[MS-OXWSCORE]:
Core Items Web Service Protocol

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Revision Summary

Date	Revision History	Revision Class	Comments
07/15/2009	1.0	Major	Initial Availability.
11/04/2009	1.1.0	Minor	1.1.0
02/10/2010	1.1.0	None	Version 1.1.0 release
05/05/2010	1.1.1	Editorial	Revised and edited the technical content.
08/04/2010	2.0	Major	Significantly changed the technical content.
11/03/2010	3.0	Major	Significantly changed the technical content.
03/18/2011	4.0	Major	Significantly changed the technical content.
08/05/2011	4.1	Minor	Clarified the meaning of the technical content.
10/07/2011	5.0	Major	Significantly changed the technical content.
01/20/2012	6.0	Major	Significantly changed the technical content.
04/27/2012	6.0	No change	No changes to the meaning, language, or formatting of the technical content.
07/16/2012	6.1	Minor	Clarified the meaning of the technical content.
10/08/2012	7.0	Major	Significantly changed the technical content.
02/11/2013	8.0	Major	Significantly changed the technical content.

Table of Contents

1   Introduction

The Core Items Web Service Protocol enables clients to create, update, and delete items on the server.

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 RFC 2119. Sections 1.5 and 1.9 are also normative but cannot contain those terms. All other sections and examples in this specification are informative.

1.1   Glossary

The following terms are defined in [MS-GLOS]:

Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)

The following terms are defined in [MS-OXGLOS]:

base64 encoding
blind carbon copy (Bcc) recipient
carbon copy (Cc) recipient
delivery receipt
endpoint
Inbox folder
Junk Email folder
mailbox
meeting
MIME message
Multipurpose Internet Mail Extensions (MIME)
Outbox folder
read receipt
recipient
Simple Object Access Protocol (SOAP)
SOAP action
SOAP body
SOAP header
SOAP message
To recipient
Uniform Resource Locator (URL)
Web Services Description Language (WSDL)
WSDL message
WSDL operation
WSDL port type
XML namespace
XML schema

The following terms are specific to this document:

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

1.2 References

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical 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. We will assist you in finding the relevant information. Please check the archive site, http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624, as an additional source.

[MS-OXWSCDATA] Microsoft Corporation, "Common Web Service Data Types".

[MS-OXWSCONT] Microsoft Corporation, "Contacts Web Service Protocol".

[MS-OXWSCONV] Microsoft Corporation, "Conversations Web Service Protocol".

[MS-OXWSDLIST] Microsoft Corporation, "Distribution List Creation and Usage Web Service Protocol".

[MS-OXWSFOLD] Microsoft Corporation, "Folders and Folder Permissions Web Service Protocol".

[MS-OXWSGTZ] Microsoft Corporation, "Get Server Time Zone Web Service Protocol".

[MS-OXWSMSG] Microsoft Corporation, "Email Message Types Web Service Protocol".

[MS-OXWSMTGS] Microsoft Corporation, "Calendaring Web Service Protocol".

[MS-OXWSPOST] Microsoft Corporation, "Post Items Web Service Protocol".

[MS-OXWSTASK] Microsoft Corporation, "Tasks Web Service Protocol".

[MS-OXWSURPT] Microsoft Corporation, "Retention Tag Web Service Protocol".

[MS-OXWSXPROP] Microsoft Corporation, "Extended Properties Structure".

[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

[RFC2818] Rescorla, E., "HTTP Over TLS", RFC 2818, May 2000, http://www.ietf.org/rfc/rfc2818.txt

[RFC3066] Alvestrand, H., "Tags for the Identification of Language", RFC 3066, January 2001, http://www.ietf.org/rfc/rfc3066.txt

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", May 2000, http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, http://www.w3.org/TR/2001/NOTE-wsdl-20010315

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, http://www.w3.org/TR/2009/REC-xml-names-20091208/

[XMLSCHEMA1] Thompson, H.S., Beech, D., Maloney, M., Eds., and Mendelsohn, N., Ed., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/

[XMLSCHEMA2] Biron, P.V., and Malhotra, A., Eds., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/

1.2.2 Informative References

[MS-GLOS] Microsoft Corporation, "Windows Protocols Master Glossary".

[MS-OXDSCLI] Microsoft Corporation, "Autodiscover Publishing and Lookup Protocol".

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

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

[MS-OXWSADISC] Microsoft Corporation, "Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol".

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, http://www.ietf.org/rfc/rfc2616.txt

1.3 Overview

The Core Items Web Service Protocol provides clients with the ability to create items such as messages, tasks, and **meetings**, or to get the properties of an existing item. Clients can also use this protocol to update, delete, move, or copy items on the server.

1.4 Relationship to Other Protocols

A client that implements this protocol can use the Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI], to identify the target **endpoint (4)** to use for each operation.

The Core Items Web Service Protocol uses the SOAP Protocol, as described in [SOAP1.1], to specify the structure information exchanged between the client and server. Additionally, this protocol uses the XML Protocol, as described in [XMLSCHEMA1] and [XMLSCHEMA2], to describe the message content sent to and from the server.

This protocol uses SOAP over **HTTP**, as described in [RFC2616], and SOAP over **HTTPS**, as described in [RFC2818], as shown in the following layering diagram.
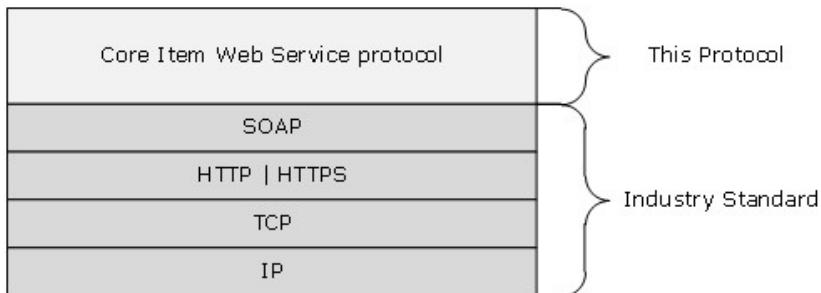
Figure 1: This protocol in relation to other protocols

The item information that is returned by the Core Items Web Service Protocol is used when requests are made by using the following protocols:

- Contacts Web Service Protocol, as described in [MS-OXWSCONT]

- Distribution List Creation and Usage Web Service Protocol, as described in [MS-OXWSDLIST]

- Email Message Types Web Service Protocol, as described in [MS-OXWSMSG]

- Calendaring Web Service Protocol, as described in [MS-OXWSMTGS]

- Post Items Web Service Protocol, as described in [MS-OXWSPOST]

- Tasks Web Service Protocol, as described in [MS-OXWSTASK]

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

1.5 Prerequistes/Preconditions

The endpoint (4) **URL** that is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI], is required to form the HTTP request to the Web server that hosts this protocol. The operations that this protocol defines cannot be accessed unless the correct endpoint (4) is identified in the HTTP Web requests that target this protocol.

1.6 Applicability Statement

This protocol is applicable to environments that create, delete, get, copy, move, or update items by using the server's Web services.

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses SOAP 1.1, as specified in section 2.1.

- **Protocol Versions:** This protocol has only one **WSDL port type** version. The **WSDL** version of the request is identified by using the **t:RequestServerVersion** element, as described in [MS-OXWSCDATA] section 2.2.5.9. The version of the server responding to the request is identified by using the **t:ServerVersionInfo** element, as described in [MS-OXWSCDATA] section 2.2.5.10.

- **Security and Authentication Methods:** This protocol relies on the Web server that is hosting it to perform authentication.

- **Localization:** This protocol includes text strings in various messages. Localization considerations for such strings are specified in sections 2.2 and 3.1.4.

- **Capability Negotiation:** None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2   Messages

In the following sections, the schema definition might differ from the processing rules imposed by the protocol. The WSDL in this specification provides a base description of the protocol. The schema in this specification provides a base description of the message syntax. The text that specifies the WSDL and schema might specify restrictions that reflect actual protocol behavior. For example, the schema definition might allow for an element to be **empty**, **null**, or **not present** but the behavior of the protocol as specified restricts the same elements to being **non-empty**, **not null**, or **present**.

2.1   Transport

The SOAP version supported is SOAP 1.1. For details, see [SOAP1.1].

This protocol relies on the Web server that hosts the application to perform authentication. The protocol SHOULD use secure communications via HTTPS, as defined in [RFC2818].

2.2   Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as defined in [XMLSCHEMA1] and [XMLSCHEMA2], and Web Services Description Language (WSDL), as defined in [WSDL].

2.2.1   Namespaces

This specification defines and references various **XML namespaces** by using the mechanisms specified in [XMLNS]. Although this specification associates a specific XML namespace prefix for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
tns	http://schemas.microsoft.com/exchange/services/2006/messages	
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1]
targetNamespace	http://schemas.microsoft.com/exchange/services/2006/messages	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
t	http://schemas.microsoft.com/exchange/services/2006/types	

2.2.2   Messages

This specification does not define any common **WSDL message** definitions.

2.2.3   Elements

The following table lists the set of common XML schema element definitions that are defined by this specification. XML schema element definitions that are specific to a particular operation are defined with the operation.

Element name	Description
BaseItemId	Specifies the base class for IDs that represent items in a **mailbox**.
ManagementRole	Specifies the roles the user or application wants to use.

2.2.3.1 t:BaseItemId Element

The **BaseItemId** element specifies the base class for IDs that represent items in a mailbox.

```
<xs:element name="t:BaseItemId"
  type="t:BaseItemIdType"
  abstract="true"
 />
```

2.2.3.2 t:ManagementRole Element

The **ManagementRole** element specifies the roles the user or application wants to use.<1>

```
<xs:element name="ManagementRole" type="t:ManagementRoleType"/>
```

2.2.4 Complex Types

The following table lists the set of common XML schema complex type definitions that are defined by this specification. XML schema complex type definitions that are specific to a particular operation are defined with the operation.

Complex type	Description
ArrayOfOccurrenceRangesType	Specifies an array of occurrence ranges <2>
FlagType	Specifies a flag indicating status, start date, due date, or completion date for an item. <3>
BaseMoveCopyItemType	Specifies the base type for the **CopyItemType** complex type (section 3.1.4.1.3.2) and the **MoveItemType** complex type (section 3.1.4.7.3.2).
SendItemResponseType	Specifies a response to a call to the **SendItem** operation ([MS-OXWSMSG] section 3.1.4.7).
SendItemType	Specifies a request to send a message.
UpdateItemResponseMessageType	Specifies the status and result of a single call to the **UpdateItem** operation (section 3.1.4.9).
ConflictResultsType	Specifies the number of conflicts in an **UpdateItem** operation response.
ItemType	Specifies a generic item in the server data store.<4>
ManagementRoleType	Specifies the roles that are associated with a user or application.
MimeContentType	Specifies the native **MIME** stream of an object that is

Complex type	Description
	represented in base64-encoded binary format.
NonEmptyArrayOfBaseItemIdsType	Specifies a collection of items.
NonEmptyArrayOfInternetHeadersType	Specifies the collection of all Internet message headers that are contained in an item.
NonEmptyArrayOfResponseObjectsType	Specifies an array of response objects.
NonEmptyArrayOfRoleType	Specifies an array of role types.
OccurrenceItemIdType	Specifies a single occurrence of a recurring item.
OccurrencesRangeType	Specifies a range of occurrences.<5>
RecurringMasterItemIdType	Specifies a recurrence master item by identifying the identifiers of one of its related occurrence items.
RecurringMasterItemIdRangesType	Specifies a union of all occurrences of a recurring master item, which fit into at least one of the specified ranges.<6>
ItemIdType	Specifies the item identifier (ID) of an item.
ReferenceItemResponseType	Specifies a referenced item for a response object.
SmartResponseBaseType	Specifies the base type for **ReplyToItem**, **ReplyAllToItem**, **ForwardItem**, and **CancelCalendarItem** operation response objects.
SmartResponseType	Specifies the base type for **ReplyToItem**, **ReplyAllToItem**, **ForwardItem**, and **CancelCalendarItem** operation response objects.
ArrayOfAddressesType	Specifies an array of addresses.<7>
ArrayOfMeetingSuggestionsType	Specifies an array of meeting suggestions.<8>
MeetingSuggestionType	Specifies a meeting suggestion.<9>
ArrayOfTaskSuggestionsType	Specifies an array of task suggestions.<10>
ArrayOfContactsType	Specifies an array of contacts.<11>
ContactType	Specifies the type of a contact.<12>
ArrayOfUrlsType	Specifies an array of URLs.<13>
ArrayOfPhonesType	Specifies an array of phone numbers.<14>
PhoneType	Specifies a phone number and its type.<15>
ArrayOfEmailUsersType	Specifies an array of email users.<16>
EmailUserType	Specifies an email user.<17>
TaskSuggestionType	Specifies a task suggestion.<18>
ArrayOfExtractedEmailAddresses	Specifies an array of email addresses.<19>
EntityExtractionResultType	Specifies the result of an entity extraction.<20>

Complex type	Description
RightsManagementLicenseDataType	Specifies information about the rights management license.<21>
EntityType	Specifies a single entity.<22>
ArrayOfAddressEntitiesType	Specifies an array of address entities.<23>
AddressEntityType	Specifies an address entity.<24>
ArrayOfEmailAddressEntitiesType	Specifies an array of email address entities.<25>
EmailAddressEntityType	Specifies an email address entity.<26>
ArrayOfPhoneEntitiesType	Specifies an array of phone entities.<27>
PhoneEntityType	Specifies a phone entity.<28>
ArrayOfUrlEntitiesType	Specifies an array of URL entities.<29>
UrlEntityType	Specifies a URL entity.<30>

2.2.4.1   t:ArrayOfOccurrenceRangesType Complex Type

The **ArrayOfOccurrenceRangesType** complex type specifies an array of occurrence ranges.<31>

```
<xs:complexType name="ArrayOfOccurrenceRangesType">
    <xs:sequence>
        <xs:element name="Range" type="t:OccurrencesRangeType" maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
```

Range: An element of type **OccurrencesRangeType**, as defined in section 2.2.4.16, that represents a single occurrence range.

2.2.4.2   t:FlagType Complex Type

The **FlagType** complex type specifies a flag indicating status, start date, due date, or completion date for an item.<32>

```
<xs:complexType name="FlagType">
    <xs:sequence>
        <xs:element name="FlagStatus" type="t:FlagStatusType" minOccurs="1" maxOccurs="1"/>
        <xs:element name="StartDate" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="DueDate" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="CompleteDate" type="xs:dateTime" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
```

FlagStatus: An element of type **FlagStatusType**, as defined in [MS-OXWSCONV] section 3.1.4.1.4.2, that represents the flag status.

StartDate: An element of type **dateTime**, as defined in [XMLSCHEMA2] section 3.2.7, that represents the start date.

DueDate: An element of type **dateTime** that represents the due date.

CompleteDate: An element of type **dateTime** that represents the completion date.

2.2.4.3   m:BaseMoveCopyItemType Complex Type

The **BaseMoveCopyItemType** complex type specifies the base type for the **CopyItemType** complex type, as specified in section 3.1.4.1.3.2, and the **MoveItemType** complex type, as specified in section 3.1.4.7.3.2. The **BaseMoveCopyItemType** complex type extends the **BaseRequestType** complex type ([MS-OXWSCDATA] section 2.2.4.15).

```
<xs:complexType name="BaseMoveCopyItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="ToFolderId"
          type="t:TargetFolderIdType"
         />
        <xs:element name="ItemIds"
          type="t:NonEmptyArrayOfBaseItemIdsType"
         />
        <xs:element name="ReturnNewItemIds"
          type="xs:boolean"
          minOccurs="0"
         />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the child elements of the **BaseMoveCopyItemType** complex type.

Element name	Type	Description
ToFolderId	**t:TargetFolderIdType** ([MS-OXWSFOLD] section 2.2.4.14)	Specifies an instance of the **TargetFolderIdType** complex type that specifies the folder to which the items specified by the **ItemIds** property are to be moved or copied.
ItemIds	**t:NonEmptyArrayOfBaseItemIdsType** (section 2.2.4.11)	Specifies an array of elements of type **BaseItemIdType** that specifies a set of items to be moved or copied.
ReturnNewItemIds	**xs:boolean** [XMLSCHEMA2]	Specifies a Boolean return value that indicates whether the **ItemId** element is to be returned for new items. This element SHOULD<33> be included.

2.2.4.4   m:SendItemResponseType Complex Type

The **SendItemResponseType** complex type specifies a response to a call to the **SendItem** operation, as specified in section 3.1.4.8. The **SendItemResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
<xs:complexType name="SendItemResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
    />
  </xs:complexContent>
</xs:complexType>
```

2.2.4.5   m:SendItemType Complex Type

The **SendItemType** complex type specifies a request to send a message. The **SendItemType** complex type extends the **BaseRequestType** complex type ([MS-OXWSCDATA] section 2.2.4.15).

```
<xs:complexType name="SendItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="ItemIds"
          type="t:NonEmptyArrayOfBaseItemIdsType"
        />
        <xs:element name="SavedItemFolderId"
          type="t:TargetFolderIdType"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the child elements of the **SendItemType** complex type.

Element name	Type	Description
ItemIds	**t:NonEmptyArrayOfBaseItemIdsType** (section 2.2.4.11)	Specifies an array of item identifiers for the items to try to send.
SavedItemFolderId	**t:TargetFolderIdType** ([MS-OXWSFOLD] section 2.2.4.14)	Specifies the identity of the folder that contains a saved version of a sent item.

2.2.4.6   m:UpdateItemResponseMessageType Complex Type

The **UpdateItemResponseMessageType** complex type specifies the status and result of a single call to the **UpdateItem** operation, as specified in section 3.1.4.9. The

UpdateItemResponseMessageType complex type extends the
ItemInfoResponseMessageType complex type ([MS-OXWSCDATA] section 2.2.4.37).

```
<xs:complexType name="UpdateItemResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ItemInfoResponseMessageType"
    >
      <xs:sequence>
        <xs:element name="ConflictResults"
          type="t:ConflictResultsType"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the child elements of the
UpdateItemResponseMessageType complex type.

Element name	Type	Description
ConflictResults	**t:ConflictResultsType** (section 2.2.4.7)	Specifies the number of conflicts in the result of a single call.

2.2.4.7   t:ConflictResultsType Complex Type

The **ConflictResultsType** complex type specifies the number of conflicts in an **UpdateItem**
operation response, as specified in section 3.1.4.9.

```
<xs:complexType name="ConflictResultsType">
  <xs:sequence>
    <xs:element name="Count"
      type="xs:int"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists and describes the child elements of the **ConflictResultsType** complex type.

Element name	Type	Description
Count	**xs:int** [XMLSCHEMA2]	Specifies an integer value that indicates the number of conflicts in an **UpdateItem** operation response.

2.2.4.8   t:ItemType Complex Type

The **ItemType** complex type specifies a generic item on the server.<34>

```
<xs:complexType name="ItemType">
```

```
    <xs:sequence>
        <xs:element name="MimeContent" type="t:MimeContentType" minOccurs="0"/>
        <xs:element name="ItemId" type="t:ItemIdType" minOccurs="0"/>
        <xs:element name="ParentFolderId" type="t:FolderIdType" minOccurs="0"/>
        <xs:element name="ItemClass" type="t:ItemClassType" minOccurs="0"/>
        <xs:element name="Subject" type="xs:string" minOccurs="0"/>
        <xs:element name="Sensitivity" type="t:SensitivityChoicesType" minOccurs="0"/>
        <xs:element name="Body" type="t:BodyType" minOccurs="0"/>
        <xs:element name="Attachments" type="t:NonEmptyArrayOfAttachmentsType"
minOccurs="0"/>
        <xs:element name="DateTimeReceived" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="Size" type="xs:int" minOccurs="0"/>
        <xs:element name="Categories" type="t:ArrayOfStringsType" minOccurs="0"/>
        <xs:element name="Importance" type="t:ImportanceChoicesType" minOccurs="0"/>
        <xs:element name="InReplyTo" type="xs:string" minOccurs="0"/>
        <xs:element name="IsSubmitted" type="xs:boolean" minOccurs="0"/>
        <xs:element name="IsDraft" type="xs:boolean" minOccurs="0"/>
        <xs:element name="IsFromMe" type="xs:boolean" minOccurs="0"/>
        <xs:element name="IsResend" type="xs:boolean" minOccurs="0"/>
        <xs:element name="IsUnmodified" type="xs:boolean" minOccurs="0"/>
        <xs:element name="InternetMessageHeaders" type="t:NonEmptyArrayOfInternetHeadersType"
minOccurs="0"/>
        <xs:element name="DateTimeSent" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="DateTimeCreated" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="ResponseObjects" type="t:NonEmptyArrayOfResponseObjectsType"
minOccurs="0"/>
        <xs:element name="ReminderDueBy" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="ReminderIsSet" type="xs:boolean" minOccurs="0"/>
        <xs:element name="ReminderNextTime" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="ReminderMinutesBeforeStart" type="t:ReminderMinutesBeforeStartType"
minOccurs="0"/>
        <xs:element name="DisplayCc" type="xs:string" minOccurs="0"/>
        <xs:element name="DisplayTo" type="xs:string" minOccurs="0"/>
        <xs:element name="HasAttachments" type="xs:boolean" minOccurs="0"/>
        <xs:element name="ExtendedProperty" type="t:ExtendedPropertyType" minOccurs="0"
maxOccurs="unbounded"/>
        <xs:element name="Culture" type="xs:language" minOccurs="0"/>
        <xs:element name="EffectiveRights" type="t:EffectiveRightsType" minOccurs="0"/>
        <xs:element name="LastModifiedName" type="xs:string" minOccurs="0"/>
        <xs:element name="LastModifiedTime" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="IsAssociated" type="xs:boolean" minOccurs="0"/>
        <xs:element name="WebClientReadFormQueryString" type="xs:string" minOccurs="0"/>
        <xs:element name="WebClientEditFormQueryString" type="xs:string" minOccurs="0"/>
        <xs:element name="ConversationId" type="t:ItemIdType" minOccurs="0"/>
        <xs:element name="UniqueBody" type="t:BodyType" minOccurs="0"/>
        <xs:element name="Flag" type="t:FlagType" minOccurs="0"/>
        <xs:element name="StoreEntryId" type="xs:base64Binary" minOccurs="0"/>
        <xs:element name="InstanceKey" type="xs:base64Binary" minOccurs="0"/>
        <xs:element name="NormalizedBody" type="t:BodyType" minOccurs="0"/>
        <xs:element name="EntityExtractionResult" type="t:EntityExtractionResultType"
minOccurs="0" />
        <xs:element name="PolicyTag" type="t:RetentionTagType" minOccurs="0"/>
        <xs:element name="ArchiveTag" type="t:RetentionTagType" minOccurs="0"/>
        <xs:element name="RetentionDate" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="Preview" type="xs:string" minOccurs="0"/>
        <xs:element name="RightsManagementLicenseData"
type="t:RightsManagementLicenseDataType" minOccurs="0" />
        <xs:element name="NextPredictedAction" type="t:PredictedMessageActionType"
minOccurs="0" />
        <xs:element name="GroupingAction" type="t:PredictedMessageActionType" minOccurs="0"/>
```

```
            <xs:element name="BlockStatus" type="xs:boolean" minOccurs="0" />
            <xs:element name="HasBlockedImages" type="xs:boolean" minOccurs="0" />
            <xs:element name="TextBody" type="t:BodyType" minOccurs="0"/>
            <xs:element name="IconIndex" type="t:IconIndexType" minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
```

The following table lists and describes the child elements of the **ItemType** complex type.

Element name	Type	Description
MimeContent	**t:MimeContentType** (section 2.2.4.10)	Specifies an instance of the **MimeContentType** class that contains the native MIME stream of an object that is represented in **base64Binary** format.
ItemId	**t:ItemIdType** (section 2.2.4.19)	Specifies an instance of the **ItemIdType** class that represents the unique identifier and change key of an item in the server data store.
ParentFolderId	**t:FolderIdType** ([MS-OXWSCDATA] section 2.2.4.31)	Specifies an instance of the **FolderIdType** class that represents the identifier of the parent folder that contains an item or folder.
ItemClass	**t:ItemClassType** (section 2.2.5.4)	Specifies a string value that indicates the message class of an item.
Subject	**xs:string** [XMLSCHEMA2]	Specifies a string value that represents the subject property of items. This value is limited to 255 characters. If the calendar item is a room mailbox, the Subject element contains the organizer's name.
Sensitivity	**t:SensitivityChoicesType** ([MS-OXWSCDATA] section 2.2.3.24)	Specifies one of the valid **SensitivityChoicesType** simple type enumeration values that indicates the sensitivity level of an item.
Body	**t:BodyType** ([MS-OXWSCDATA] section 2.2.4.17)	Specifies the body content of an item.
Attachments	**t:NonEmptyArrayOfAttachmentsType** ([MS-OXWSCDATA] section 2.2.4.43)	Specifies an **AttachmentType** array that contains the items or files that are attached to an item.
DateTimeReceived	**xs:dateTime** [XMLSCHEMA2]	Specifies the date and time

Element name	Type	Description
		that an item was received in a mailbox.
Size	**xs:int** [XMLSCHEMA2]	Specifies an integer value that represents the size of an item, in bytes.
Categories	**t:ArrayOfStringsType** ([MS-OXWSCDATA] section 2.2.4.11)	Specifies a string array that identifies the categories to which an item in a mailbox belongs.
Importance	**t:ImportanceChoicesType** (section 2.2.5.3)	Specifies one of the valid **ImportanceChoicesType** values to indicate the importance of an item.
InReplyTo	**xs:string**	Specifies a string value that contains the identifier of the item to which this item is a reply.
IsSubmitted	**xs:boolean** [XMLSCHEMA2]	Specifies a Boolean value that indicates whether an item has been submitted to the **Outbox folder**.
IsDraft	**xs:boolean**	Specifies a Boolean value that indicates whether an item has been sent.
IsFromMe	**xs:boolean**	Specifies a Boolean value that indicates whether a user sent an item to himself or herself.
IsResend	**xs:boolean**	Specifies a Boolean value that indicates whether an item has previously been sent.
IsUnmodified	**xs:boolean**	Specifies a Boolean value that indicates whether an item has been modified.
InternetMessageHeaders	**t:NonEmptyArrayOfInternetHeadersType** (section 2.2.4.12)	Specifies an array of the type **InternetHeaderType** that represents the collection of all Internet message headers that are contained in an item in a mailbox.
DateTimeSent	**xs:dateTime**	Specifies the date and time when an item in a mailbox was sent.
DateTimeCreated	**xs:dateTime**	Specifies the date and time when an item in a mailbox was created.

Element name	Type	Description
ResponseObjects	t:NonEmptyArrayOfResponseObjects Type (section 2.2.4.13)	Specifies an array of type ResponseObjectType that contains a collection of all the response objects that are associated with an item.
ReminderDueBy	xs:dateTime	Specifies an instance of the DateTime structure that represents the date and time when an event is to occur. This is used by the ReminderMinutesBeforeStart element to determine when the reminder is displayed.
ReminderIsSet	xs:boolean	Specifies a Boolean value that indicates whether a reminder has been set for an item.
ReminderNextTime	xs:dateTime	Specifies the date and time for the next reminder.
ReminderMinutesBeforeStart	t:ReminderMinutesBeforeStartType (section 2.2.5.5)	Specifies a string value that indicates the number of minutes before an event occurs when a reminder is displayed.
DisplayCc	xs:string	Specifies the display string that is used for the contents of the Cc box. This is the concatenated string of all **Cc recipient** display names.
DisplayTo	xs:string	Specifies the display string that is used for the contents of the To box. This is the concatenated string of all **To recipient** display names.
HasAttachments	xs:boolean	Specifies a Boolean value that indicates whether an item has at least one attachment.
ExtendedProperty	t:ExtendedPropertyType ([MS-OXWSXPROP] section 2.1.5)	Specifies an array of ExtendedPropertyType elements that identify extended MAPI properties.
Culture	xs:language ([XMLSCHEMA2])	Specifies the culture for an item in a mailbox.
EffectiveRights	t:EffectiveRightsType ([MS-OXWSCDATA] section 2.2.4.25)	Specifies an EffectiveRightsType element that represents the client's rights based on the

Element name	Type	Description
		permission settings for an item or folder.
LastModifiedName	**xs:string**	Specifies a string value that contains the name of the user who last modified an item.
LastModifiedTime	**xs:dateTime**	Specifies an instance of the **DateTime** structure that represents the date and time when an item was last modified.
IsAssociated	**xs:boolean**	Specifies a value that indicates whether this is an associated item.
WebClientReadFormQueryStr ing	**xs:string**	Specifies the query string that should be appended to the Web client URL to open an item by using the appropriate read form in a Web browser.
WebClientEditFormQueryStri ng	**xs:string**	Specifies the query string that should be appended to the Web client URL to open an item by using the appropriate edit form in a Web browser.
ConversationId	**t:ItemIdType**	Specifies the ID of the conversation that an item is part of.
UniqueBody	**t:BodyType** ([MS-OXWSCDATA] section 2.2.4.17)	Specifies the body part that is unique to the conversation that an item is part of.
Flag	**t:FlagType** (section 2.2.4.2)	Specifies a flag indicating status, start date, due date or completion date for an item .<35>
StoreEntryId	**xs:base64Binary** ([XMLSCHEMA2])	Specifies the entry ID of the store that hosts an item. This element SHOULD<36> be included.
InstanceKey	**xs:base64Binary**	Specifies the key for an instance.<37>
NormalizedBody	**t:BodyType** ([MS-OXWSCDATA] section 2.2.4.17)	Specifies the version of the body of a message visible in the preview pane when accessing a message over the Internet.<38>

Element name	Type	Description
EntityExtractionResult	**t:EntityExtractionResultType** (section 2.2.4.36)	Specifies the result of an entity extraction .<39>
PolicyTag	**t:RetentionTagType** ([MS-OXWSURPT] section 2.2.4.1)	Specifies the retention policy for the item.<40>
ArchiveTag	**t:RetentionTagType**	Specifies an archive tag.<41>
RetentionDate	**xs:dateTime**	Specifies the retention date for an item.<42>
Preview	**xs:string**	Specifies the first 256 characters of the body of a message for preview without opening the message.<43>
RightsManagementLicenseData	**t:RightsManagementLicenseDataType** (section 2.2.4.37)	Specifies rights management license data.<44>
NextPredictedAction	**t:PredictedMessageActionType** ([MS-OXWSCDATA] section 2.2.3.21)	Specifies the next predicted action for the item.<45>
GroupingAction	**t:PredictedMessageActionType**	Specifies that the next predicted action is grouping items.<46>
BlockStatus	**xs:boolean**	Indicates whether images are blocked.<47>
HasBlockedImages	**xs:boolean**	Indicates whether the item has blocked images.<48>
TextBody	**t:BodyType**	Specifies the text body of the item.<49>
IconIndex	**t:IconIndexType** ([MS-OXWSCDATA] section 2.2.3.16)	Specifies the index of the icon for the item.<50>

2.2.4.9   t:ManagementRoleType Complex Type

The **ManagementRoleType** complex type specifies the roles that are associated with a user or application.<51>

```
<xs:complexType name="ManagementRoleType">
  <xs:sequence>
    <xs:element name="UserRoles" type="t:NonEmptyArrayOfRoleType" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="ApplicationRoles" type="t:NonEmptyArrayOfRoleType" minOccurs="0"
maxOccurs="1"/>
  </xs:sequence>
</xs:complexType>
```

The following table lists and describes the elements of the **ManagementRoleType** complex type.

Element name	Type	Description
UserRoles	t:NonEmptyArrayOfRoleType (section 2.2.4.14)	Specifies an array of elements of type **string** that specifies a set of user roles.
ApplicationRoles	t:NonEmptyArrayOfRoleType (section 2.2.4.14)	Specifies an array of elements of type **string** that specifies a set of application roles.

2.2.4.10   t:MimeContentType Complex Type

The **MimeContentType** complex type specifies the native MIME stream of an object that is represented in **base64 encoding**.

```
<xs:complexType name="MimeContentType">
  <xs:simpleContent>
    <xs:extension
      base="xs:string"
    >
      <xs:attribute name="CharacterSet"
        type="xs:string"
        use="optional"
      />
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

The following table lists and describes the attributes of the **MimeContentType** complex type.

Attribute name	Type	Description
CharacterSet	xs:string [XMLSCHEMA2]	Specifies the International Standards Organization (ISO) name of the character set that is used in a **MIME message**.

2.2.4.11   t:NonEmptyArrayOfBaseItemIdsType Complex Type

The **NonEmptyArrayOfBaseItemIdsType** complex type specifies a collection of items.

```
<xs:complexType name="NonEmptyArrayOfBaseItemIdsType">
    <xs:choice maxOccurs="unbounded">
      <xs:element name="ItemId" type="t:ItemIdType"/>
      <xs:element name="OccurrenceItemId" type="t:OccurrenceItemIdType"/>
      <xs:element name="RecurringMasterItemId" type="t:RecurringMasterItemIdType"/>
      <xs:element name="RecurringMasterItemIdRanges"
type="t:RecurringMasterItemIdRangesType"/>
    </xs:choice>
  </xs:complexType>
```

The following table lists and describes the child elements of the **NonEmptyArrayOfBaseItemIdsType** complex type.

Element name	Type	Description
ItemId	**t:ItemIdType** (section 2.2.4.19)	Specifies the item identifier.
OccurrenceItemId	**t:OccurrenceItemIdType** (section 2.2.4.15)	Specifies a single occurrence of a recurring item.
RecurringMasterItemId	**t:RecurringMasterItemIdType** (section 2.2.4.17)	Specifies a recurrence master item by indicating the identifier of one of the master item's related occurrence items.
RecurringMasterItemIdRanges	**RecurringMasterItemIdRangesType** (section 2.2.4.18)	Specifies a union of all occurrences of a recurring master, which fit into at least one of the specified ranges.<52>

2.2.4.12   t:NonEmptyArrayOfInternetHeadersType Complex Type

The **NonEmptyArrayOfInternetHeadersType** complex type specifies the collection of all Internet message headers that are contained in an item.

```
<xs:complexType name="NonEmptyArrayOfInternetHeadersType">
  <xs:sequence>
    <xs:element name="InternetMessageHeader"
      type="t:InternetHeaderType"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists and describes the child elements of the **NonEmptyArrayOfInternetHeadersType** complex type.

Element name	Type	Description
InternetMessageHeader	**t:InternetHeaderType** ([MS-OXWSCDATA] section 2.2.4.35)	Specifies a single Internet message header.

2.2.4.13   t:NonEmptyArrayOfResponseObjectsType Complex Type

The **NonEmptyArrayOfResponseObjectsType** complex type specifies an array of response objects.

```
<xs:complexType name="NonEmptyArrayOfResponseObjectsType">
  <xs:choice
    maxOccurs="unbounded"
    minOccurs="0"
  >
```

```
        <xs:element name="AcceptItem"
          type="t:AcceptItemType"
         />
        <xs:element name="TentativelyAcceptItem"
          type="t:TentativelyAcceptItemType"
         />
        <xs:element name="DeclineItem"
          type="t:DeclineItemType"
         />
        <xs:element name="ReplyToItem"
          type="t:ReplyToItemType"
         />
        <xs:element name="ForwardItem"
          type="t:ForwardItemType"
         />
        <xs:element name="ReplyAllToItem"
          type="t:ReplyAllToItemType"
         />
        <xs:element name="CancelCalendarItem"
          type="t:CancelCalendarItemType"
         />
        <xs:element name="RemoveItem"
          type="t:RemoveItemType"
         />
        <xs:element name="SuppressReadReceipt"
          type="t:SuppressReadReceiptType"
         />
        <xs:element name="PostReplyItem"
          type="t:PostReplyItemType"
         />
        <xs:element name="AcceptSharingInvitation"
          type="t:AcceptSharingInvitationType"
         />
      </xs:choice>
    </xs:complexType>
```

The following table lists and describes the child elements of the
NonEmptyArrayOfResponseObjectsType complex type.

Element name	Type	Description
AcceptItem	**t:AcceptItemType** ([MS-OXWSMTGS] section 2.2.4.1)	Specifies an Accept reply to a meeting request.
TentativelyAcceptItem	**t:TentativelyAcceptItemType** ([MS-OXWSMTGS] section 2.2.4.22)	Specifies a Tentative reply to a meeting request.
DeclineItem	**t:DeclineItemType** ([MS-OXWSMTGS] section 2.2.4.9)	Specifies a Decline reply to a meeting request.
ReplyToItem	**t:ReplyToItemType** ([MS-OXWSCDATA] section 2.2.4.56)	Specifies a reply to the sender of an item.
ForwardItem	**t:ForwardItemType** ([MS-OXWSCDATA] section 2.2.4.33)	Specifies a server store item to be forwarded to **recipients**.
ReplyAllToItem	**t:ReplyAllToItemType** ([MS-	Specifies a reply to the sender and

Element name	Type	Description
	OXWSCDATA] section 2.2.4.54)	all identified recipients of an item in the server store.
CancelCalendarItem	**t:CancelCalendarItemType** ([MS-OXWSMTGS] section 2.2.4.8)	Specifies the response object that is used to cancel a meeting.
RemoveItem	**t:RemoveItemType** ([MS-OXWSMTGS] section 2.2.4.21)	Specifies a response object that is used to remove a meeting item when a **MeetingCancellation** message is received.
SuppressReadReceipt	**t:SuppressReadReceiptType** ([MS-OXWSCDATA] section 2.2.4.61)	Specifies that read receipts are to be suppressed.
PostReplyItem	**t:PostReplyItemType** ([MS-OXWSPOST] section 2.2.4.3)	Specifies a reply to a post item.
AcceptSharingInvitation	**t:AcceptSharingInvitationType** ([MS-OXWSCDATA] section 2.2.4.3)	Specifies that sharing invitations are to be accepted.

2.2.4.14   t:NonEmptyArrayOfRoleType Complex Type

The **NonEmptyArrayOfRoleType** complex type specifies an array of role types.<53>

```
<xs:complexType name="NonEmptyArrayOfRoleType">
  <xs:sequence>
    <xs:element name="Role" type="xs:string" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

The following table lists and describes the child elements of the **NonEmptyArrayOfRoleType** complex type.

Element name	Type	Description
Role	**xs:string** [XMLSCHEMA2]	Specifies the name of a role.

2.2.4.15   t:OccurrenceItemIdType Complex Type

The **OccurrenceItemIdType** complex type specifies a single occurrence of a recurring item. The **OccurrenceItemIdType** complex type extends the **BaseItemIdType** complex type ([MS-OXWSCDATA] section 2.2.4.13).

```
<xs:complexType name="OccurrenceItemIdType">
  <xs:complexContent>
    <xs:extension
      base="t:BaseItemIdType"
    >
      <xs:attribute name="RecurringMasterId"
        type="t:DerivedItemIdType"
        use="required"
      />
```

```
        <xs:attribute name="ChangeKey"
          type="xs:string"
          use="optional"
         />
        <xs:attribute name="InstanceIndex"
          type="xs:int"
          use="required"
         />
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
```

The following table lists and describes the attributes of the **OccurrenceItemIdType** complex type.

Attribute name	Type	Description
RecurringMasterId	**t:DerivedItemIdType** (section 2.2.5.1)	Specifies the identifier of the recurring master of a recurring item.
ChangeKey	**xs:string** [XMLSCHEMA2]	Specifies a specific version of a single occurrence of a recurring master item.
InstanceIndex	**xs:int** [XMLSCHEMA2]	Specifies the index of an item occurrence.

2.2.4.16   t:OccurrencesRangeType Complex Type

The **OccurrencesRangeType** complex type specifies a range of occurrences.<54>

```
  <xs:complexType name="OccurrencesRangeType">
      <xs:attribute name="Start" type="xs:dateTime" use="optional"/>
      <xs:attribute name="End" type="xs:dateTime" use="optional"/>
      <xs:attribute name="Count" type="xs:int" use="optional"/>
      <xs:attribute name="CompareOriginalStartTime" type="xs:boolean" use="optional"/>
  </xs:complexType>
```

Start: An attribute of type **dateTime**, as defined in [XMLSCHEMA2] section 3.2.7, that represents the start of the range.

End: An attribute of type **dateTime** that represents the end of the range.

Count: An attribute of type **integer**, as defined in [XMLSCHEMA2] section 3.3.13, that represents the number of occurrences.

CompareOriginalStartTime: An attribute of type **boolean**, as defined in [XMLSCHEMA2] section 3.2.2, that indicates whether to compare the specified ranges to either an original start time or a pair of start and end values. The default value of the **CompareOriginalStartTime** attribute is "false".

2.2.4.17   t:RecurringMasterItemIdType Complex Type

The **RecurringMasterItemIdType** complex type specifies a recurrence master item by indicating the identifiers of one of the master item's related occurrence items. The **RecurringMasterItemIdType** complex type extends the **BaseItemIdType** complex type ([MS-OXWSCDATA] section 2.2.4.13).

```
<xs:complexType name="RecurringMasterItemIdType">
  <xs:complexContent>
    <xs:extension
      base="t:BaseItemIdType"
    >
      <xs:attribute name="OccurrenceId"
        type="t:DerivedItemIdType"
        use="required"
      />
      <xs:attribute name="ChangeKey"
        type="xs:string"
        use="optional"
      />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the attributes of the **RecurringMasterItemIdType** complex type.

Attribute name	Type	Description
OccurrenceId	**t:DerivedItemIdType** (section 2.2.5.1)	Specifies a single occurrence of a recurring master item.
ChangeKey	**xs:string** [XMLSCHEMA2]	Specifies a specific version of a single occurrence of a recurring master item.

2.2.4.18   t:RecurringMasterItemIdRangesType Complex Type

The **RecurringMasterItemIdRangesType** complex type specifies a union of all occurrences of a recurring master item, which fit into at least one of the specified ranges. This type extends the **ItemIdType** complex type, as specified by section 2.2.4.19.<55>

```
<xs:complexType name="RecurringMasterItemIdRangesType">
  <xs:complexContent>
    <xs:extension base="t:ItemIdType">
      <xs:sequence>
        <xs:element name="Ranges" type="t:ArrayOfOccurrenceRangesType" minOccurs="0"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table describes the child element of the **RecurringMasterItemIdRangesType** complex type.

Element	Type	Description
Ranges	**t:ArrayOfOccurrenceRangesType** (section 2.2.4.1)	Specifies an array of occurrence ranges.

2.2.4.19   t:ItemIdType Complex Type

The **ItemIdType** complex type specifies an item identifier of an item. The **ItemIdType** complex type extends the **BaseItemIdType** complex type ([MS-OXWSCDATA] section 2.2.4.13).

```
<xs:complexType name="ItemIdType">
  <xs:complexContent>
    <xs:extension
      base="t:BaseItemIdType"
    >
      <xs:attribute name="Id"
        type="xs:string"
        use="required"
      />
      <xs:attribute name="ChangeKey"
        type="xs:string"
        use="optional"
      />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the attributes of the **ItemIdType** complex type.

Attribute name	Type	Description
Id	**xs:string** [XMLSCHEMA2]	Specifies an item identifier. The maximum size of this attribute is 512 bytes after base64 encoding.
ChangeKey	**xs:string**	Specifies a change key. The maximum size of this attribute is 512 bytes after base64 encoding.

2.2.4.20   t:ReferenceItemResponseType Complex Type

The **ReferenceItemResponseType** complex type specifies a referenced item for a response object. The **ReferenceItemResponseType** complex type extends the **ResponseObjectType** complex type ([MS-OXWSCDATA] section 2.2.4.59).

```
<xs:complexType name="ReferenceItemResponseType">
  <xs:complexContent>
    <xs:restriction
      base="t:ResponseObjectType"
    >
      <xs:sequence>
        <xs:element name="ReferenceItemId"
          type="t:ItemIdType"
          minOccurs="0"
        />
      </xs:sequence>
      <xs:attribute name="ObjectName"
        type="xs:string"
        use="prohibited"
      />
    </xs:restriction>
  </xs:complexContent>
```

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```
    </xs:complexType>
```

The following table lists and describes the child elements of the **ReferenceItemResponseType** complex type.

Element name	Type	Description
ReferenceItemId	**t:ItemIdType** (section 2.2.4.19)	Specifies the referenced item identifier.
ObjectName	**xs:string** [XMLSCHEMA2]	Specifies the name of the reply object class as a string.

2.2.4.21   t:SmartResponseBaseType Complex Type

The **SmartResponseBaseType** complex type specifies the base type for the **ReplyToItemType** complex type ([MS-OXWSCDATA] section 2.2.4.56), the **ReplyAllToItemType** complex type ([MS-OXWSCDATA] section 2.2.4.54), the **ForwardItemType** complex type ([MS-OXWSCDATA] section 2.2.4.33), and the **CancelCalendarItemType** complex type, as specified in [MS-OXWSMTGS] section 2.2.4.8. The **SmartResponseBaseType** complex type extends the **ResponseObjectType** complex type ([MS-OXWSCDATA] section 2.2.4.59).

```
<xs:complexType name="SmartResponseBaseType">
  <xs:complexContent>
    <xs:restriction
      base="t:ResponseObjectType"
    >
      <xs:sequence>
        <xs:element name="Subject"
          type="xs:string"
          minOccurs="0"
         />
        <xs:element name="Body"
          type="t:BodyType"
          minOccurs="0"
         />
        <xs:element name="ToRecipients"
          type="t:ArrayOfRecipientsType"
          minOccurs="0"
         />
        <xs:element name="CcRecipients"
          type="t:ArrayOfRecipientsType"
          minOccurs="0"
         />
        <xs:element name="BccRecipients"
          type="t:ArrayOfRecipientsType"
          minOccurs="0"
         />
        <xs:element name="IsReadReceiptRequested"
          type="xs:boolean"
          minOccurs="0"
         />
        <xs:element name="IsDeliveryReceiptRequested"
          type="xs:boolean"
          minOccurs="0"
         />
```

```
                <xs:element name="From"
                  type="t:SingleRecipientType"
                  minOccurs="0"
                 />
                <xs:element name="ReferenceItemId"
                  type="t:ItemIdType"
                  minOccurs="0"
                 />
            </xs:sequence>
            <xs:attribute name="ObjectName"
              type="xs:string"
              use="prohibited"
             />
         </xs:restriction>
      </xs:complexContent>
   </xs:complexType>
```

The following table lists and describes the child elements of the **SmartResponseBaseType** complex type.

Element name	Type	Description
Subject	**xs:string** [XMLSCHEMA2]	Specifies the subject.
Body	**t:BodyType** ([MS-OXWSCDATA] section 2.2.4.17)	Specifies the body content of an item.
ToRecipients	**t:ArrayOfRecipientsType** ([MS-OXWSCDATA] section 2.2.4.9)	Specifies a collection of recipients of an email message. This property is required for sending a message.
CcRecipients	**t:ArrayOfRecipientsType**	Specifies a collection of carbon copy (Cc) recipients of an email message.
BccRecipients	**t:ArrayOfRecipientsType**	Specifies a collection of **blind carbon copy (Bcc) recipients** of an email message.
IsReadReceiptRequested	**xs:boolean** [XMLSCHEMA2]	Specifies whether a **read receipt** is requested.
IsDeliveryReceiptRequested	**xs:boolean**	Specifies whether a **delivery receipt** is requested.
From	**t:SingleRecipientType** ([MS-OXWSCDATA] section 2.2.4.60)	Specifies the addressee from whom a message was sent.
ReferenceItemId	**t:ItemIdType** (section 2.2.4.19)	Specifies the item identifier that is related to a response object.

The following table lists and describes the attributes of the **SmartResponseBaseType** complex type.

Attribute name	Type	Description
ObjectName	xs:string [XMLSCHEMA2]	Specifies the name of the reply object class as an English-language string.

2.2.4.22   t:SmartResponseType Complex Type

The **SmartResponseType** complex type specifies the base type for the **ReplyToItemType** complex type ([MS-OXWSCDATA] section 2.2.4.56), the **ReplyAllToItemType** complex type ([MS-OXWSCDATA] section 2.2.4.54), the **ForwardItemType** complex type ([MS-OXWSCDATA] section 2.2.4.33), and the **CancelCalendarItemType** complex type, as specified in [MS-OXWSMTGS] section 2.2.4.8. The **SmartResponseType** complex type extends the **SmartResponseBaseType** complex type, as specified in section 2.2.4.21.

```
<xs:complexType name="SmartResponseType">
  <xs:complexContent>
    <xs:extension
      base="t:SmartResponseBaseType"
    >
      <xs:sequence>
        <xs:element name="NewBodyContent"
          type="t:BodyType"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the child elements of the **SmartResponseType** complex type.

Element name	Type	Description
NewBodyContent	**t:BodyType** ([MS-OXWSCDATA] section 2.2.4.17)	Specifies the new body content of a message response object.

2.2.4.23   t:ArrayOfAddressesType Complex Type

The **ArrayOfAddressesType** complex type specifies an array of addresses.<56>

```
<xs:complexType name="ArrayOfAddressesType">
  <xs:sequence>
    <xs:element name="Address" type="xs:string" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

Address: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents a single address.

2.2.4.24   t:ArrayOfMeetingSuggestionsType Complex Type

The **ArrayOfMeetingSuggestionsType** complex type specifies an array of meeting suggestions.<57>

```
<xs:complexType name="ArrayOfMeetingSuggestionsType">
   <xs:sequence>
      <xs:element name="MeetingSuggestion" type="t:MeetingSuggestionType"
maxOccurs="unbounded" />
   </xs:sequence>
</xs:complexType>
```

MeetingSuggestion: An element of type **MeetingSuggestionType**, as defined in section 2.2.4.25, that represents a single meeting suggestion.

2.2.4.25   t:MeetingSuggestionType Complex Type

The **MeetingSuggestionType** complex type specifies a meeting suggestion.<58>

```
<xs:complexType name="MeetingSuggestionType">
   <xs:sequence>
      <xs:element name="Attendees" type="t:ArrayOfEmailUsersType" minOccurs="0" maxOccurs="1"
/>
      <xs:element name="Location" type="xs:string" minOccurs="0" />
      <xs:element name="Subject" type="xs:string" minOccurs="0" />
      <xs:element name="MeetingString" type="xs:string" minOccurs="0" />
      <xs:element name="StartTime" type="xs:dateTime" minOccurs="0" />
      <xs:element name="EndTime" type="xs:dateTime" minOccurs="0" />
   </xs:sequence>
</xs:complexType>
```

Attendees: An element of type **ArrayOfEmailUsersType**, as defined in section 2.2.4.32, that represents those invited to the meeting.

Location: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents the location of the meeting.

Subject: An element of type **string** that represents the subject of the meeting.

MeetingString: An element of type **string** that represents the name of the meeting.

StartTime: An element of type **dateTime**, as defined in [XMLSCHEMA2] section 3.2.7, that represents the start time of the meeting.

EndTime: An element of type **dateTime** that represents the ending time of the meeting.

2.2.4.26   t:ArrayOfTaskSuggestionsType Complex Type

The **ArrayOfTaskSuggestionsType** complex type specifies an array of task suggestions.<59>

```
<xs:complexType name="ArrayOfTaskSuggestionsType">
   <xs:sequence>
      <xs:element name="TaskSuggestion" type="t:TaskSuggestionType" maxOccurs="unbounded" />
   </xs:sequence>
```

```
            </xs:complexType>
```

TaskSuggestion: An element of type **TaskSuggestionType**, as defined in section 2.2.4.34, that represents a single task suggestion.

2.2.4.27   t:ArrayOfContactsType Complex Type

The **ArrayOfContactsType** complex type specifies an array of contacts.<60>

```
    <xs:complexType name="ArrayOfContactsType">
        <xs:sequence>
            <xs:element name="Contact" type="t:ContactType" minOccurs="0" maxOccurs="unbounded"/>
        </xs:sequence>
    </xs:complexType>
```

Contact: An element of type **ContactType**, as defined in section 2.2.4.28, that represents a single contact.

2.2.4.28   t:ContactType Complex Type

The **ContactType** complex type specifies the type of a contact.<61>

```
    <xs:complexType name="ContactType">
        <xs:sequence>
            <xs:element name="PersonName" type="xs:string" minOccurs="0" />
            <xs:element name="BusinessName" type="xs:string" minOccurs="0" />
            <xs:element name="PhoneNumbers" type="t:ArrayOfPhonesType" minOccurs="0" maxOccurs="1"
 />
            <xs:element name="Urls" type="t:ArrayOfUrlsType" minOccurs="0" maxOccurs="1" />
            <xs:element name="EmailAddresses" type="t:ArrayOfExtractedEmailAddresses" minOccurs="0"
 maxOccurs="1" />
            <xs:element name="Addresses" type="t:ArrayOfAddressesType" minOccurs="0" maxOccurs="1"
 />
            <xs:element name="ContactString" type="xs:string" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
```

PersonName: An element of type **string**, as defined in [XMLSCHEMA2] 3.2.1, that represents the name of a person.

BusinessName: An element of type **string** that represents the name of a business.

PhoneNumbers: An element of type **ArrayOfPhonesType**, as defined in section 2.2.4.30, that represents phone number contacts.

Urls: An element of type **ArrayOfUrlsType**, as defined in section 2.2.4.29, that represents URL contacts.

EmailAddresses: An element of type **ArrayOfExtractedEmailAddresses**, as defined in section 2.2.4.35, that represents email contacts.

Addresses: An element of type **ArrayOfAddressesType**, as defined in section 2.2.4.23, that represents postal addresses of contacts.

ContactString: An element of type **string** that represents the display name of a contact.

2.2.4.29   t:ArrayOfUrlsType Complex Type

The **ArrayOfUrlsType** complex type specifies an array of URLs.<62>

```
<xs:complexType name="ArrayOfUrlsType">
   <xs:sequence>
     <xs:element name="Url" type="xs:string" minOccurs="0" maxOccurs="unbounded"/>
   </xs:sequence>
</xs:complexType>
```

Url: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that specifies a single URL.

2.2.4.30   t:ArrayOfPhonesType Complex Type

The **ArrayOfPhonesType** complex type specifies an array of phone numbers.<63>

```
<xs:complexType name="ArrayOfPhonesType">
   <xs:sequence>
     <xs:element name="Phone" type="t:PhoneType" minOccurs="0" maxOccurs="unbounded" />
   </xs:sequence>
</xs:complexType>
```

Phone: An element of type **PhoneType**, as defined in section 2.2.4.31, that represents a single phone number.

2.2.4.31   t:PhoneType Complex Type

The **PhoneType** complex type specifies a phone number and its type.<64>

```
<xs:complexType name="PhoneType">
   <xs:sequence>
     <xs:element name="OriginalPhoneString" type="xs:string" minOccurs="0" />
     <xs:element name="PhoneString" type="xs:string" minOccurs="0" />
     <xs:element name="Type" type="xs:string" minOccurs="0" />
   </xs:sequence>
</xs:complexType>
```

OriginalPhoneString: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents the original phone number.

PhoneString: An element of type **string** that represents the current phone number.

Type: An element of type **string** that represents the type of phone, for example, "Business" or "Home".

2.2.4.32   t:ArrayOfEmailUsersType Complex Type

The **ArrayOfEmailUsersType** complex type specifies an array of email users.<65>

```
<xs:complexType name="ArrayOfEmailUsersType">
   <xs:sequence>
     <xs:element name="EmailUser" type="t:EmailUserType" minOccurs="0" maxOccurs="unbounded"
/>
```

```
        </xs:sequence>
      </xs:complexType>
```

EmailUser: An element of type **EmailUserType**, as defined in section 2.2.4.33, that represents a single email user.

2.2.4.33   t:EmailUserType Complex Type

The **EmailUserType** complex type specifies an email user.<66>

```
  <xs:complexType name="EmailUserType">
      <xs:sequence>
        <xs:element name="Name" type="xs:string" minOccurs="0" />
        <xs:element name="UserId" type="xs:string" minOccurs="0" />
      </xs:sequence>
    </xs:complexType>
```

Name: A element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents the name of the email user.

UserId: An element of type **string** that represents the user identifier of the email user.

2.2.4.34   t:TaskSuggestionType Complex Type

The **TaskSuggestionType** complex type specifies a task suggestion.<67>

```
  <xs:complexType name="TaskSuggestionType">
      <xs:sequence>
        <xs:element name="TaskString" type="xs:string" minOccurs="0" />
        <xs:element name="Assignees" type="t:ArrayOfEmailUsersType" minOccurs="0" maxOccurs="1"
  />
      </xs:sequence>
    </xs:complexType>
```

TaskString: A element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents the name of the task.

Assignees: An element of type **ArrayOfEmailUsersType**, as defined in section 2.2.4.31, that represents the persons that are to accomplish the task.

2.2.4.35   t:ArrayOfExtractedEmailAddresses Complex Type

The **ArrayOfExtractedEmailAddresses** complex type specifies an array of email addresses.<68>

```
  <xs:complexType name="ArrayOfExtractedEmailAddresses">
      <xs:sequence>
        <xs:element name="EmailAddress" type="xs:string" minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
    </xs:complexType>
```

EmailAddress: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents a single email address.

2.2.4.36 t:EntityExtractionResultType Complex Type

The **EntityExtractionResultType** complex type specifies the result of an entity extraction.<69>

```
<xs:complexType name="EntityExtractionResultType">
    <xs:sequence>
      <xs:element name="Addresses" type="t:ArrayOfAddressesType" minOccurs="0" maxOccurs="1"
/>
      <xs:element name="MeetingSuggestions" type="t:ArrayOfMeetingSuggestionsType"
minOccurs="0" maxOccurs="1" />
      <xs:element name="TaskSuggestions" type="t:ArrayOfTaskSuggestionsType" minOccurs="0"
maxOccurs="1" />
      <xs:element name="EmailAddresses" type="t:ArrayOfExtractedEmailAddresses" minOccurs="0"
maxOccurs="1" />
      <xs:element name="Contacts" type="t:ArrayOfContactsType" minOccurs="0" maxOccurs="1" />
      <xs:element name="Urls" type="t:ArrayOfUrlsType" minOccurs="0" maxOccurs="1" />
      <xs:element name="PhoneNumbers" type="t:ArrayOfPhonesType" minOccurs="0" maxOccurs="1"
/>
    </xs:sequence>
  </xs:complexType>
```

Addresses: An element of type **ArrayOfAddressesType**, as defined in section 2.2.4.23, that represents the addresses returned.

MeetingSuggestions: An element of type **ArrayOfMeetingSuggestionsType**, as defined in section 2.2.4.24, that represents the meeting suggestions returned.

TaskSuggestions: An element of type **ArrayOfTaskSuggestionsType**, as defined in section 2.2.4.26, that represents the task suggestions returned.

EmailAddresses: An element of type **ArrayOfExtractedEmailAddresses**, as defined in section 2.2.4.35, that represents the email addresses returned.

Contacts: An element of type **ArrayOfContactsType**, as defined in section 2.2.4.27, that represents the contacts returned.

Urls: An element of type **ArrayOfUrlsType**, as defined in section 2.2.4.29, that represents the URLs returned.

PhoneNumbers: An element of type **ArrayOfPhonesType**, as defined in section 2.2.4.30, that represents the phone numbers returned.

2.2.4.37 t:RightsManagementLicenseDataType Complex Type

The **RightsManagementLicenseDataType** complex type specifies information about the rights management license.<70>

```
<xs:complexType name="RightsManagementLicenseDataType">
    <xs:sequence>
      <xs:element name="RightsManagedMessageDecryptionStatus" type="xs:int" minOccurs="0" />
      <xs:element name="RmsTemplateId" type="xs:string" minOccurs="0" />
      <xs:element name="TemplateName" type="xs:string" minOccurs="0" />
      <xs:element name="TemplateDescription" type="xs:string" minOccurs="0" />
      <xs:element name="EditAllowed" type="xs:boolean" minOccurs="0" />
      <xs:element name="ReplyAllowed" type="xs:boolean" minOccurs="0" />
      <xs:element name="ReplyAllAllowed" type="xs:boolean" minOccurs="0" />
      <xs:element name="ForwardAllowed" type="xs:boolean" minOccurs="0" />
```

```
                <xs:element name="ModifyRecipientsAllowed" type="xs:boolean" minOccurs="0" />
                <xs:element name="ExtractAllowed" type="xs:boolean" minOccurs="0" />
                <xs:element name="PrintAllowed" type="xs:boolean" minOccurs="0" />
                <xs:element name="ExportAllowed" type="xs:boolean" minOccurs="0" />
                <xs:element name="ProgrammaticAccessAllowed" type="xs:boolean" minOccurs="0" />
                <xs:element name="IsOwner" type="xs:boolean" minOccurs="0" />
                <xs:element name="ContentOwner" type="xs:string" minOccurs="0" />
                <xs:element name="ContentExpiryDate" type="xs:string" minOccurs="0" />
            </xs:sequence>
        </xs:complexType>
```

RightsManagedMessageDecryptionStatus: An element of type **int**, as defined in [XMLSCHEMA2], that specifies the decryption status of the message.

RmsTemplateId: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that specifies the identifier of the Rights Management template.

TemplateName: An element of type **string** that specifies the name of the Rights Management template.

TemplateDescription: An element of type **string** that specifies the description of the Rights Management template.

EditAllowed: An element of type **boolean**, as defined in [XMLSCHEMA2] section 3.2.2, that indicates whether the information is editable.

ReplyAllowed: An element of type **boolean** that indicates whether replying is enabled.

ReplyAllAllowed: An element of type **boolean** that indicates whether replying to all recipients is enabled.

ForwardAllowed: An element of type **boolean** that indicates whether forwarding is enabled.

ModifyRecipientsAllowed: An element of type **boolean** that indicates whether modifying the list of recipients is enabled.

ExtractAllowed: An element of type **boolean** that indicates whether extracting is enabled.

PrintAllowed: An element of type **boolean** that indicates whether printing is enabled.

ExportAllowed: An element of type **boolean** that indicates whether exporting is enabled.

ProgrammaticAccessAllowed: An element of type **boolean** that indicates whether programmatic access is enabled.

IsOwner: An element of type **boolean** that indicates whether a user is the owner.

ContentOwner: An element of type **string** that represents the name of the content owner.

ContentExpiryDate: An element of type **string** represents the expiration date of the content.

2.2.4.38   t:EntityType Complex Type

The **EntityType** complex type represents a single entity. Entities are text found in certain parts of a message, such as the subject or the body.<71>

```
    <xs:complexType name="EntityType">
```

```
  <xs:sequence>
    <xs:element name="Position" type="t:EmailPositionType"
        minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

Position: An element of type **EmailPositionType**, as defined in section 2.2.5.2, that specifies where the entity was found in the message.

2.2.4.39   t:ArrayOfAddressEntitiesType Complex Type

The **ArrayOfAddressEntitiesType** complex type represents an array of address entities.<72>

```
<xs:complexType name="ArrayOfAddressEntitiesType">
  <xs:sequence>
   <xs:element name="AddressEntity" type="t:AddressEntityType"
        minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

AddressEntity: An element of type **AddressEntityType**, as defined in section 2.2.4.40, that specifies an address.

2.2.4.40   t:AddressEntityType Complex Type

The **AddressEntityType** complex type specifies a street address. This type extends the **EntityType** complex type, as specified by section 2.2.4.38.<73>

```
xs:complexType name="AddressEntityType">
  <xs:complexContent>
    <xs:extension base="t:EntityType">
      <xs:sequence>
        <xs:element name="Address" type="xs:string" minOccurs="0"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>.
```

Address: An element of type **string** , as defined in [XMLSCHEMA2] section 3.2.1, that represents a street address.

2.2.4.41   t:ArrayOfEmailAddressEntitiesType Complex Type

The **ArrayOfEmailAddressEntitiesType** complex type specifies an array of email addresses.<74>

```
xs:complexType name="ArrayOfEmailAddressEntitiesType">
  <xs:sequence>
    <xs:element name="EmailAddressEntity" type="t:EmailAddressEntityType"
        minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
/xs:complexType>
```

EmailAddressEntity: An element of type **EmailAddressEntityType**, as defined in section 2.2.4.42, that represents an email address.

2.2.4.42   t:EmailAddressEntityType Complex Type

The **EmailAddressEntityType** complex type specifies an email address. This type extends the **EntityType** complex type, as specified in section 2.2.4.38.<75>

```
<xs:complexType name="EmailAddressEntityType">
   <xs:complexContent>
     <xs:extension base="t:EntityType">
       <xs:sequence>
         <xs:element name="EmailAddress" type="xs:string" minOccurs="0"/>
       </xs:sequence>
     </xs:extension>
   </xs:complexContent>
</xs:complexType>
```

EmailAddress: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that specifies an email address.

2.2.4.43   t:ArrayOfPhoneEntitiesType Complex Type

The **ArrayOfPhoneEntitiesType** complex type specifies an array of phone entities.<76>

```
<xs:complexType name="ArrayOfPhoneEntitiesType">
  <xs:sequence>
    <xs:element name="Phone" type="t:PhoneEntityType" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

Phone: An element of type **PhoneEntityType**, as defined in section 2.2.4.44, that specifies a phone entity.

2.2.4.44   t;PhoneEntityType Complex Type

The **PhoneEntityType** complex type specifies a phone entity. This type extends the **EntityType** complex type, as specified in section 2.2.4.38.<77>

```
<xs:complexType name="PhoneEntityType">
   <xs:complexContent>
   <xs:extension base="t:EntityType">
       <xs:sequence>
         <xs:element name="OriginalPhoneString type="xs:string" minOccurs="0"/>
         <xs:element name="PhoneString" type="xs:string" minOccurs="0"/>
         <xs:element name="Type" type="xs:string" minOccurs="0"/>
       </xs:sequence>
     </xs:extension>
   </xs:complexContent>
</xs:complexType>
```

OriginalPhoneString: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that represents the original phone number.

PhoneString: An element of type **string** that represents the current phone number.

Type: An element of type **string** that represents the type of phone number, for example, "Business" or "Home".

2.2.4.45   t:ArrayOfUrlEntitiesType Complex Type

The **ArrayOfUrlEntitiesType** complex type specifies an array of URL entities.<78>

```
<xs:complexType name="ArrayOfUrlEntitiesType">
  <xs:sequence>
    <xs:element name="UrlEntity" type="t:UrlEntityType" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

UrlEntity: An element of type **UrlEntityType**, as defined in section 2.2.4.46, that specifies a URL entity.

2.2.4.46   t:UrlEntityType Complex Type

The **UrlEntityType** complex type specifies a URL entity. This type extends the **EntityType** complex type, as specified in section 2.2.4.38.<79>

```
<xs:complexType name="UrlEntityType">
  <xs:complexContent>
    <xs:extension base="t:EntityType">
      <xs:sequence>
        <xs:element name="Url" type="xs:string" minOccurs="0"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

URL: An element of type **string**, as defined in [XMLSCHEMA2] section 3.2.1, that specifies a URL.

2.2.5   Simple Types

The following table lists the set of common XML schema simple type definitions that are defined by this specification. XML schema simple type definitions that are specific to a particular operation are defined with the operation.

Simple type	Description
DerivedItemIdType	Specifies the identifier of the recurring master of a recurring item.
EmailPositionType	Specifies a position in an email item.
ImportanceChoicesType	Specifies the levels of importance for an item.
ItemClassType	Specifies an item class.
ReminderMinutesBeforeStartType	Specifies the number of minutes before an event occurs when a reminder is displayed.

2.2.5.1   t:DerivedItemIdType Simple Type

The **DerivedItemIdType** simple type specifies the identifier of the recurring master of a recurring item.

```
<xs:simpleType name="DerivedItemIdType">
  <xs:restriction
    base="xs:string"
   />
</xs:simpleType>
```

2.2.5.2   t:EmailPositionType Simple Type

The **EmailPositionType** simple type specifies where an entity was found in a message.

```
xs:simpleType name="EmailPositionType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="LatestReply"/>
    <xs:enumeration value="Other"/>
    <xs:enumeration value="Subject"/>
    <xs:enumeration value="Signature"/>
  </xs:restriction>
</xs:simpleType>
```

The following table lists and describes the values defined by the **EmailPositionType** simple type.

Value	Meaning
LatestReply	Specifies the latest reply.
Other	Specifies an unlisted position.
Subject	Specifies the subject of the email.
Signature	Specifies the signature of the email.

2.2.5.3   t:ImportanceChoicesType Simple Type

The **ImportanceChoicesType** simple type specifies the levels of importance for an item.

```
<xs:simpleType name="ImportanceChoicesType">
  <xs:restriction
    base="xs:string"
  >
    <xs:enumeration
      value="High"
     />
    <xs:enumeration
      value="Low"
     />
    <xs:enumeration
      value="Normal"
     />
  </xs:restriction>
```

```
    </xs:simpleType>
```

The following table lists the values that are defined by the **ImportanceChoicesType** simple type.

Value	Meaning
High	Specifies high importance.
Low	Specifies low importance.
Normal	Specifies normal importance.

2.2.5.4   t:ItemClassType Simple Type

The **ItemClassType** simple type specifies an item class.

```
<xs:simpleType name="ItemClassType">
  <xs:restriction
    base="xs:string"
   />
</xs:simpleType>
```

2.2.5.5   t:ReminderMinutesBeforeStartType Simple Type

The **ReminderMinutesBeforeStartType** simple type specifies the number of minutes before an
event occurs when a reminder is displayed.

```
<xs:simpleType name="ReminderMinutesBeforeStartType">
  <xs:union>
    <xs:simpleType
      id="ReminderMinutesBeforeStartType"
    >
      <xs:restriction
        base="xs:int"
      >
        <xs:minInclusive
          value="0"
         />
        <xs:maxInclusive
          value="2629800"
         />
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType
      id="ReminderMinutesBeforeStartMarkerType"
    >
      <xs:restriction
        base="xs:int"
      >
        <xs:minInclusive
          value="1525252321"
         />
        <xs:maxInclusive
```

```
           value="1525252321"
         />
      </xs:restriction>
    </xs:simpleType>
  </xs:union>
</xs:simpleType>
```

2.2.6 Attributes

This specification does not define any common XML schema attribute definitions.

2.2.7 Groups

This specification does not define any common XML schema group definitions.

2.2.8 Attribute Groups

This specification does not define any common XML schema attribute group definitions.

3   Protocol Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results that are returned by the transport are passed directly back to the higher-layer protocol or application.

3.1   ExchangeServicePortType Server Details

The Core Items Web Service Protocol defines a single port type with six operations. Those operations enable client implementations to update, delete, move, or copy items on the server.

3.1.1   Abstract Data Model

None.

3.1.2   Timers

None.

3.1.3   Initialization

None.

3.1.4   Message Processing Events and Sequencing Rules

The following table summarizes the **WSDL operations** as defined by this specification.

Operation name	Description
GetItem	Gets items on the server.
CreateItem	Creates items on the server.
DeleteItem	Deletes items on the server.
UpdateItem	Updates items on the server.
MoveItem	Moves items on the server.
CopyItem	Copies items on the server.
MarkAllItemsAsRead	Marks all the items in a folder as read.
MarkAsJunk	Marks an item as junk.<80>
SendItem	Sends messages and post items on the server

3.1.4.1   CopyItem Operation

The **CopyItem** operation copies items on the server.

The following is the WSDL port type specification for the **CopyItem** operation.

```
<wsdl:operation name="CopyItem" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    <wsdl:input message="tns:CopyItemSoapIn" />
```

```
         <wsdl:output message="tns:CopyItemSoapOut" />
    </wsdl:operation>
```

The following is the WSDL binding specification for the **CopyItem** operation.

```
<wsdl:operation name="CopyItem">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/CopyItem"/>
   <wsdl:input>
      <soap:header message="tns:CopyItemSoapIn" part="Impersonation" use="literal"/>
      <soap:header message="tns:CopyItemSoapIn" part="MailboxCulture" use="literal"/>
      <soap:header message="tns:CopyItemSoapIn" part="RequestVersion" use="literal"/>
      <soap:body parts="request" use="literal"/>
   </wsdl:input>
   <wsdl:output>
      <soap:body parts="CopyItemResult" use="literal"/>
      <soap:header message="tns:CopyItemSoapOut" part="ServerVersion" use="literal"/>
   </wsdl:output>
</wsdl:operation>
```

3.1.4.1.1   Messages

The following table lists the WSDL message definitions that are specific to the **CopyItem** operation.

Message name	Description
CopyItemSoapIn	Specifies the **SOAP message** that requests to copy an item in a mailbox.
CopyItemSoapOut	Specifies the SOAP message that is returned by the server in response.

3.1.4.1.1.1   tns:CopyItemSoapIn Message

The **CopyItemSoapIn** WSDL message specifies the **CopyItem** operation request to copy an item on the server.

```
<wsdl:message name="CopyItemSoapIn">
   <wsdl:part name="request" element="tns:CopyItem"/>
   <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
   <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
   <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>--
```

The **CopyItemSoapIn** WSDL message is the input message for the **SOAP action**
http://schemas.microsoft.com/exchange/services/2006/messages/CopyItem.

The parts of the **CopyItemSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	**tns:CopyItem** (section 3.1.4.1.2.1)	Specifies the **SOAP body** of a request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a **SOAP header** that identifies the user whom the client application is

Part name	Element/type	Description
		impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.5.6)	Specifies a SOAP header that identifies the culture to be used for accessing the mailbox. The cultures are defined in [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for a **CopyItem** operation request.

3.1.4.1.1.2   tns:CopyItemSoapOut Message

The **CopyItemSoapOut** WSDL message specifies the server response to the **CopyItem** operation request to copy an item on the server.

```
<wsdl:message name="CopyItemSoapOut">
   <wsdl:part name="CopyItemResult" element="tns:CopyItemResponse"/>
   <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **CopyItemSoapOut** WSDL message is the output message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/CopyItem.

The parts of the **CopyItemSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
CopyItemResult	**tns:CopyItemResponse** (section 3.1.4.1.2.2)	Specifies the SOAP body of a response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for a response.

3.1.4.1.2   Elements

The following table lists the XML schema element definitions that are specific to the **CopyItem** operation.

Element name	Description
CopyItem	Specifies a request to copy an item in a mailbox.
CopyItemResponse	Specifies a response to a **CopyItem** operation request.

3.1.4.1.2.1   m:CopyItem Element

The **CopyItem** element specifies a request to copy an item in a mailbox.

```
<xs:element name="CopyItem"
  type="m:CopyItemType"
 />
```

3.1.4.1.2.2   m:CopyItemResponse Element

The **CopyItemResponse** element specifies a response to a **CopyItem** operation request.

```
<xs:element name="CopyItemResponse"
  type="m:CopyItemResponseType"
 />
```

3.1.4.1.3   Complex Types

The following table lists the XML schema complex type definitions that are specific to the **CopyItem** operation.

Complex type name	Description
CopyItemResponseType	Specifies the response that is returned by the **CopyItem** operation.
CopyItemType	Specifies an operation to copy items in a mailbox.

3.1.4.1.3.1   m:CopyItemResponseType Complex Type

The **CopyItemResponseType** complex type specifies the response that is returned by the **CopyItem** operation. The **CopyItemResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
<xs:complexType name="CopyItemResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.1.3.2   m:CopyItemType Complex Type

The **CopyItemType** complex type specifies an operation to copy items in a mailbox. The **CopyItemType** complex type extends the **BaseMoveCopyItemType** complex type, as specified in section 2.2.4.3.

```
<xs:complexType name="CopyItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseMoveCopyItemType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.2   CreateItem Operation

The **CreateItem** operation creates items on the server.

The following is the WSDL port type specification for the **CreateItem** operation.

```
<wsdl:operation name="CreateItem" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    <wsdl:input message="tns:CreateItemSoapIn" />
    <wsdl:output message="tns:CreateItemSoapOut" />
</wsdl:operation>
```

The following is the WSDL binding specification for the **CreateItem** operation.

```
<wsdl:operation name="CreateItem">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/CreateItem"/>
   <wsdl:input>
      <soap:header message="tns:CreateItemSoapIn" part="Impersonation" use="literal"/>
      <soap:header message="tns:CreateItemSoapIn" part="MailboxCulture" use="literal"/>
      <soap:header message="tns:CreateItemSoapIn" part="RequestVersion" use="literal"/>
      <soap:header message="tns:CreateItemSoapIn" part="TimeZoneContext" use="literal"/>
      <soap:body parts="request" use="literal"/>
   </wsdl:input>
   <wsdl:output>
      <soap:body parts="CreateItemResult" use="literal"/>
      <soap:header message="tns:CreateItemSoapOut" part="ServerVersion" use="literal"/>
   </wsdl:output>
</wsdl:operation>
```

3.1.4.2.1   Messages

The following table lists the WSDL message definitions that are specific to the **CreateItem** operation.

Message name	Description
CreateItemSoapIn	Specifies the SOAP message that requests to create an item.
CreateItemSoapOut	Specifies the SOAP message that is returned by the server in response to a **CreateItemSoapIn** operation request.

3.1.4.2.1.1   tns:CreateItemSoapIn Message

The **CreateItemSoapIn** WSDL message specifies the **CreateItem** operation request to create items on the server.

```
<wsdl:message name="CreateItemSoapIn">
   <wsdl:part name="request" element="tns:CreateItem"/>
   <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
   <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
   <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
   <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
</wsdl:message>
```

The **CreateItemSoapIn** WSDL message is the input message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/CreateItem.

The parts of the **CreateItemSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	**tns:CreateItem** (section 3.1.4.2.3.2)	Specifies the SOAP body of a request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.5.6)	Specifies a SOAP header that identifies the culture to be used for accessing a mailbox. The cultures are defined in [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for a **CreateItem** operation (section 3.1.4.2) request.
TimeZoneContext	**t:TimeZoneContext** ([MS-OXWSGTZ] section 2.2.4.11)	Specifies a SOAP header that identifies the time zone to be used for all responses from the server. All times that are returned from the server will be converted to the specified time zone.

3.1.4.2.1.2   tns:CreateItemSoapOut Message

The **CreateItemSoapOut** WSDL message specifies the server response to a **CreateItem** operation request to create items on the server.

```
<wsdl:message name="CreateItemSoapOut">
   <wsdl:part name="CreateItemResult" element="tns:CreateItemResponse"/>
   <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **CreateItemSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/CreateItem.

The parts of the **CreateItemSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
CreateItemResult	**tns:CreateItemResponse** (section 3.1.4.2.2.2)	Specifies the SOAP body of a response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response to a **CreateItem** operation request.

3.1.4.2.2 Elements

The following table lists the XML schema element definitions that are specific to the **CreateItem** operation.

Element name	Description
CreateItem	Specifies a request to create an item.
CreateItemResponse	Specifies a response to a **CreateItem** operation request.

3.1.4.2.2.1 m:CreateItem Element

The **CreateItem** element specifies a request to create an item.

```
<xs:element name="CreateItem"
  type="m:CreateItemType"
 />
```

3.1.4.2.2.2 m:CreateItemResponse Element

The **CreateItemResponse** element specifies a response to a **CreateItem** operation request.

```
<xs:element name="CreateItemResponse"
  type="m:CreateItemResponseType"
 />
```

3.1.4.2.3 Complex Types

The following table lists the XML schema complex type definitions that are specific to the **CreateItem** operation.

Complex type name	Description
CreateItemResponseType	Specifies a response to a **CreateItemCreateItem** operation request.
CreateItemType	Specifies a request to create an item or response object.

3.1.4.2.3.1 m:CreateItemResponseType Complex Type

The **CreateItemResponseType** complex type specifies a response to a **CreateItem** operation request. The **CreateItemResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
<xs:complexType name="CreateItemResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.2.3.2   m:CreateItemType Complex Type

The **CreateItemType** complex type specifies a request to create an item or response object. The **CreateItemTYpe** complex type extends the **BaseRequestType** complex type ([MS-OXWSCDATA] section 2.2.4.15).

```
<xs:complexType name="CreateItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="SavedItemFolderId"
          type="t:TargetFolderIdType"
          minOccurs="0"
         />
        <xs:element name="Items"
          type="t:NonEmptyArrayOfAllItemsType"
         />
      </xs:sequence>
      <xs:attribute name="MessageDisposition"
        type="t:MessageDispositionType"
        use="optional"
       />
      <xs:attribute name="SendMeetingInvitations"
        type="t:CalendarItemCreateOrDeleteOperationType"
        use="optional"
       />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the child elements of the **CreateItemType** complex type.

Element name	Type	Description
SavedItemFolderId	**t:TargetFolderIdType** ([MS-OXWSFOLD] section 2.2.4.14)	Specifies the folder in which new items are saved.
Items	**t:NonEmptyArrayOfAllItemsType** ([MS-OXWSCDATA] section 2.2.4.42)	Specifies the collection of items to be created.

The following table lists and describes the attributes of the **CreateItemType** complex type.

Attribute name	Type	Description
MessageDisposition	**t:MessageDispositionType** ([MS-OXWSMSG] section 2.2.5.1)	Specifies an enumeration that describes how an item is handled after it is created.

Attribute name	Type	Description
SendMeetingInvitations	**t:CalendarItemCreateOrDeleteOperationType** ([MS-OXWSMTGS] section 2.2.5.1)	Specifies an enumeration that describes how meeting requests are handled after they are created.

3.1.4.3 DeleteItem Operation

The **DeleteItem** operation deletes items on the server.

The following is the WSDL port type specification for the **DeleteItem** operation.

```
<wsdl:operation name="DeleteItem">
   <wsdl:input message="tns:DeleteItemSoapIn"/>
   <wsdl:output message="tns:DeleteItemSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification for the **DeleteItem** operation.

```
<wsdl:operation name="DeleteItem">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DeleteItem"/>
   <wsdl:input>
      <soap:header message="tns:DeleteItemSoapIn" part="Impersonation" use="literal"/>
      <soap:header message="tns:DeleteItemSoapIn" part="MailboxCulture" use="literal"/>
      <soap:header message="tns:DeleteItemSoapIn" part="RequestVersion" use="literal"/>
      <soap:body parts="request" use="literal"/>
   </wsdl:input>
   <wsdl:output>
      <soap:body parts="DeleteItemResult" use="literal"/>
      <soap:header message="tns:DeleteItemSoapOut" part="ServerVersion" use="literal"/>
   </wsdl:output>
</wsdl:operation>
```

3.1.4.3.1 Messages

The following table lists the WSDL message definitions that are specific to the **DeleteItem** operation.

Message name	Description
DeleteItemSoapIn	Specifies the SOAP message that requests an item be deleted from a mailbox.
DeleteItemSoapOut	Specifies the SOAP message that is returned by the server in response to a **DeleteItemSoapIn** operation request.

3.1.4.3.1.1 tns:DeleteItemSoapIn Message

The **DeleteItemSoapIn** WSDL message specifies the **DeleteItem** operation request to delete an item on the server.

```
<wsdl:message name="DeleteItemSoapIn">
   <wsdl:part name="request" element="tns:DeleteItem"/>
   <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
   <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
   <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **DeleteItemSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/DeleteItem.

The parts of the **DeleteItemSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	**tns:DeleteItem** (section 3.1.4.3.2.1)	Specifies the SOAP body of a request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.5.6)	Specifies a SOAP header that identifies the culture to be used for accessing a mailbox. The cultures are defined in [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for a **DeleteItem** operation request.

3.1.4.3.1.2   tns:DeleteItemSoapOut Message

The **DeleteItemSoapOut** WSDL message specifies the server response to the **DeleteItem** operation request to delete an item on the server.

```
<wsdl:message name="DeleteItemSoapOut">
   <wsdl:part name="DeleteItemResult" element="tns:DeleteItemResponse"/>
   <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **DeleteItemSoapOut** WSDL message is the output message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/DeleteItem.

The parts of the **DeleteItemSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
DeleteItemResult	**tns:DeleteItemResponse** (section 3.1.4.3.2.2)	Specifies the SOAP body of a response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for a response.

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3.1.4.3.2   Elements

The following table lists the XML schema element definitions that are specific to the **DeleteItem** operation.

Element name	Description
DeleteItem	Specifies a request to delete an item from a mailbox.
DeleteItemResponse	Specifies a response to a single **DeleteItem** operation request.

3.1.4.3.2.1   m:DeleteItem Element

The **DeleteItem** element specifies a request to delete an item from a mailbox.

```
<xs:element name="DeleteItem"
  type="m:DeleteItemType"
 />
```

3.1.4.3.2.2   m:DeleteItemResponse Element

The **DeleteItemResponse** element specifies a response to a single **DeleteItem** operation request.

```
<xs:element name="DeleteItemResponse"
  type="m:DeleteItemResponseType"
 />
```

3.1.4.3.3   Complex Types

The following table lists the XML schema complex type definitions that are specific to the **DeleteItem** operation.

Complex type name	Description
DeleteItemResponseType	Specifies a response to a single **DeleteItem** operation request.
DeleteItemType	Specifies a request to delete items.

3.1.4.3.3.1   m:DeleteItemResponseType Complex Type

The **DeleteItemResponseType** complex type specifies a response to a single **DeleteItem** operation request. The **DeleteItemResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
<xs:complexType name="DeleteItemResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
    />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.3.3.2   m:DeleteItemType Complex Type

The **DeleteItemType** complex type specifies a request to delete items. The **DeleteItemType** complex type extends the **BaseRequestType** complex type ([MS-OXWSCDATA] section 2.2.4.15).

```
<xs:complexType name="DeleteItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="ItemIds"
          type="t:NonEmptyArrayOfBaseItemIdsType"
         />
      </xs:sequence>
      <xs:attribute name="DeleteType"
        type="t:DisposalType"
        use="required"
       />
      <xs:attribute name="SendMeetingCancellations"
        type="t:CalendarItemCreateOrDeleteOperationType"
        use="optional"
       />
      <xs:attribute name="AffectedTaskOccurrences"
        type="t:AffectedTaskOccurrencesType"
        use="optional"
       />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the child elements of the **DeleteItemType** complex type.

Element name	Type	Description
ItemIds	**t:NonEmptyArrayOfBaseItemIdsType** (section 2.2.4.11)	Specifies the collection of items to be deleted.

The following table lists and describes the attributes of the **DeleteItemType** complex type.

Attribute name	Type	Description
DeleteType	**t:DisposalType** ([MS-OXWSCDATA] section 2.2.3.9)	Specifies an enumeration value that describes how an item is to be deleted.
SendMeetingCancellations	**t:CalendarItemCreateOrDeleteOperationType** ([MS-OXWSMTGS] section 2.2.5.1)	Specifies an enumeration that describes how

Attribute name	Type	Description
		cancellations are to be handled for deleted meetings.
AffectedTaskOccurrences	**t:AffectedTaskOccurrencesType** ([MS-OXWSTASK] section 3.1.4.3.1.1)	Specifies an enumeration value that indicates whether a task instance or a task master is to be deleted.

3.1.4.4 GetItem Operation

The **GetItem** operation gets items on the server.

The following is the WSDL port type specification for the **GetItem** operation.

```
<wsdl:operation name="GetItem">
   <wsdl:input message="tns:GetItemSoapIn"/>
   <wsdl:output message="tns:GetItemSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification for the **GetItem** operation.

```
<wsdl:operation name="GetItem">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetItem"/>
   <wsdl:input>
      <soap:header message="tns:GetItemSoapIn" part="Impersonation" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="MailboxCulture" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="RequestVersion" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="TimeZoneContext" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="DateTimePrecision" use="literal" />
      <soap:header message="tns:GetItemSoapIn" part="ManagementRole" use="literal" />
<soap:body parts="request" use="literal"/>
   </wsdl:input>
   <wsdl:output>
      <soap:body parts="GetItemResult" use="literal"/>
      <soap:header message="tns:GetItemSoapOut" part="ServerVersion" use="literal"/>
   </wsdl:output>
</wsdl:operation>
```

3.1.4.4.1 Messages

The following table lists the WSDL message definitions that are specific to the **GetItem** operation.

Message name	Description
GetItemSoapIn	Specifies the SOAP message that requests to get an item from a mailbox.
GetItemSoapOut	Specifies the SOAP message that is returned by the server in response to a **GetItem** operation request.

3.1.4.4.1.1   tns:GetItemSoapIn Message

The **GetItemSoapIn** WSDL message specifies the **GetItem** operation request to get an item from the server.

```
<wsdl:message name="GetItemSoapIn">
   <wsdl:part name="request" element="tns:GetItem"/>
   <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
   <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
   <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
   <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
   <wsdl:part name="DateTimePrecision" element="t:DateTimePrecision" />
   <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
</wsdl:message>
```

The **GetItemSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/GetItem.

The parts of the **GetItemSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	**tns:GetItem** (section 3.1.4.4.2.1)	Specifies the SOAP body of a request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.5.6)	Specifies a SOAP header that identifies the culture to be used for accessing a mailbox. The cultures are defined in [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for a **GetItem** operation request.
TimeZoneContext	**t:TimeZoneContex** ([MS-OXWSGTZ] section 2.2.4.11)	Specifies a SOAP header that identifies the time zone to be used for all responses from the server. All times that are returned from the server will be converted to the specified time zone.
DateTimePrecision	**t:DateTimePrecision** ([MS-OXWSCDATA] section 2.2.5.1)	Specifies a SOAP header that identifies the resolution of date/time values in responses from the server, either in seconds or in milliseconds. This header SHOULD<81> be included.
ManagementRole	**t:ManagementRole** (section 2.2.3.2)	Specifies the roles the user or application wants to use.<82>

3.1.4.4.1.2   tns:GetItemSoapOut Message

The **GetItemSoapOut** WSDL message specifies the server response to the **GetItem** operation request to get an item from the server.

```
<wsdl:message name="GetItemSoapOut">
```

```
      <wsdl:part name="GetItemResult" element="tns:GetItemResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
   </wsdl:message>
```

The **GetItemSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/GetItem.

The parts of the **GetItemSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
GetItemResult	**tns:GetItemResponse** (section 3.1.4.4.2.2)	Specifies the SOAP body of a response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for a response.

3.1.4.4.2 Elements

The following table lists the XML schema element definitions that are specific to the **GetItem** operation.

Element name	Description
GetItem	Specifies a request to get an item from a mailbox.
GetItemResponse	Specifies a response to a **GetItem** operation request.

3.1.4.4.2.1 m:GetItem Element

The **GetItem** element specifies a request to get an item from a mailbox.

```
<xs:element name="GetItem"
  type="m:GetItemType"
 />
```

3.1.4.4.2.2 m:GetItemResponse Element

The **GetItemResponse** element specifies a response to a **GetItem** operation request.

```
<xs:element name="GetItemResponse"
  type="m:GetItemResponseType"
 />
```

3.1.4.4.3 Complex Types

The following table lists the XML schema complex type definitions that are specific to the **GetItem** operation.

Complex type name	Description
GetItemResponseType	Specifies a response to a **GetItem** operation request.
GetItemType	Specifies a request to get items from a mailbox.

3.1.4.4.3.1   m:GetItemResponseType Complex Type

The **GetItemResponseType** complex type specifies a response to a **GetItem** operation request. The **GetItemResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
<xs:complexType name="GetItemResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
    />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.4.3.2   m:GetItemType Complex Type

The **GetItemType** complex type specifies a request to get items from a mailbox. The **GetItemType** complex type extends the **BaseRequestType** complex type ([MS-OXWSCDATA] section 2.2.4.15).

```
<xs:complexType name="GetItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="ItemShape"
          type="t:ItemResponseShapeType"
        />
        <xs:element name="ItemIds"
          type="t:NonEmptyArrayOfBaseItemIdsType"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the child elements of the **GetItemType** complex type.

Element name	Type	Description
ItemShape	**t:ItemResponseShapeType** ([MS-OXWSCDATA] section 2.2.4.38)	Specifies the response shape of a **GetItem** operation response.
ItemIds	**t:NonEmptyArrayOfBaseItemIdsType** (section	Specifies the collection of items that a **GetItem** operation is to

Element name	Type	Description
	2.2.4.11)	get.

3.1.4.5 MarkAllItemsAsRead Operation

The **MarkAllItemsAsRead** operation marks all items in a folder as read.<83>

The following is the WSDL port type specification for the **MarkAllItemsAsRead** operation.

```
<wsdl:operation name="MarkAllItemsAsRead">
  <wsdl:input message="tns:MarkAllItemsAsReadSoapIn"/>
  <wsdl:output message="tns:MarkAllItemsAsReadSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification for the **MarkAllItemsAsRead** operation.

```
<wsdl:operation name="MarkAllItemsAsRead">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/MarkAllItemsAsRead"/
>
  <wsdl:input>
    <soap:header message="tns:MarkAllItemsAsReadSoapIn" part="Impersonation" use="literal"/>
    <soap:header message="tns:MarkAllItemsAsReadSoapIn" part="MailboxCulture" use="literal"/>
    <soap:header message="tns:MarkAllItemsAsReadSoapIn" part="RequestVersion" use="literal"/>
    <soap:body parts="request" use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body parts="MarkAllItemsAsReadResult" use="literal"/>
    <soap:header message="tns:MarkAllItemsAsReadSoapOut" part="ServerVersion" use="literal"/>
  </wsdl:output>
</wsdl:operation>
```

3.1.4.5.1 Messages

The following table lists the WSDL message definitions that are specific to the **MarkAllItemsAsRead** operation.

Message name	Description
MarkAllItemsAsReadSoapIn	Specifies the SOAP message that requests to mark all items as read.
MarkAllItemsAsReadSoapOut	Specifies the SOAP message that is returned by the server in response to a **MarkAllItemsAsRead** operation request.

3.1.4.5.1.1 tns:MarkAllItemsAsReadSoapIn Message

The **MarkAllItemsAsReadSoapIn** WSDL message specifies the **MarkAllItemsAsRead** operation request to mark all items as read.

```
<wsdl:message name="MarkAllItemsAsReadSoapIn">
  <wsdl:part name="request" element="tns:MarkAllItemsAsRead"/>
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
```

```
      <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
   </wsdl:message>
```

The **MarkAllItemsAsReadSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/MarkAllItemsAsRead.

The parts of the **MarkAllItemsAsReadSoapIn** WSDL message are listed and described in the
following table.

Part name	Element/type	Description
request	**tns:MarkAllItemsAsREad** (section 3.1.4.5.2.1)	Specifies the SOAP body of a request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.5.6)	Specifies a SOAP header that identifies the culture to be used for accessing a mailbox. The cultures are defined in [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for a **MarkAllItemsAsRead** operation request.

3.1.4.5.1.2   tns:MarkAllItemsAsReadSoapOut Message

The **MarkAllItemsAsReadSoapOut** WSDL message specifies the server response to the
MarkAllItemsAsRead operation request to mark all items as read.

```
   <wsdl:message name="MarkAllItemsAsReadSoapOut">
      <wsdl:part name="MarkAllItemsAsReadResult" element="tns:MarkAllItemsAsReadResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
   </wsdl:message>
```

The **MarkAllItemsAsReadSoapOut** WSDL message is the output message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/MarkAllItemsAsRead.

The parts of the **MarkAllItemsAsReadSoapOut** WSDL message are listed and described in the
following table.

Part name	Element/type	Description
MarkAllItemsAsReadResult	**tns:MarkAllItemsAsReadResponse** (section 3.1.4.5.2.2)	Specifies the SOAP body of a response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response to a **MarkAllItemsAsRead** operation request.

3.1.4.5.2 Elements

The following table lists the XML schema element definitions that are specific to the **MarkAllItemsAsRead** operation.

Element name	Description
MarkAllItemsAsRead	Specifies a request to mark all items as read.
MarkAllItemsAsReadResponse	Specifies a response to a **MarkAllItemsAsRead** operation request.

3.1.4.5.2.1 m:MarkAllItemsAsRead Element

The **MarkAllItemsAsRead** element specifies a request to mark all items as read.

```
<xs:element name="MarkAllItemsAsRead" type="m:MarkAllItemsAsReadType"/>
```

3.1.4.5.2.2 m:MarkAllItemsAsReadResponse Element

The **MarkAllItemsAsReadResponse** element specifies a response to a **MarkAllItemsAsRead** operation request.

```
<xs:element name="MarkAllItemsAsReadResponse" type="m:MarkAllItemsAsReadResponseType"/>
```

3.1.4.5.3 Complex Types

The following table lists the XML schema complex type definitions that are specific to the **MarkAllItemsAsRead** operation.

Complex type name	Description
MarkAllItemsAsReadResponseType	Specifies a response to a call to the **MarkAllItemsAsRead** operation.
MarkAllItemsAsReadType	Specifies an operation to mark all items as read.

3.1.4.5.3.1 m:MarkAllItemsAsReadType Complex Type

The **MarkAllItemsAsReadType** complex type specifies a request to mark all items as read. The **MarkAllItemsAsReadType** complex type extends the **BaseRequestType** complex type ([MS-OXWSCDATA] section 2.2.4.15).

```
<xs:complexType name="MarkAllItemsAsReadType">
  <xs:complexContent>
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element name="ReadFlag" type="xs:boolean" minOccurs="1" maxOccurs="1"/>
        <xs:element name="SuppressReadReceipts" type="xs:boolean" minOccurs="1"
maxOccurs="1"/>
        <xs:element name="FolderIds" type="t:NonEmptyArrayOfBaseFolderIdsType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
```

```
    </xs:complexType>
```

3.1.4.5.3.2   m:MarkAllItemsAsReadResponseType Complex Type

The **MarkAllItemsAsReadResponseType** complex type specifies a response to a call to the **MarkAllItemsAsRead** operation. The **MarkAllItemsAsReadResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
    <xs:complexType name="MarkAllItemsAsReadResponseType">
      <xs:complexContent>
        <xs:extension base="m:BaseResponseMessageType"/>
      </xs:complexContent>
    </xs:complexType>
```

3.1.4.6   MarkAsJunk Operation

The **MarkAsJunk** operation marks an item as junk.<84>

The following is the WSDL port type specification of the **MarkAsJunk** operation.

```
    <wsdl:operation name="MarkAsJunk">
      <wsdl:input message="tns:MarkAsJunkSoapIn"/>
      <wsdl:output message="tns:MarkAsJunkSoapOut"/>
    </wsdl:operation>
```

The following is the WSDL binding specification of the **MarkAsJunk** operation

```
    <wsdl:operation name="MarkAsJunk">
      <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/MarkAsJunk"/>
      <wsdl:input>
        <soap:header message="tns:MarkAsJunkSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:MarkAsJunkSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:MarkAsJunkSoapIn" part="RequestVersion" use="literal"/>
        <soap:body parts="request" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="MarkAsJunkResult" use="literal"/>
        <soap:header message="tns:MarkAsJunkSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
```

3.1.4.6.1   Messages

The following table summarizes the WSDL message definitions that are specific to this operation.

Messages	Description
MarkAsJunkSoapIn	Specifies the request to mark an item as junk.
MarkAsJunkSoapOut	Specifies the response to the **MarkAsJunkSoapIn** message.

3.1.4.6.1.1 tns:MarkAsJunkSoapIn Message

The **MarkAsJunkSoapIn** WSDL message specifies the request to mark an item as junk.

The following is the **MarkAsJunkSoapIn** WSDL message specification.

```
<wsdl:message name="MarkAsJunkSoapIn">
  <wsdl:part name="request" element="tns:MarkAsJunk"/>
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
  <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **MarkAsJunkSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/MarkAsJunk.

The parts of the **MarkAsJunkSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	**tns:MarkAsJunk**	Specifies the SOAP body of the request to mark an item as junk.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.4.39)	Specifies a SOAP header that identifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for the request.

3.1.4.6.1.2 tns:MarkAsJunkSoapOut Message

The **MarkAsJunkSoapOut** WSDL message specifies the server response to a **MarkAsJunkSoapIn**
operation request to mark an item as junk.

```
<wsdl:message name="MarkAsJunkSoapOut">
  <wsdl:part name="MarkAsJunkResult" element="tns:MarkAsJunkResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **MarkAsJunkSoapOut** WSDL message is the output message for the following **SOAP** action:
http://schemas.microsoft.com/exchange/services/2006/messages/MarkAsJunk.

The **MarkAsJunkSoapOut** WSDL message contains two parts, as listed and described in the
following table.

Part name	Element/type	Description
MarkAsJunkResult	**tns:MarkAsJunkResponse** (section 3.1.4.6.2.2)	Specifies the SOAP body of the response to a **MarkAsJunk** operation request.

Part name	Element/type	Description
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response to a **MarkAsJunk** operation request.

3.1.4.6.2   Elements

The following table summarizes the XML schema element definitions that are specific to this operation.

Element	Description
MarkAsJunk	The input data for the **MarkAsJunk** WSDL operation.
MarkAsJunkResponse	The result data for the **MarkAsJunk** WSDL operation.

3.1.4.6.2.1   m:MarkAsJunk Element

The **MarkAsJunk** element specifies the base element for a **MarkAsJunk** operation, as specified in section 3.1.4.6.

```
<xs:element name="MarkAsJunk" type="m:MarkAsJunkType" />
```

3.1.4.6.2.2   m:MarkAsJunkResponse Element

The **MarkAsJunkResponse** element specifies the response for a **MarkAsJunk** operation, as specified in section 3.1.4.6.

```
<xs:element name="MarkAsJunkResponse" type="m:MarkAsJunkResponseType" />
```

3.1.4.6.3   Complex Types

The following table summarizes the XML schema complex type definitions that are specific to this operation.

Complex type	Description
MarkAsJunkType	Specifies a request to mark an item as junk.
MarkAsJunkResponseType	Specifies the response to a **MarkAsJunk** operation.
MarkAsJunkResponseMessageType	Specifies the response message to a **MarkAsJunk** operation.

3.1.4.6.3.1   m:MarkAsJunkType Complex Type

The **MarkAsJunkType** complex type specifies the request to mark items as junk. The **MarkAsJunkType** complex type extends the **BaseRequestType**, as specified in [MS-OXWSCDATA] section 2.2.4.15.

```
<xs:complexType name="MarkAsJunkType">
```

```
     <xs:complexContent mixed="false">
       <xs:extension base="m:BaseRequestType">
         <xs:sequence>
           <xs:element name="ItemIds" type="t:NonEmptyArrayOfBaseItemIdsType" minOccurs="1"
  maxOccurs="1"/>
         </xs:sequence>
         <xs:attribute name="IsJunk" type="xs:boolean" use="required" />
         <xs:attribute name="MoveItem" type="xs:boolean" use="required" />
       </xs:extension>
     </xs:complexContent>
   </xs:complexType>.
```

The following table lists the child element of the **MarkAsJunkType** complex type.

Element	Type	Description
ItemIds	**NonEmptyArraryOfBaseItemIdsType** (section 2.2.4.11)	Specifies an array of item identifiers.

The following table lists the attributes of the **MarkAsJunkType** complex type.

Attribute name	Type	Description
IsJunk	**xs:boolean** ([XMLSCHEMA2] section 3.2.2)	Specifies whether to mark the item as junk and add the sender to the blocked sender list
MoveItem	**xs:boolean**	Specifies whether to move the item to another folder, as described in the next table.

The following table describes how the attributes affect the behavior of the **MarkAsJunk** operation.

IsJunk attribute value	MoveItem attribute value	Behavior
True	True	The operation adds the sender of the email to the blocked sender list and moves the email item to the **Junk Email folder**.
True	False	The operation adds the sender of the email to the blocked sender list. The email item is not moved.
False	True	The operation removes the sender from the blocked sender list and moves the email item back to the **Inbox folder**.
False	False	The operation removes the sender from the blocked sender list. The email item is not moved.

3.1.4.6.3.2   m:MarkAsJunkResponseType Complex Type

The **MarkAsJunkResponseType** complex type specifies the response from the **MarkAsJunk** operation specified in section 3.1.4.6. This type extends the **BaseResponseMessageType**, as specified in [MS-OXWSCDATA] section 2.2.4.16.

```
   <xs:complexType name="MarkAsJunkResponseType">
     <xs:complexContent>
```

```
            <xs:extension base="m:BaseResponseMessageType" />
         </xs:complexContent>
      </xs:complexType>
```

3.1.4.6.3.3   m:MarkAsJunkResponseMessageType Complex Type

The **MarkAsJunkResponseMessageType** complex type specifies the response message from the **MarkAsJunk** operation specified in section 3.1.4.6. This type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.57.

```
  <xs:complexType name="MarkAsJunkResponseMessageType">
      <xs:complexContent>
        <xs:extension base="m:ResponseMessageType">
          <xs:sequence>
            <xs:sequence>
              <xs:element name="MovedItemId" type="t:ItemIdType" minOccurs="0" maxOccurs="1"/>
            </xs:sequence>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
```

The following table lists and describes the child element of the **MarkAsJunkResponseMessageType** complex type.

Element	Type	Description
MovedItemId	**t:ItemIdType** (section 2.2.4.19)	Specifies the item identifier of the moved item.

3.1.4.6.4   Simple Types

None.

3.1.4.6.5   Attributes

None.

3.1.4.6.6   Groups

None.

3.1.4.6.7   Attribute Groups

None.

3.1.4.7   MoveItem Operation

The **MoveItem** operation moves items on the server.

The following is the WSDL port type specification for the **MoveItem** operation.

```
  <wsdl:operation name="MoveItem">
```

```
   <wsdl:input message="tns:MoveItemSoapIn"/>
   <wsdl:output message="tns:MoveItemSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification for the **MoveItem** operation.

```
<wsdl:operation name="MoveItem">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/MoveItem"/>
   <wsdl:input>
      <soap:header message="tns:MoveItemSoapIn" part="Impersonation" use="literal"/>
      <soap:header message="tns:MoveItemSoapIn" part="MailboxCulture" use="literal"/>
       <soap:header message="tns:MoveItemSoapIn" part="RequestVersion" use="literal"/>
      <soap:body parts="request" use="literal"/>
   </wsdl:input>
   <wsdl:output>
      <soap:body parts="MoveItemResult" use="literal"/>
      <soap:header message="tns:MoveItemSoapOut" part="ServerVersion" use="literal"/>
   </wsdl:output>
</wsdl:operation>
```

3.1.4.7.1   Messages

The following table lists the WSDL message definitions that are specific to the **MoveItem** operation.

Message name	Description
MoveItemSoapIn	Specifies the SOAP message that requests to move an item in a mailbox.
MoveItemSoapOut	Specifies the SOAP message that is returned by the server in response to a **MoveItem** operation request.

3.1.4.7.1.1   tns:MoveItemSoapIn Message

The **MoveItemSoapIn** WSDL message specifies the **MoveItem** operation request to move an item on the server.

```
<wsdl:message name="MoveItemSoapIn">
   <wsdl:part name="request" element="tns:MoveItem"/>
   <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
   <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
   <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **MoveItemSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/MoveItem.

The parts of the **MoveItemSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	**tns:MoveItem** (section 3.1.4.7.2.1)	Specifies the SOAP body of a request.

Part name	Element/type	Description
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.5.6)	Specifies a SOAP header that identifies the culture to be used for accessing a mailbox. The cultures are defined in [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for a **MoveItem** operation request.

3.1.4.7.1.2   tns:MoveItemSoapOut Message

The **MoveItemSoapOut** WSDL message specifies the server response to the **MoveItem** operation request to move an item on the server.

The **MoveItemSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/MoveItem.

The parts of the **MoveItemSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
MoveItemResult	**tns:MoveItemResponse** (section 3.1.4.7.2.2)	Specifies the SOAP body of a response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response to a **MoveItem** operation request.

3.1.4.7.2   Elements

The following table lists the XML schema element definitions that are specific to the **MoveItem** operation.

Element name	Description
MoveItem	Specifies a request to move an item.
MoveItemResponse	Specifies a response to a **MoveItem** operation request.

3.1.4.7.2.1   m:MoveItem Element

The **MoveItem** element specifies a request to move an item.

```
<xs:element name="MoveItem"
  type="m:MoveItemType"
 />
```

3.1.4.7.2.2   m:MoveItemResponse Element

The **MoveItemResponse** element specifies a response to a **MoveItem** operation request.

```
<xs:element name="MoveItemResponse"
  type="m:MoveItemResponseType"
 />
```

3.1.4.7.3   Complex Types

The following table lists the XML schema complex type definitions that are specific to the **MoveItem** operation.

Complex type name	Description
MoveItemResponseType	Specifies a response to a call to the **MoveItem** operation.
MoveItemType	Specifies an operation to move items in a mailbox.

3.1.4.7.3.1   m:MoveItemResponseType Complex Type

The **MoveItemResponseType** complex type specifies a response to a call to the **MoveItem** operation. The **MoveItemResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
<xs:complexType name="MoveItemResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.7.3.2   m:MoveItemType Complex Type

The **MoveItemType** complex type specifies an operation to move items in a mailbox. The **MoveItemType** complex type extends the **BaseMoveCopyItemType** complex type, as specified in section 2.2.4.3.

```
<xs:complexType name="MoveItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseMoveCopyItemType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.8   SendItem Operation

The **SendItem** operation sends messages and post items on the server.

The following is the WSDL port type specification for the **SendItem** operation.

```
<wsdl:operation name="SendItem">
   <wsdl:input message="tns:SendItemSoapIn" />
   <wsdl:output message="tns:SendItemSoapOut" />
</wsdl:operation>
```

The following is the WSDL binding specification for the **SendItem** operation.

```
<wsdl:operation name="SendItem">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SendItem" />
   <wsdl:input>
      <soap:header message="tns:SendItemSoapIn" part="Impersonation" use="literal"/>
      <soap:header message="tns:SendItemSoapIn" part="MailboxCulture" use="literal"/>
      <soap:header message="tns:SendItemSoapIn" part="RequestVersion" use="literal"/>
      <soap:body parts="request" use="literal" />
   </wsdl:input>
   <wsdl:output>
      <soap:body parts="SendItemResult" use="literal" />
      <soap:header message="tns:SendItemSoapOut" part="ServerVersion" use="literal"/>
   </wsdl:output>
</wsdl:operation>
```

3.1.4.8.1   Messages

The following table lists the WSDL message definitions that are specific to the **SendItem** operation.

Message name	Description
SendItemSoapIn	Specifies the SOAP message that requests to send an item.
SendItemSoapOut	Specifies the SOAP message that is sent by the server in response to a **SendItem** operation request.

3.1.4.8.1.1   tns:SendItemSoapIn Message

The **SendItemSoapIn** WSDL message specifies the **SendItem** operation request to post items on the server.

```
<wsdl:message name="SendItemSoapIn">
   <wsdl:part name="request" element="tns:SendItem" />
   <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
   <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
   <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **SendItemSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/SendItem.

The parts of the **SendItemSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	**tns:SendItem** (section 3.1.4.8.2.1)	Specifies the SOAP body of a request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.5.6)	Specifies a SOAP header that identifies the culture to be used for accessing a mailbox. The cultures are defined in [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for a **SendItem** operation request.

3.1.4.8.1.2   tns:SendItemSoapOut Message

The **SendItemSoapOut** WSDL message specifies the server response to a **SendItem** operation request to post items on the server.

```
<wsdl:message name="SendItemSoapOut">
   <wsdl:part name="SendItemResult" element="tns:SendItemResponse" />
   <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **SendItemSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/SendItem.

The parts of the **SendItemSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
SendItemResult	**tns:SendItemResponse** (section 3.1.4.8.2.2)	Specifies the SOAP body of a response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response to a **SendItem** operation request.

3.1.4.8.2   Elements

The following table lists the XML schema element definitions that are specific to the **SendItem** operation.

Element name	Description
SendItem	Specifies a request to send an item.
SentItemResponse	Specifies a response to a **SendItem** operation request.

3.1.4.8.2.1   m:SendItem Element

The **SendItem** element specifies the root element in a request to send an item.

```
<xs:element name="SendItem"
  type="m:SendItemType"
 />
```

3.1.4.8.2.2   m:SendItemResponse Element

The **SendItemResponse** element specifies a response to a **SendItem** operation request.

```
<xs:element name="SendItemResponse"
  type="m:SendItemResponseType"
 />
```

3.1.4.8.3   Complex Types

The following table lists the XML schema complex type definitions that are specific to the **SendItem** operation.

Complex type name	Description
SendItemResponseType	Specifies a response to a **SendItem** operation request.
SendItemType	Specifies a request to send messages and post items on the server.

3.1.4.8.3.1   m:SendItemResponseType Complex Type

The **SendItemResponseType** complex type specifies a response to a **SendItem** operation request. The **SendItemResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
<xs:complexType name="SendItemResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.8.3.2   m:SendItemType Complex Type

The **SendItemType** complex type specifies a request to send messages and post items on the server. The **SendItemType** complex type extends the **BaseRequestType** complex type ([MS-OXWSCDATA] section 2.2.4.15).

```
<xs:complexType name="SendItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
```

```
                  <xs:element name="ItemIds"
                    type="t:NonEmptyArrayOfBaseItemIdsType"
                   />
                  <xs:element name="SavedItemFolderId"
                    type="t:TargetFolderIdType"
                    minOccurs="0"
                   />
             </xs:sequence>
             <xs:attribute name="SaveItemToFolder"
               type="xs:boolean"
               use="required"
              />
         </xs:extension>
     </xs:complexContent>
  </xs:complexType>
```

The following table lists and describes the child elements of the **SendItemType** complex type.

Element name	Type	Description
ItemIds	**t:NonEmptyArrayOfBaseItemIdsType** (section 2.2.4.11)	Specifies an array of item identifiers for the items to try to send.
SavedItemFolderId	**t:TargetFolderIdType** ([MS-OXWSFOLD] section 2.2.4.14)	Specifies the identity of the folder that contains a saved version of a sent item.

The following table lists and describes the attributes of the **SendItemType** complex type.

Attribute name	Type	Description
SaveItemToFolder	**xs:boolean** [XMLSCHEMA2]	Specifies a Boolean value that indicates whether a copy of a sent item is saved.

3.1.4.9   UpdateItem Operation

The **UpdateItem** operation updates items on the server.

The following is the WSDL port type specification for the **UpdateItem** operation.

```
<wsdl:operation name="UpdateItem">
   <wsdl:input message="tns:UpdateItemSoapIn"/>
   <wsdl:output message="tns:UpdateItemSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification for the **UpdateItem** operation.

```
<wsdl:operation name="UpdateItem">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/UpdateItem"/>
   <wsdl:input>
      <soap:header message="tns:UpdateItemSoapIn" part="Impersonation" use="literal"/>
      <soap:header message="tns:UpdateItemSoapIn" part="MailboxCulture" use="literal"/>
```

```
         <soap:header message="tns:UpdateItemSoapIn" part="RequestVersion" use="literal"/>
         <soap:header message="tns:UpdateItemSoapIn" part="TimeZoneContext" use="literal"/>
         <soap:body parts="request" use="literal"/>
      </wsdl:input>
      <wsdl:output>
         <soap:body parts="UpdateItemResult" use="literal"/>
         <soap:header message="tns:UpdateItemSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
   </wsdl:operation>
```

3.1.4.9.1   Messages

The following table lists the WSDL message definitions that are specific to the **UpdateItem** operation.

Message name	Description
UpdateItemSoapIn	Specifies the SOAP message that requests that an item be updated.
UpdateItemSoapOut	Specifies the SOAP message that is returned in response to an **UpdateItem** operation request.

3.1.4.9.1.1   tns:UpdateItemSoapIn Message

The **UpdateItemSoapIn** WSDL message specifies the **UpdateItem** operation request to update items on the server.

```
<wsdl:message name="UpdateItemSoapIn">
   <wsdl:part name="request" element="tns:UpdateItem"/>
   <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
   <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
   <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
   <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
</wsdl:message>
```

The **UpdateItemSoapIn** WSDL message is the input message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/UpdateItem.

The parts of the **UpdateItemSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	**tns:UpdateItem** (section 3.1.4.9.2.1)	Specifies the SOAP body of a request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.5.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.5.6)	Specifies a SOAP header that identifies the culture to be used for accessing a mailbox. The cultures are defined in [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for an **UpdateItem**

Part name	Element/type	Description
		operation request.
TimeZoneContext	**t:TimeZoneContext** ([MS-OXWSGTZ] section 2.2.4.11)	Specifies a SOAP header that identifies the time zone to be used for all responses from the server. All times that are returned from the server will be converted to the specified time zone.

3.1.4.9.1.2   tns:UpdateItemSoapOut Message

The **UpdateItemSoapOut** WSDL message specifies the server response to an **UpdateItem** operation request to update items on the server.

```
<wsdl:message name="UpdateItemSoapOut">
   <wsdl:part name="UpdateItemResult" element="tns:UpdateItemResponse"/>
   <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **UpdateItemSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/UpdateItem.

The parts of the **UpdateItemSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
UpdateItemResult	**tns:UpdateItemResponse** (section 3.1.4.9.2.2)	Specifies the SOAP body of a response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.5.10)	Specifies a SOAP header that identifies the server version for a response to an **UpdateItem** operation request.

3.1.4.9.2   Elements

The following table lists the XML schema element definitions that are specific to the **UpdateItem** operation.

Element name	Description
UpdateItem	Specifies a request to update an item in a mailbox.
UpdateItemResponse	Specifies a response to an **UpdateItem** operation request.

3.1.4.9.2.1   m:UpdateItem Element

The **UpdateItem** element specifies a request to update an item in a mailbox.

```
<xs:element name="UpdateItem"
  type="m:UpdateItemType"
 />
```

3.1.4.9.2.2 m:UpdateItemResponse Element

The **UpdateItemResponse** element specifies a response to an **UpdateItem** operation request.

```
<xs:element name="UpdateItemResponse"
  type="m:UpdateItemResponseType"
 />
```

3.1.4.9.3 Complex Types

The following table lists the XML schema complex type definitions that are specific to this operation.

Complex type name	Description
UpdateItemResponseType	Specifies the response to a call to the **UpdateItem** operation.
UpdateItemType	Specifies a request to update a set of items.
AppendToItemFieldType	Specifies data to append to a single property of an item during and **UpdateItem** operation.
ChangeDescriptionType	Specifies the base type that is used to describe changes in **UpdateFolder** operations, as specified in [MS-OXWSFOLD] section 3.1.4.8, and **UpdateItem** operations.
DeleteItemFieldType	Specifies a property to delete from an item.
ItemChangeDescriptionType	Specifies data that describes changes that are applied by using the **UpdateItem** operation.
ItemChangeType	Specifies an item identifier and the updates to apply to the item.
NonEmptyArrayOfItemChangeDescriptionsType	Specifies an array of items and their change types.
NonEmptyArrayOfItemChangesType	Specifies an array of items and their changes.
SetItemFieldType	Specifies an update to a single property of an item.

3.1.4.9.3.1 m:UpdateItemResponseType Complex Type

The **UpdateItemResponseType** complex type specifies the response to a call to the **UpdateItem** operation. The **UpdateItemResponseType** complex type extends the **BaseResponseMessageType** complex type ([MS-OXWSCDATA] section 2.2.4.16).

```
<xs:complexType name="UpdateItemResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.9.3.2   m:UpdateItemType Complex Type

The **UpdateItemType** complex type specifies a request to update a set of items. The
UpdateItemType complex type extends the **BaseRequestType** complex type ([MS-OXWSCDATA]
section 2.2.4.15).

```
<xs:complexType name="UpdateItemType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="SavedItemFolderId"
          type="t:TargetFolderIdType"
          minOccurs="0"
         />
        <xs:element name="ItemChanges"
          type="t:NonEmptyArrayOfItemChangesType"
         />
      </xs:sequence>
      <xs:attribute name="ConflictResolution"
        type="t:ConflictResolutionType"
        use="required"
       />
      <xs:attribute name="MessageDisposition"
        type="t:MessageDispositionType"
        use="optional"
       />
      <xs:attribute name="SendMeetingInvitationsOrCancellations"
        type="t:CalendarItemUpdateOperationType"
        use="optional"
       />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists the child elements of the **UpdateItemType** complex type.

Element name	Type	Description
SavedItemFolderId	**t:TargetFolderIdType** ([MS-OXWSFOLD] section 2.2.4.14)	Specifies the target folder for saved items.
ItemChanges	**t:NonEmptyArrayOfItemChangesType** (section 3.1.4.9.3.9)	Specifies an array of item changes.

The following table lists the attributes of the **UpdateItemType** complex type.

Attribute name	Type	Description
ConflictResolution	**t:ConflictResolutionType** (section 3.1.4.9.4.1)	Specifies an enumeration

Attribute name	Type	Description
		value that represents the type of conflict resolution that is performed during an update.
MessageDisposition	**t:MessageDispositionType** ([MS-OXWSMSG] section 2.2.5.1)	Specifies an enumeration value that describes how a message item is handled after it is updated.
SendMeetingInvitationsOrCancellations	**t:CalendarItemUpdateOperationType** ([MS-OXWSMTGS] section 2.2.5.3)	Specifies an enumeration value that describes how a calendar item is handled after it is updated.

3.1.4.9.3.3   t:AppendToItemFieldType Complex Type

The **AppendToItemFieldType** complex type specifies data to append to a single property of an item during and **UpdateItem** operation. The **AppendToItemFieldType** complex type extends the **ItemChangeDescriptionType** complex type, as specified in section 3.1.4.9.3.6.

```
<xs:complexType name="AppendToItemFieldType">
  <xs:complexContent>
    <xs:extension
      base="t:ItemChangeDescriptionType"
    >
      <xs:choice>
        <xs:element name="Item"
          type="t:ItemType"
         />
        <xs:element name="Message"
          type="t:MessageType"
         />
        <xs:element name="CalendarItem"
          type="t:CalendarItemType"
         />
        <xs:element name="Contact"
          type="t:ContactItemType"
         />
        <xs:element name="DistributionList"
          type="t:DistributionListType"
         />
        <xs:element name="MeetingMessage"
          type="t:MeetingMessageType"
         />
```

```
                <xs:element name="MeetingRequest"
                  type="t:MeetingRequestMessageType"
                 />
                <xs:element name="MeetingResponse"
                  type="t:MeetingResponseMessageType"
                 />
                <xs:element name="MeetingCancellation"
                  type="t:MeetingCancellationMessageType"
                 />
                <xs:element name="Task"
                  type="t:TaskType"
                 />
                <xs:element name="PostItem"
                  type="t:PostItemType"
                 />
            </xs:choice>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
```

The following table lists the child elements of the **AppendToItemFieldType** complex type.

Element name	Type	Description
Item	**t:ItemType** (section 2.2.4.8)	Specifies a generic item.
Message	**t:MessageType** ([MS-OXWSMSG] section 2.2.4.1)	Specifies an email message or non-IPM.Note item.
CalendarItem	**t:CalendarItemType** ([MS-OXWSMTGS] section 2.2.4.4)	Specifies a calendar item.
Contact	**t:ContactItemType** ([MS-OXWSCONT] section 2.2.4.2)	Specifies a contact item.
DistributionList	**t:DistributionListType** ([MS-OXWSDLIST] section 2.2.4.3)	Specifies a distribution list.
MeetingMessage	**t:MeetingMessageType** ([MS-OXWSMTGS] section 2.2.4.12)	Specifies a meeting.
MeetingRequest	**t:MeetingRequestMessageType** ([MS-OXWSMTGS] section 2.2.4.13)	Specifies a meeting request.
MeetingResponse	**t:MeetingResponseMessageType** ([MS-OXWSMTGS] section 2.2.4.14)	Specifies a meeting response.
MeetingCancellation	**t:MeetingCancellationMessageType** ([MS-OXWSMTGS] section 2.2.4.11)	Specifies a meeting cancellation.
Task	**t:TaskType** ([MS-OXWSTASK] section 2.2.4.3)	Specifies a task.
PostItem	**t:PostItemType** ([MS-OXWSPOST] section 2.2.4.1)	Specifies a post item.

3.1.4.9.3.4   t:ChangeDescriptionType Complex Type

The **ChangeDescriptionType** complex type specifies the base type that is used to describe changes in **UpdateFolder** operation, as specified in [MS-OXWSFOLD] section 3.1.4.8 ,and **UpdateItem** operation, as specified in (section 3.1.4.9).

```
<xs:complexType name="ChangeDescriptionType"
  abstract="true"
>
  <xs:sequence>
    <xs:element
      ref="t:Path"
      />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **ChangeDescriptionType** complex type.

Element	Type	Description
Path	**t:Path** ([MS-OXWSCDATA] section 2.2.5.8)	Specifies a substitution group that specifies the property to update.

3.1.4.9.3.5   t:DeleteItemFieldType Complex Type

The **DeleteItemFieldType** complex type specifies a property to delete from an item. The **DeleteItemFieldType** complex type extends the **ItemChangeDescriptionType** complex type, as specified in section 3.1.4.9.3.6.

```
<xs:complexType name="DeleteItemFieldType">
  <xs:complexContent>
    <xs:extension
      base="t:ItemChangeDescriptionType"
    >
      <xs:sequence />
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

3.1.4.9.3.6   t:ItemChangeDescriptionType Complex Type

The **ItemChangeDescriptionType** complex type specifies data that describes changes that are applied by using the **UpdateItem** operation. The **ItemChangeDescriptionType** complex type extends the **ChangeDescriptionType** complex type, as specified in section 3.1.4.9.3.4.

```
<xs:complexType name="ItemChangeDescriptionType">
  <xs:complexContent>
    <xs:extension
      base="t:ChangeDescriptionType"
      />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.9.3.7   t:ItemChangeType Complex Type

The **ItemChangeType** complex type specifies an item identifier and the updates to apply to the item.

```
<xs:complexType name="ItemChangeType">
  <xs:sequence>
    <xs:choice>
      <xs:element name="ItemId"
        type="t:ItemIdType"
       />
      <xs:element name="OccurrenceItemId"
        type="t:OccurrenceItemIdType"
       />
      <xs:element name="RecurringMasterItemId"
        type="t:RecurringMasterItemIdType"
       />
    </xs:choice>
    <xs:element name="Updates"
      type="t:NonEmptyArrayOfItemChangeDescriptionsType"
     />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **ItemChangeType** complex type.

Element name	Type	Description
ItemId	**t:ItemIdType** (section 2.2.4.19)	Specifies an item identifier of an item in a mailbox.
OccurrenceItemId	**t:OccurrenceItemIdType** (section 2.2.4.15)	Specifies a single occurrence of a recurring item.
RecurringMasterItemId	**t:RecurringMasterItemIdType** (section 2.2.4.17)	Specifies a recurrence master item by identifying the identifiers of one of its related occurrence items.
Updates	**t:NonEmptyArrayOfItemChangeDescriptionsType** (section 3.1.4.9.3.8)	Specifies an array that defines append, set, and delete changes to item properties.

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3.1.4.9.3.8   t:NonEmptyArrayOfItemChangeDescriptionsType Complex Type

The **NonEmptyArrayOfItemChangeDescriptionsType** complex type specifies an array of items and their change types.

```
<xs:complexType name="NonEmptyArrayOfItemChangeDescriptionsType">
  <xs:choice
    maxOccurs="unbounded"
  >
    <xs:element name="AppendToItemField"
      type="t:AppendToItemFieldType"
     />
    <xs:element name="SetItemField"
      type="t:SetItemFieldType"
     />
    <xs:element name="DeleteItemField"
      type="t:DeleteItemFieldType"
     />
  </xs:choice>
</xs:complexType>
```

The following table lists the child elements of the **NonEmptyArrayOfItemChangeDescriptionsType** complex type.

Element name	Type	Description
AppendToItemField	**t:AppendToItemFieldType** (section 3.1.4.9.3.3)	Specifies data to append to a single property of an item during an **UpdateItem** operation.
SetItemField	**t:SetItemFieldType** (section 3.1.4.9.3.10)	Specifies an update to a single property of an item in an **UpdateItem** operation.
DeleteItemField	**t:DeleteItemFieldType** (section 3.1.4.9.3.5)	Specifies an operation to delete a given property from an item during an **UpdateItem** operation.

3.1.4.9.3.9   t:NonEmptyArrayOfItemChangesType Complex Type

The **NonEmptyArrayOfItemChangesType** complex type specifies an array of items and their changes.

```
<xs:complexType name="NonEmptyArrayOfItemChangesType">
  <xs:sequence>
    <xs:element name="ItemChange"
      type="t:ItemChangeType"
     />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **NonEmptyArrayOfItemChangesType** complex type.

Element name	Type	Description
ItemChange	**t:ItemChangeType** (section 3.1.4.9.3.7)	Specifies an item identifier and the updates to apply to the item.

3.1.4.9.3.10   t:SetItemFieldType Complex Type

The **SetItemFieldType** complex type specifies an update to a single property of an item. The **SetItemFieldType** complex type extends the **ItemChangeDescription** complex type, as specified in section 3.1.4.9.3.6.

```xml
<xs:complexType name="SetItemFieldType">
  <xs:complexContent>
    <xs:extension
      base="t:ItemChangeDescriptionType"
    >
      <xs:choice>
        <xs:element name="Item"
          type="t:ItemType"
         />
        <xs:element name="Message"
          type="t:MessageType"
         />
        <xs:element name="CalendarItem"
          type="t:CalendarItemType"
         />
        <xs:element name="Contact"
          type="t:ContactItemType"
         />
        <xs:element name="DistributionList"
          type="t:DistributionListType"
         />
        <xs:element name="MeetingMessage"
          type="t:MeetingMessageType"
         />
        <xs:element name="MeetingRequest"
          type="t:MeetingRequestMessageType"
         />
        <xs:element name="MeetingResponse"
          type="t:MeetingResponseMessageType"
         />
        <xs:element name="MeetingCancellation"
          type="t:MeetingCancellationMessageType"
         />
        <xs:element name="Task"
          type="t:TaskType"
         />
        <xs:element name="PostItem"
          type="t:PostItemType"
         />
      </xs:choice>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists and describes the child elements of the **SetItemFieldType** complex type.

Element name	Type	Description
Item	**t:ItemType** (section 2.2.4.8)	Specifies a generic item.
Message	**t:MessageType** ([MS-OXWSMSG] section 2.2.4.1)	Specifies an email message or non-IPM.Note item.
CalendarItem	**t:CalendarItemType** ([MS-OXWSMTGS] section 2.2.4.4)	Specifies a calendar item.
Contact	**t:ContactItemType** ([MS-OXWSCONT] section 2.2.4.2)	Specifies a contact item.
DistributionList	**t:DistributionListType** ([MS-OXWSDLIST] section 2.2.4.3)	Specifies a distribution list.
MeetingMessage	**t:MeetingMessageType** ([MS-OXWSMTGS] section 2.2.4.12)	Specifies a meeting.
MeetingRequest	**t:MeetingRequestMessageType** ([MS-OXWSMTGS] section 2.2.4.13)	Specifies a meeting request.
MeetingResponse	**t:MeetingResponseMessageType** ([MS-OXWSMTGS] section 2.2.4.14)	Specifies meeting response.
MeetingCancellation	**t:MeetingCancellationMessageType** ([MS-OXWSMTGS] section 2.2.4.11)	Specifies meeting cancellation.
Task	**t:TaskType** ([MS-OXWSTASK] section 2.2.4.3)	Specifies a task.
PostItem	**t:PostItemType** ([MS-OXWSPOST] section 2.2.4.1)	Specifies a post item.

3.1.4.9.4   Simple Types

The following table lists the XML schema simple type definitions that are specific to the **UpdateItem** operation.

Simple type name	Description
ConflictResolutionType	Specifies how a conflict is to be handled during an **UpdateItem** operation.

3.1.4.9.4.1   t:ConflictResolutionType Simple Type

The **ConflictResolutionType** simple type specifies how a conflict is to be handled during an **UpdateItem** operation.

```
<xs:simpleType name="ConflictResolutionType">
  <xs:restriction
    base="xs:string"
  >
    <xs:enumeration
      value="AlwaysOverwrite"
    />
    <xs:enumeration
```

```
      value="AutoResolve"
    />
   <xs:enumeration
     value="NeverOverwrite"
    />
  </xs:restriction>
 </xs:simpleType>
```

The following table lists the values that are defined by the **ConflictResolutionType** simple type.

Value	Meaning
AlwaysOverwrite	If there is a conflict, the **UpdateItem** operation will overwrite information.
AutoResolve	The **UpdateItem** operation automatically resolves any conflict. The "AutoResolve" option will in most cases overwrite the existing value for a property. In some cases, the new value is ignored and the original value is retained. For example, user A changes the value of the **Sensitivity** property from "Normal" to "Confidential", and then user B sets that value to "Public". In this example, the "Confidential" setting is retained and user B's update is ignored.
NeverOverwrite	If there is a conflict, the **UpdateItem** operation fails and an error is returned.

3.1.5   Timer Events

None.

3.1.6   Other Local Events

None.

4   Protocol Examples

This section provides a simplified example of a request-response sequence for the **CreateItem** operation, as specified in section 3.1.4.2.

The following example shows a **CreateItem** request to create a message, send it, and save a copy in the SentItems folder.

```
<?xml version="1.0" encoding="utf-8" ?>
<CreateItem xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                xmlns:xsd="http://www.w3.org/2001/XMLSchema"
                MessageDisposition="SendAndSaveCopy">
  <SavedItemFolderId xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
    <DistinguishedFolderId Id="sentitems"
xmlns="http://schemas.microsoft.com/exchange/services/2006/types" />
  </SavedItemFolderId>
  <Items xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
    <Message xmlns="http://schemas.microsoft.com/exchange/services/2006/types">
      <ItemClass>IPM.Note</ItemClass>
      <Subject>Daily Report</Subject>
      <Body BodyType="Text">(1) Handled customer issues, (2) Saved the world.</Body>
      <Sender>
        <Mailbox>
          <EmailAddress>user1@example.com</EmailAddress>
        </Mailbox>
      </Sender>
      <ToRecipients>
        <Mailbox>
          <EmailAddress>user2@example.com</EmailAddress>
        </Mailbox>
      </ToRecipients>
    </Message>
  </Items>
</CreateItem>
```

The following example shows a **CreateItem** response to the request to create a message, send it, and save a copy in the SentItems folder.

```
<?xml version="1.0" encoding="utf-8" ?>
<CreateItemResponseType xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                        xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <ResponseMessages xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
    <CreateItemResponseMessage ResponseClass="Success">
      <ResponseCode>NoError</ResponseCode>
      <Items />
    </CreateItemResponseMessage>
  </ResponseMessages>
</CreateItemResponseType>
```

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5   Security

5.1   Security Considerations for Implementers

None.

5.2   Index of Security Parameters

None.

6   Appendix A: Full WSDL

The XML files that are listed in the following table are required in order to implement the functionality described in this document.

File name	Description	Section
MS-OXWSCORE.wsdl	Contains the WSDL for the implementation of this protocol.	6
MS-OXWSCORE-messages.xsd	Contains the XML schema message definitions used in this protocol.	7.1
MS-OXWSCORE-types.xsd	Contains the XML schema type definitions used in this protocol.	7.2

These files have to be placed in a common folder for the WSDL to validate and operate. Also, any schema files that are included in or imported into the MS-OXWSCORE-types.xsd or MS-OXWSCORE-messages.xsd schemas have to be placed in the common folder with the files named in the table.

This section provides the contents of the MS-OXWSCORE.wsdl file.

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
  <wsdl:types>
    <xs:schema id="messages" elementFormDefault="qualified" version="Exchange2013"
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSCORE-types.xsd"/>
      <xs:include schemaLocation="MS-OXWSCORE-messages.xsd"/>
      <!-- Add global elements and types from messages.xsd -->
    </xs:schema>
    <xs:schema id="types" elementFormDefault="qualified" version="Exchange2013"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
      <!-- Add global elements and types from types.xsd -->
    </xs:schema>
  </wsdl:types>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="GetItem">
      <wsdl:input message="tns:GetItemSoapIn"/>
      <wsdl:output message="tns:GetItemSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="CreateItem">
      <wsdl:input message="tns:CreateItemSoapIn"/>
      <wsdl:output message="tns:CreateItemSoapOut"/>
    </wsdl:operation>
```

```
<wsdl:operation name="DeleteItem">
  <wsdl:input message="tns:DeleteItemSoapIn"/>
  <wsdl:output message="tns:DeleteItemSoapOut"/>
</wsdl:operation>
<wsdl:operation name="UpdateItem">
  <wsdl:input message="tns:UpdateItemSoapIn"/>
  <wsdl:output message="tns:UpdateItemSoapOut"/>
</wsdl:operation>
<wsdl:operation name="UpdateItemInRecoverableItems">
  <wsdl:input message="tns:UpdateItemInRecoverableItemsSoapIn"/>
  <wsdl:output message="tns:UpdateItemInRecoverableItemsSoapOut"/>
</wsdl:operation>
<wsdl:operation name="MarkAllItemsAsRead">
  <wsdl:input message="tns:MarkAllItemsAsReadSoapIn"/>
  <wsdl:output message="tns:MarkAllItemsAsReadSoapOut"/>
</wsdl:operation>
<wsdl:operation name="MarkAsJunk">
  <wsdl:input message="tns:MarkAsJunkSoapIn" />
  <wsdl:output message="tns:MarkAsJunkSoapOut" />
</wsdl:operation>
<wsdl:operation name="MoveItem">
  <wsdl:input message="tns:MoveItemSoapIn"/>
  <wsdl:output message="tns:MoveItemSoapOut"/>
</wsdl:operation>
<wsdl:operation name="CopyItem">
  <wsdl:input message="tns:CopyItemSoapIn"/>
  <wsdl:output message="tns:CopyItemSoapOut"/>
</wsdl:operation>
<wsdl:operation name="SendItem">
  <wsdl:input message="tns:SendItemSoapIn"/>
  <wsdl:output message="tns:SendItemSoapOut"/>
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="ExchangeServiceBinding" type="tns:ExchangeServicePortType">
  <wsdl:documentation>
    <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://ws-
i.org/schemas/conformanceClaim/"/>
  </wsdl:documentation>
  <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
  <wsdl:operation name="GetItem">
    <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetItem"/>
    <wsdl:input>
      <soap:header message="tns:GetItemSoapIn" part="Impersonation" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="MailboxCulture" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="RequestVersion" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="TimeZoneContext" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="DateTimePrecision" use="literal"/>
      <soap:header message="tns:GetItemSoapIn" part="ManagementRole" use="literal" />
      <soap:body parts="request" use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body parts="GetItemResult" use="literal"/>
      <soap:header message="tns:GetItemSoapOut" part="ServerVersion" use="literal"/>
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="CreateItem">
    <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/CreateItem"/>
```

```
      <wsdl:input>
        <soap:header message="tns:CreateItemSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:CreateItemSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:CreateItemSoapIn" part="RequestVersion" use="literal"/>
        <soap:header message="tns:CreateItemSoapIn" part="TimeZoneContext" use="literal"/>
        <soap:body parts="request" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="CreateItemResult" use="literal"/>
        <soap:header message="tns:CreateItemSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteItem">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DeleteItem"/>
      <wsdl:input>
        <soap:header message="tns:DeleteItemSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:DeleteItemSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:DeleteItemSoapIn" part="RequestVersion" use="literal"/>
        <soap:body parts="request" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="DeleteItemResult" use="literal"/>
        <soap:header message="tns:DeleteItemSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateItem">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/UpdateItem"/>
      <wsdl:input>
        <soap:header message="tns:UpdateItemSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:UpdateItemSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:UpdateItemSoapIn" part="RequestVersion" use="literal"/>
        <soap:header message="tns:UpdateItemSoapIn" part="TimeZoneContext" use="literal"/>
        <soap:body parts="request" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="UpdateItemResult" use="literal"/>
        <soap:header message="tns:UpdateItemSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UpdateItemInRecoverableItems">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/UpdateItemInRecovera
bleItems"/>
      <wsdl:input>
        <soap:header message="tns:UpdateItemInRecoverableItemsSoapIn" part="Impersonation"
use="literal"/>
        <soap:header message="tns:UpdateItemInRecoverableItemsSoapIn" part="MailboxCulture"
use="literal"/>
        <soap:header message="tns:UpdateItemInRecoverableItemsSoapIn" part="RequestVersion"
use="literal"/>
        <soap:header message="tns:UpdateItemInRecoverableItemsSoapIn" part="TimeZoneContext"
use="literal"/>
        <soap:header message="tns:UpdateItemInRecoverableItemsSoapIn" part="ManagementRole"
use="literal"/>
        <soap:body parts="request" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="UpdateItemInRecoverableItemsResult" use="literal"/>
```

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```
        <soap:header message="tns:UpdateItemInRecoverableItemsSoapOut" part="ServerVersion"
use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="MarkAllItemsAsRead">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/MarkAllItemsAsRead"/
>
      <wsdl:input>
        <soap:header message="tns:MarkAllItemsAsReadSoapIn" part="Impersonation"
use="literal"/>
        <soap:header message="tns:MarkAllItemsAsReadSoapIn" part="MailboxCulture"
use="literal"/>
        <soap:header message="tns:MarkAllItemsAsReadSoapIn" part="RequestVersion"
use="literal"/>
        <soap:body parts="request" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="MarkAllItemsAsReadResult" use="literal"/>
        <soap:header message="tns:MarkAllItemsAsReadSoapOut" part="ServerVersion"
use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="MarkAsJunk">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/MarkAsJunk" />
      <wsdl:input>
        <soap:header message="tns:MarkAsJunkSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:MarkAsJunkSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:MarkAsJunkSoapIn" part="RequestVersion" use="literal"/>
        <soap:body parts="request" use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="MarkAsJunkResult" use="literal" />
        <soap:header message="tns:MarkAsJunkSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="MoveItem">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/MoveItem"/>
      <wsdl:input>
        <soap:header message="tns:MoveItemSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:MoveItemSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:MoveItemSoapIn" part="RequestVersion" use="literal"/>
        <soap:body parts="request" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="MoveItemResult" use="literal"/>
        <soap:header message="tns:MoveItemSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CopyItem">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/CopyItem"/>
      <wsdl:input>
        <soap:header message="tns:CopyItemSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:CopyItemSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:CopyItemSoapIn" part="RequestVersion" use="literal"/>
        <soap:body parts="request" use="literal"/>
      </wsdl:input>
```

```
        <wsdl:output>
          <soap:body parts="CopyItemResult" use="literal"/>
          <soap:header message="tns:CopyItemSoapOut" part="ServerVersion" use="literal"/>
        </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="SendItem">
        <soap:operation
  soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SendItem"/>
        <wsdl:input>
          <soap:header message="tns:SendItemSoapIn" part="Impersonation" use="literal"/>
          <soap:header message="tns:SendItemSoapIn" part="MailboxCulture" use="literal"/>
          <soap:header message="tns:SendItemSoapIn" part="RequestVersion" use="literal"/>
          <soap:body parts="request" use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap:body parts="SendItemResult" use="literal"/>
          <soap:header message="tns:SendItemSoapOut" part="ServerVersion" use="literal"/>
        </wsdl:output>
      </wsdl:operation>
    </wsdl:binding>
    <wsdl:message name="GetItemSoapIn">
      <wsdl:part name="request" element="tns:GetItem"/>
      <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
      <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
      <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
      <wsdl:part name="DateTimePrecision" element="t:DateTimePrecision"/>
      <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
    </wsdl:message>
    <wsdl:message name="GetItemSoapOut">
      <wsdl:part name="GetItemResult" element="tns:GetItemResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:message name="CreateItemSoapIn">
      <wsdl:part name="request" element="tns:CreateItem"/>
      <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
      <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
      <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
    </wsdl:message>
    <wsdl:message name="CreateItemSoapOut">
      <wsdl:part name="CreateItemResult" element="tns:CreateItemResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:message name="DeleteItemSoapIn">
      <wsdl:part name="request" element="tns:DeleteItem"/>
      <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
      <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="DeleteItemSoapOut">
      <wsdl:part name="DeleteItemResult" element="tns:DeleteItemResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:message name="UpdateItemSoapIn">
      <wsdl:part name="request" element="tns:UpdateItem"/>
      <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
      <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
```

```
    <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
  </wsdl:message>
  <wsdl:message name="UpdateItemSoapOut">
    <wsdl:part name="UpdateItemResult" element="tns:UpdateItemResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="UpdateItemInRecoverableItemsSoapIn">
    <wsdl:part name="request" element="tns:UpdateItemInRecoverableItems"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="UpdateItemInRecoverableItemsSoapOut">
    <wsdl:part name="UpdateItemInRecoverableItemsResult"
 element="tns:UpdateItemInRecoverableItemsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="MarkAllItemsAsReadSoapIn">
    <wsdl:part name="request" element="tns:MarkAllItemsAsRead"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  </wsdl:message>
  <wsdl:message name="MarkAllItemsAsReadSoapOut">
    <wsdl:part name="MarkAllItemsAsReadResult" element="tns:MarkAllItemsAsReadResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="MarkAsJunkSoapIn">
    <wsdl:part name="request" element="tns:MarkAsJunk" />
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  </wsdl:message>
  <wsdl:message name="MarkAsJunkSoapOut">
    <wsdl:part name="MarkAsJunkResult" element="tns:MarkAsJunkResponse" />
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="MoveItemSoapIn">
    <wsdl:part name="request" element="tns:MoveItem"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  </wsdl:message>
  <wsdl:message name="MoveItemSoapOut">
    <wsdl:part name="MoveItemResult" element="tns:MoveItemResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="CopyItemSoapIn">
    <wsdl:part name="request" element="tns:CopyItem"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  </wsdl:message>
  <wsdl:message name="CopyItemSoapOut">
    <wsdl:part name="CopyItemResult" element="tns:CopyItemResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
```

```
<wsdl:message name="SendItemSoapIn">
  <wsdl:part name="request" element="tns:SendItem"/>
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
  <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="SendItemSoapOut">
  <wsdl:part name="SendItemResult" element="tns:SendItemResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
</wsdl:definitions>
```

7 Appendix B: Full XML Schema

For ease of implementation, the following sections provide the full XML schema for this protocol.

Schema name	Prefix	Section
Messages schema	m:	7.1
Types schema	t:	7.2

These files have to be placed in a common folder in order for the WSDL to validate and operate. Also, any schema files that are included in or imported into the MS-OXWSNTIF-types.xsd or MS-OXWSNTIF-messages.xsd schemas have to be placed in the common folder along with the files listed in the table.

7.1 Messages Schema

This section provides the contents of the MS-OXWSCORE-messages.xsd file and information about additional files that this schema file requires to operate correctly.

MS-OXWSCORE-messages.xsd includes the files listed in the following table. To operate correctly, these files have to be present in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

File name	Defining specification
MS-OXWSCDATA-messages.xsd	[MS-OXWSCDATA] section 7.1
MS-OXWSCDATA-types.xsd	[MS-OXWSCDATA] section 7.2
MS-OXWSMSG-types.xsd	[MS-OXWSMSG] section 7.1

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
elementFormDefault="qualified" version="Exchange2013" id="messages">
  <!-- Import common types. -->
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSCDATA-types.xsd"/>
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSCORE-types.xsd"/>
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSMSG-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
  <xs:complexType name="BaseMoveCopyItemType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="ToFolderId" type="t:TargetFolderIdType"/>
          <xs:element name="ItemIds" type="t:NonEmptyArrayOfBaseItemIdsType"/>
          <xs:element name="ReturnNewItemIds" type="xs:boolean" minOccurs="0"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
```

```
      </xs:complexType>
      <xs:element name="CopyItem" type="m:CopyItemType"/>
      <xs:complexType name="CopyItemType">
        <xs:complexContent>
          <xs:extension base="m:BaseMoveCopyItemType"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:element name="CopyItemResponse" type="m:CopyItemResponseType"/>
      <xs:complexType name="CopyItemResponseType">
        <xs:complexContent>
          <xs:extension base="m:BaseResponseMessageType"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:complexType name="CreateItemResponseType">
        <xs:complexContent>
          <xs:extension base="m:BaseResponseMessageType"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:element name="CreateItemResponse" type="m:CreateItemResponseType"/>
      <xs:complexType name="CreateItemType">
        <xs:complexContent>
          <xs:extension base="m:BaseRequestType">
            <xs:sequence>
              <xs:element name="SavedItemFolderId" type="t:TargetFolderIdType" minOccurs="0"/>
              <xs:element name="Items" type="t:NonEmptyArrayOfAllItemsType"/>
            </xs:sequence>
            <xs:attribute name="MessageDisposition" type="t:MessageDispositionType"
  use="optional"/>
            <xs:attribute name="SendMeetingInvitations"
  type="t:CalendarItemCreateOrDeleteOperationType" use="optional"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:element name="CreateItem" type="m:CreateItemType"/>
      <xs:complexType name="DeleteItemType">
        <xs:complexContent>
          <xs:extension base="m:BaseRequestType">
            <xs:sequence>
              <xs:element name="ItemIds" type="t:NonEmptyArrayOfBaseItemIdsType"/>
            </xs:sequence>
            <xs:attribute name="DeleteType" type="t:DisposalType" use="required"/>
            <xs:attribute name="SendMeetingCancellations"
  type="t:CalendarItemCreateOrDeleteOperationType" use="optional"/>
            <xs:attribute name="AffectedTaskOccurrences" type="t:AffectedTaskOccurrencesType"
  use="optional"/>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:element name="DeleteItem" type="m:DeleteItemType"/>
      <xs:complexType name="DeleteItemResponseType">
        <xs:complexContent>
          <xs:extension base="m:BaseResponseMessageType"/>
        </xs:complexContent>
      </xs:complexType>
      <xs:element name="DeleteItemResponse" type="m:DeleteItemResponseType"/>
      <xs:complexType name="GetItemType">
        <xs:complexContent>
          <xs:extension base="m:BaseRequestType">
            <xs:sequence>
```

```xml
                <xs:element name="ItemShape" type="t:ItemResponseShapeType"/>
                <xs:element name="ItemIds" type="t:NonEmptyArrayOfBaseItemIdsType"/>
              </xs:sequence>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:element name="GetItem" type="m:GetItemType"/>
        <xs:complexType name="GetItemResponseType">
          <xs:complexContent>
            <xs:extension base="m:BaseResponseMessageType"/>
          </xs:complexContent>
        </xs:complexType>
        <xs:element name="GetItemResponse" type="m:GetItemResponseType"/>
        <xs:complexType name="MarkAllItemsAsReadType">
          <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
              <xs:sequence>
                <xs:element name="ReadFlag" type="xs:boolean" minOccurs="1" maxOccurs="1"/>
                <xs:element name="SuppressReadReceipts" type="xs:boolean" minOccurs="1"
maxOccurs="1"/>
                <xs:element name="FolderIds" type="t:NonEmptyArrayOfBaseFolderIdsType"/>
              </xs:sequence>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:element name="MarkAllItemsAsRead" type="m:MarkAllItemsAsReadType"/>
        <xs:complexType name="MarkAllItemsAsReadResponseType">
          <xs:complexContent>
            <xs:extension base="m:BaseResponseMessageType"/>
          </xs:complexContent>
        </xs:complexType>
        <xs:element name="MarkAllItemsAsReadResponse" type="m:MarkAllItemsAsReadResponseType"/>
        <xs:complexType name="MarkAsJunkType">
          <xs:complexContent mixed="false">
            <xs:extension base="m:BaseRequestType">
              <xs:sequence>
                <xs:element name="ItemIds" type="t:NonEmptyArrayOfBaseItemIdsType" minOccurs="1"
maxOccurs="1"/>
              </xs:sequence>
              <xs:attribute name="IsJunk" type="xs:boolean" use="required" />
              <xs:attribute name="MoveItem" type="xs:boolean" use="required" />
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:element name="MarkAsJunk" type="m:MarkAsJunkType" />
        <!-- MarkAsJunk response -->
        <xs:complexType name="MarkAsJunkResponseType">
          <xs:complexContent>
            <xs:extension base="m:BaseResponseMessageType" />
          </xs:complexContent>
        </xs:complexType>
        <xs:element name="MarkAsJunkResponse" type="m:MarkAsJunkResponseType" />
        <xs:complexType name="MarkAsJunkResponseMessageType">
          <xs:complexContent>
            <xs:extension base="m:ResponseMessageType">
              <xs:sequence>
                <xs:sequence>
                  <xs:element name="MovedItemId" type="t:ItemIdType" minOccurs="0" maxOccurs="1"/>
                </xs:sequence>
```

```
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="MoveItemResponseType">
    <xs:complexContent>
      <xs:extension base="m:BaseResponseMessageType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="MoveItemResponse" type="m:MoveItemResponseType"/>
  <xs:complexType name="MoveItemType">
    <xs:complexContent>
      <xs:extension base="m:BaseMoveCopyItemType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="MoveItem" type="m:MoveItemType"/>
  <xs:complexType name="SendItemResponseType">
    <xs:complexContent>
      <xs:extension base="m:BaseResponseMessageType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="SendItemResponse" type="m:SendItemResponseType"/>
  <xs:complexType name="SendItemType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="ItemIds" type="t:NonEmptyArrayOfBaseItemIdsType"/>
          <xs:element name="SavedItemFolderId" type="t:TargetFolderIdType" minOccurs="0"/>
        </xs:sequence>
        <xs:attribute name="SaveItemToFolder" type="xs:boolean" use="required"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="SendItem" type="m:SendItemType"/>
  <xs:complexType name="UpdateItemResponseType">
    <xs:complexContent>
      <xs:extension base="m:BaseResponseMessageType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="UpdateItemResponse" type="m:UpdateItemResponseType"/>
  <xs:complexType name="UpdateItemType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="SavedItemFolderId" type="t:TargetFolderIdType" minOccurs="0"/>
          <xs:element name="ItemChanges" type="t:NonEmptyArrayOfItemChangesType"/>
        </xs:sequence>
        <xs:attribute name="ConflictResolution" type="t:ConflictResolutionType"
use="required"/>
        <xs:attribute name="MessageDisposition" type="t:MessageDispositionType"
use="optional"/>
        <xs:attribute name="SendMeetingInvitationsOrCancellations"
type="t:CalendarItemUpdateOperationType" use="optional"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="UpdateItem" type="m:UpdateItemType"/>
  <xs:complexType name="UpdateItemResponseMessageType">
    <xs:complexContent>
```

```
              <xs:extension base="m:ItemInfoResponseMessageType">
                <xs:sequence>
                  <xs:element name="ConflictResults" type="t:ConflictResultsType" minOccurs="0"/>
                </xs:sequence>
              </xs:extension>
            </xs:complexContent>
          </xs:complexType>
        <xs:element name="UpdateItemInRecoverableItems" type="m:UpdateItemInRecoverableItemsType"/>
          <xs:complexType name="UpdateItemInRecoverableItemsType">
          <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
              <xs:sequence>
                <xs:element name="ItemId" type="t:ItemIdType"/>
                <xs:element name="Updates" type="t:NonEmptyArrayOfItemChangeDescriptionsType"
 minOccurs="0"/>
                <xs:element name="Attachments" type="t:NonEmptyArrayOfAttachmentsType"
 minOccurs="0"/>
                <xs:element name="MakeItemImmutable" type="xs:boolean" minOccurs="0"/>
              </xs:sequence>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="UpdateItemInRecoverableItemsResponseMessageType">
          <xs:complexContent>
            <xs:extension base="m:ItemInfoResponseMessageType">
              <xs:sequence>
                <xs:element name="Attachments" type="t:ArrayOfAttachmentsType" minOccurs="0"/>
                <xs:element name="ConflictResults" type="t:ConflictResultsType" minOccurs="0"/>
              </xs:sequence>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="UpdateItemInRecoverableItemsResponseType">
          <xs:complexContent>
            <xs:extension base="m:BaseResponseMessageType"/>
          </xs:complexContent>
        </xs:complexType>
        <xs:element name="UpdateItemInRecoverableItemsResponse"
 type="m:UpdateItemInRecoverableItemsResponseMessageType"/>
      </xs:schema>
```

7.2 Types Schema

This section provides the contents of the MS-OXWSCORE-types.xsd file and information about additional files that this schema file requires to operate correctly.

MS-OXWSCORE-types.xsd includes the following file. To operate correctly, this file has to be included in the folder that contains the WSDL, types, and messages schema files for this protocol.

File name	Defining specification
MS-OXWSCDATA-types.xsd	[MS-OXWSCDATA] section 7.2

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
```

```xml
    targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
  elementFormDefault="qualified" version="Exchange2013" id="types">
    <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
    <xs:include schemaLocation="MS-OXWSCDATA-types.xsd"/>
    <xs:include schemaLocation="MS-OXWSURPT-types.xsd"/>
    <xs:complexType name="AppendToItemFieldType">
      <xs:complexContent>
        <xs:extension base="t:ItemChangeDescriptionType">
          <xs:choice>
            <xs:element name="Item" type="t:ItemType"/>
            <xs:element name="Message" type="t:MessageType"/>
            <xs:element name="CalendarItem" type="t:CalendarItemType"/>
            <xs:element name="Contact" type="t:ContactItemType"/>
            <xs:element name="DistributionList" type="t:DistributionListType"/>
            <xs:element name="MeetingMessage" type="t:MeetingMessageType"/>
            <xs:element name="MeetingRequest" type="t:MeetingRequestMessageType"/>
            <xs:element name="MeetingResponse" type="t:MeetingResponseMessageType"/>
            <xs:element name="MeetingCancellation" type="t:MeetingCancellationMessageType"/>
            <xs:element name="Task" type="t:TaskType"/>
            <xs:element name="PostItem" type="t:PostItemType"/>
          </xs:choice>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="ArrayOfOccurrenceRangesType">
      <xs:sequence>
        <xs:element name="Range" type="t:OccurrencesRangeType" maxOccurs="unbounded"/>
      </xs:sequence>
    </xs:complexType>
    <xs:element name="BaseItemId" type="t:BaseItemIdType"/>
    <xs:complexType name="ChangeDescriptionType" abstract="true">
      <xs:sequence>
        <xs:element ref="t:Path"/>
      </xs:sequence>
    </xs:complexType>
    <xs:simpleType name="ConflictResolutionType">
      <xs:restriction base="xs:string">
        <xs:enumeration value="NeverOverwrite"/>
        <xs:enumeration value="AutoResolve"/>
        <xs:enumeration value="AlwaysOverwrite"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:complexType name="ConflictResultsType">
      <xs:sequence>
        <xs:element name="Count" type="xs:int"/>
      </xs:sequence>
    </xs:complexType>
    <xs:complexType name="DeleteItemFieldType">
      <xs:complexContent>
        <xs:extension base="t:ItemChangeDescriptionType">
          <xs:sequence/>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:simpleType name="DerivedItemIdType">
      <xs:restriction base="xs:string"/>
    </xs:simpleType>
    <xs:complexType name="EntityType">
      <xs:sequence>
```

```
            <xs:element name="Position" type="t:EmailPositionType" minOccurs="0"
 maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="FlagType">
      <xs:sequence>
         <xs:element name="FlagStatus" type="t:FlagStatusType" minOccurs="1" maxOccurs="1"/>
         <xs:element name="StartDate" type="xs:dateTime" minOccurs="0"/>
         <xs:element name="DueDate" type="xs:dateTime" minOccurs="0"/>
         <xs:element name="CompleteDate" type="xs:dateTime" minOccurs="0"/>
      </xs:sequence>
   </xs:complexType>
   <xs:simpleType name="ImportanceChoicesType">
      <xs:restriction base="xs:string">
         <xs:enumeration value="Low"/>
         <xs:enumeration value="Normal"/>
         <xs:enumeration value="High"/>
      </xs:restriction>
   </xs:simpleType>
   <xs:complexType name="ItemChangeDescriptionType">
      <xs:complexContent>
         <xs:extension base="t:ChangeDescriptionType"/>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="ItemChangeType">
      <xs:sequence>
         <xs:choice>
            <xs:element name="ItemId" type="t:ItemIdType"/>
            <xs:element name="OccurrenceItemId" type="t:OccurrenceItemIdType"/>
            <xs:element name="RecurringMasterItemId" type="t:RecurringMasterItemIdType"/>
         </xs:choice>
         <xs:element name="Updates" type="t:NonEmptyArrayOfItemChangeDescriptionsType"/>
      </xs:sequence>
   </xs:complexType>
   <xs:simpleType name="ItemClassType">
      <xs:restriction base="xs:string"/>
   </xs:simpleType>
   <xs:complexType name="ItemIdType">
      <xs:annotation>
         <xs:documentation>Identifier for a fully resolved item</xs:documentation>
      </xs:annotation>
      <xs:complexContent>
         <xs:extension base="t:BaseItemIdType">
            <xs:attribute name="Id" type="xs:string" use="required"/>
            <xs:attribute name="ChangeKey" type="xs:string" use="optional"/>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="ItemType">
      <xs:sequence>
         <xs:element name="MimeContent" type="t:MimeContentType" minOccurs="0"/>
         <xs:element name="ItemId" type="t:ItemIdType" minOccurs="0"/>
         <xs:element name="ParentFolderId" type="t:FolderIdType" minOccurs="0"/>
         <xs:element name="ItemClass" type="t:ItemClassType" minOccurs="0"/>
         <xs:element name="Subject" type="xs:string" minOccurs="0"/>
         <xs:element name="Sensitivity" type="t:SensitivityChoicesType" minOccurs="0"/>
         <xs:element name="Body" type="t:BodyType" minOccurs="0"/>
         <xs:element name="Attachments" type="t:NonEmptyArrayOfAttachmentsType" minOccurs="0"/>
         <xs:element name="DateTimeReceived" type="xs:dateTime" minOccurs="0"/>
```

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```xml
      <xs:element name="Size" type="xs:int" minOccurs="0"/>
      <xs:element name="Categories" type="t:ArrayOfStringsType" minOccurs="0"/>
      <xs:element name="Importance" type="t:ImportanceChoicesType" minOccurs="0"/>
      <xs:element name="InReplyTo" type="xs:string" minOccurs="0"/>
      <xs:element name="IsSubmitted" type="xs:boolean" minOccurs="0"/>
      <xs:element name="IsDraft" type="xs:boolean" minOccurs="0"/>
      <xs:element name="IsFromMe" type="xs:boolean" minOccurs="0"/>
      <xs:element name="IsResend" type="xs:boolean" minOccurs="0"/>
      <xs:element name="IsUnmodified" type="xs:boolean" minOccurs="0"/>
      <xs:element name="InternetMessageHeaders" type="t:NonEmptyArrayOfInternetHeadersType"
  minOccurs="0"/>
      <xs:element name="DateTimeSent" type="xs:dateTime" minOccurs="0"/>
      <xs:element name="DateTimeCreated" type="xs:dateTime" minOccurs="0"/>
      <xs:element name="ResponseObjects" type="t:NonEmptyArrayOfResponseObjectsType"
  minOccurs="0"/>
      <xs:element name="ReminderDueBy" type="xs:dateTime" minOccurs="0"/>
      <xs:element name="ReminderIsSet" type="xs:boolean" minOccurs="0"/>
      <xs:element name="ReminderNextTime" type="xs:dateTime" minOccurs="0"/>
      <xs:element name="ReminderMinutesBeforeStart" type="t:ReminderMinutesBeforeStartType"
  minOccurs="0"/>
      <xs:element name="DisplayCc" type="xs:string" minOccurs="0"/>
      <xs:element name="DisplayTo" type="xs:string" minOccurs="0"/>
      <xs:element name="HasAttachments" type="xs:boolean" minOccurs="0"/>
      <xs:element name="ExtendedProperty" type="t:ExtendedPropertyType" minOccurs="0"
  maxOccurs="unbounded"/>
      <xs:element name="Culture" type="xs:language" minOccurs="0"/>
      <xs:element name="EffectiveRights" type="t:EffectiveRightsType" minOccurs="0"/>
      <xs:element name="LastModifiedName" type="xs:string" minOccurs="0"/>
      <xs:element name="LastModifiedTime" type="xs:dateTime" minOccurs="0"/>
      <xs:element name="IsAssociated" type="xs:boolean" minOccurs="0"/>
      <xs:element name="WebClientReadFormQueryString" type="xs:string" minOccurs="0"/>
      <xs:element name="WebClientEditFormQueryString" type="xs:string" minOccurs="0"/>
      <xs:element name="ConversationId" type="t:ItemIdType" minOccurs="0"/>
      <xs:element name="UniqueBody" type="t:BodyType" minOccurs="0"/>
      <xs:element name="Flag" type="t:FlagType" minOccurs="0"/>
      <xs:element name="StoreEntryId" type="xs:base64Binary" minOccurs="0"/>
      <xs:element name="InstanceKey" type="xs:base64Binary" minOccurs="0"/>
      <xs:element name="NormalizedBody" type="t:BodyType" minOccurs="0"/>
      <xs:element name="EntityExtractionResult" type="t:EntityExtractionResultType"
  minOccurs="0" />
      <xs:element name="PolicyTag" type="t:RetentionTagType" minOccurs="0"/>
      <xs:element name="ArchiveTag" type="t:RetentionTagType" minOccurs="0"/>
      <xs:element name="RetentionDate" type="xs:dateTime" minOccurs="0"/>
      <xs:element name="Preview" type="xs:string" minOccurs="0"/>
          <xs:element name="RightsManagementLicenseData"
  type="t:RightsManagementLicenseDataType" minOccurs="0" />
      <xs:element name="NextPredictedAction" type="t:PredictedMessageActionType"
  minOccurs="0" />
      <xs:element name="GroupingAction" type="t:PredictedMessageActionType" minOccurs="0"/>
      <xs:element name="BlockStatus" type="xs:boolean" minOccurs="0" />
      <xs:element name="HasBlockedImages" type="xs:boolean" minOccurs="0" />
      <xs:element name="TextBody" type="t:BodyType" minOccurs="0"/>
      <xs:element name="IconIndex" type="t:IconIndexType" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="MimeContentType">
    <xs:simpleContent>
      <xs:extension base="xs:string">
        <xs:attribute name="CharacterSet" type="xs:string" use="optional"/>
```

```
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfBaseItemIdsType">
    <xs:choice maxOccurs="unbounded">
      <xs:element name="ItemId" type="t:ItemIdType"/>
      <xs:element name="OccurrenceItemId" type="t:OccurrenceItemIdType"/>
      <xs:element name="RecurringMasterItemId" type="t:RecurringMasterItemIdType"/>
      <xs:element name="RecurringMasterItemIdRanges"
 type="t:RecurringMasterItemIdRangesType"/>
    </xs:choice>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfInternetHeadersType">
    <xs:sequence>
      <xs:element name="InternetMessageHeader" type="t:InternetHeaderType"
 maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfItemChangeDescriptionsType">
    <xs:choice maxOccurs="unbounded">
      <xs:element name="AppendToItemField" type="t:AppendToItemFieldType"/>
      <xs:element name="SetItemField" type="t:SetItemFieldType"/>
      <xs:element name="DeleteItemField" type="t:DeleteItemFieldType"/>
    </xs:choice>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfItemChangesType">
    <xs:sequence>
      <xs:element name="ItemChange" type="t:ItemChangeType" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfResponseObjectsType">
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:element name="AcceptItem" type="t:AcceptItemType"/>
      <xs:element name="TentativelyAcceptItem" type="t:TentativelyAcceptItemType"/>
      <xs:element name="DeclineItem" type="t:DeclineItemType"/>
      <xs:element name="ReplyToItem" type="t:ReplyToItemType"/>
      <xs:element name="ForwardItem" type="t:ForwardItemType"/>
      <xs:element name="ReplyAllToItem" type="t:ReplyAllToItemType"/>
      <xs:element name="CancelCalendarItem" type="t:CancelCalendarItemType"/>
      <xs:element name="RemoveItem" type="t:RemoveItemType"/>
      <xs:element name="SuppressReadReceipt" type="t:SuppressReadReceiptType"/>
      <xs:element name="PostReplyItem" type="t:PostReplyItemType"/>
      <xs:element name="AcceptSharingInvitation" type="t:AcceptSharingInvitationType"/>
    </xs:choice>
  </xs:complexType>
  <xs:complexType name="OccurrenceItemIdType">
    <xs:complexContent>
      <xs:extension base="t:BaseItemIdType">
        <xs:attribute name="RecurringMasterId" type="t:DerivedItemIdType" use="required"/>
        <xs:attribute name="ChangeKey" type="xs:string" use="optional"/>
        <xs:attribute name="InstanceIndex" type="xs:int" use="required"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="OccurrencesRangeType">
    <xs:attribute name="Start" type="xs:dateTime" use="optional"/>
    <xs:attribute name="End" type="xs:dateTime" use="optional"/>
    <xs:attribute name="Count" type="xs:int" use="optional"/>
    <xs:attribute name="CompareOriginalStartTime" type="xs:boolean" use="optional"/>
```

```
        </xs:complexType>

        <xs:complexType name="RecurringMasterItemIdType">
          <xs:complexContent>
            <xs:extension base="t:BaseItemIdType">
              <xs:attribute name="OccurrenceId" type="t:DerivedItemIdType" use="required"/>
              <xs:attribute name="ChangeKey" type="xs:string" use="optional"/>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="RecurringMasterItemIdRangesType">
          <xs:complexContent>
            <xs:extension base="t:ItemIdType">
              <xs:sequence>
                <xs:element name="Ranges" type="t:ArrayOfOccurrenceRangesType" minOccurs="0"/>
              </xs:sequence>
            </xs:extension>
          </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="ReferenceItemResponseType">
          <xs:complexContent>
            <xs:restriction base="t:ResponseObjectType">
              <xs:sequence>
                <xs:element name="ReferenceItemId" type="t:ItemIdType" minOccurs="0"/>
              </xs:sequence>
              <xs:attribute name="ObjectName" type="xs:string" use="prohibited"/>
            </xs:restriction>
          </xs:complexContent>
        </xs:complexType>
        <xs:simpleType name="ReminderMinutesBeforeStartType">
          <xs:union>
            <xs:simpleType id="ReminderMinutesBeforeStartType">
              <xs:restriction base="xs:int">
                <xs:minInclusive value="0"/>
                <xs:maxInclusive value="2629800"/>
              </xs:restriction>
            </xs:simpleType>
            <xs:simpleType id="ReminderMinutesBeforeStartMarkerType">
              <xs:restriction base="xs:int">
                <xs:minInclusive value="1525252321"/>
                <xs:maxInclusive value="1525252321"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:union>
        </xs:simpleType>
        <xs:complexType name="SetItemFieldType">
          <xs:complexContent>
            <xs:extension base="t:ItemChangeDescriptionType">
              <xs:choice>
                <xs:element name="Item" type="t:ItemType"/>
                <xs:element name="Message" type="t:MessageType"/>
                <xs:element name="CalendarItem" type="t:CalendarItemType"/>
                <xs:element name="Contact" type="t:ContactItemType"/>
                <xs:element name="DistributionList" type="t:DistributionListType"/>
                <xs:element name="MeetingMessage" type="t:MeetingMessageType"/>
                <xs:element name="MeetingRequest" type="t:MeetingRequestMessageType"/>
                <xs:element name="MeetingResponse" type="t:MeetingResponseMessageType"/>
                <xs:element name="MeetingCancellation" type="t:MeetingCancellationMessageType"/>
                <xs:element name="Task" type="t:TaskType"/>
```

```xml
                <xs:element name="PostItem" type="t:PostItemType"/>
            </xs:choice>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="SmartResponseBaseType">
      <xs:complexContent>
         <xs:restriction base="t:ResponseObjectType">
            <xs:sequence>
               <xs:element name="Subject" type="xs:string" minOccurs="0"/>
               <xs:element name="Body" type="t:BodyType" minOccurs="0"/>
               <xs:element name="ToRecipients" type="t:ArrayOfRecipientsType" minOccurs="0"/>
               <xs:element name="CcRecipients" type="t:ArrayOfRecipientsType" minOccurs="0"/>
               <xs:element name="BccRecipients" type="t:ArrayOfRecipientsType" minOccurs="0"/>
               <xs:element name="IsReadReceiptRequested" type="xs:boolean" minOccurs="0"/>
               <xs:element name="IsDeliveryReceiptRequested" type="xs:boolean" minOccurs="0"/>
               <xs:element name="From" type="t:SingleRecipientType" minOccurs="0"/>
               <xs:element name="ReferenceItemId" type="t:ItemIdType" minOccurs="0"/>
            </xs:sequence>
            <xs:attribute name="ObjectName" type="xs:string" use="prohibited"/>
         </xs:restriction>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="SmartResponseType">
      <xs:complexContent>
         <xs:extension base="t:SmartResponseBaseType">
            <xs:sequence>
               <xs:element name="NewBodyContent" type="t:BodyType" minOccurs="0"/>
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="UrlEntityType">
      <xs:complexContent>
         <xs:extension base="t:EntityType">
            <xs:sequence>
               <xs:element name="Url" type="xs:string" minOccurs="0"/>
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <!-- Begin Entity Extraction -->
   <xs:complexType name="ArrayOfAddressEntitiesType">
      <xs:sequence>
         <xs:element name="AddressEntity" type="t:AddressEntityType"
               minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="AddressEntityType">
      <xs:complexContent>
         <xs:extension base="t:EntityType">
            <xs:sequence>
               <xs:element name="Address" type="xs:string" minOccurs="0" />
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="ArrayOfEmailAddressEntitiesType">
      <xs:sequence>
```

```xml
          <xs:element name="EmailAddressEntity" type="t:EmailAddressEntityType"
                  minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="EmailAddressEntityType">
      <xs:complexContent>
         <xs:extension base="t:EntityType">
            <xs:sequence>
               <xs:element name="EmailAddress" type="xs:string" minOccurs="0" />
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="ArrayOfAddressesType">
      <xs:sequence>
         <xs:element name="Address" type="xs:string" minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="ArrayOfUrlEntitiesType">
      <xs:sequence>
         <xs:element name="UrlEntity" type="t:UrlEntityType"
                  minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="ArrayOfMeetingSuggestionsType">
      <xs:sequence>
         <xs:element name="MeetingSuggestion" type="t:MeetingSuggestionType"
 maxOccurs="unbounded" />
      </xs:sequence>
   </xs:complexType>

   <xs:complexType name="MeetingSuggestionType">
      <xs:sequence>
         <xs:element name="Attendees" type="t:ArrayOfEmailUsersType" minOccurs="0" maxOccurs="1"
 />
         <xs:element name="Location" type="xs:string" minOccurs="0" />
         <xs:element name="Subject" type="xs:string" minOccurs="0" />
         <xs:element name="MeetingString" type="xs:string" minOccurs="0" />
         <xs:element name="StartTime" type="xs:dateTime" minOccurs="0" />
         <xs:element name="EndTime" type="xs:dateTime" minOccurs="0" />
      </xs:sequence>
   </xs:complexType>

   <xs:complexType name="ArrayOfTaskSuggestionsType">
      <xs:sequence>
         <xs:element name="TaskSuggestion" type="t:TaskSuggestionType" maxOccurs="unbounded" />
      </xs:sequence>
   </xs:complexType>

   <xs:complexType name="ArrayOfContactsType">
      <xs:sequence>
         <xs:element name="Contact" type="t:ContactType" minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>

   <xs:complexType name="ContactType">
      <xs:sequence>
         <xs:element name="PersonName" type="xs:string" minOccurs="0" />
         <xs:element name="BusinessName" type="xs:string" minOccurs="0" />
```

```
      <xs:element name="PhoneNumbers" type="t:ArrayOfPhonesType" minOccurs="0" maxOccurs="1"
/>
      <xs:element name="Urls" type="t:ArrayOfUrlsType" minOccurs="0" maxOccurs="1" />
      <xs:element name="EmailAddresses" type="t:ArrayOfExtractedEmailAddresses" minOccurs="0"
maxOccurs="1" />
      <xs:element name="Addresses" type="t:ArrayOfAddressesType" minOccurs="0" maxOccurs="1"
/>
      <xs:element name="ContactString" type="xs:string" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="ArrayOfUrlsType">
    <xs:sequence>
      <xs:element name="Url" type="xs:string" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="ArrayOfPhonesType">
    <xs:sequence>
      <xs:element name="Phone" type="t:PhoneType" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="PhoneType">
    <xs:sequence>
      <xs:element name="OriginalPhoneString" type="xs:string" minOccurs="0" />
      <xs:element name="PhoneString" type="xs:string" minOccurs="0" />
      <xs:element name="Type" type="xs:string" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfPhoneEntitiesType">
    <xs:sequence>
      <xs:element name="Phone" type="t:PhoneEntityType" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="PhoneEntityType">
    <xs:complexContent>
      <xs:extension base="t:EntityType">
        <xs:sequence>
          <xs:element name="OriginalPhoneString type="xs:string" minOccurs="0"/>
          <xs:element name="PhoneString" type="xs:string" minOccurs="0"/>
          <xs:element name="Type" type="xs:string" minOccurs="0"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:simpleType name="EmailPositionType">
   <xs:restriction base="xs:string">
      <xs:enumeration value="LatestReply"/>
      <xs:enumeration value="Other"/>
      <xs:enumeration value="Subject"/>
      <xs:enumeration value="Signature"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:complexType name="ArrayOfEmailUsersType">
    <xs:sequence>
      <xs:element name="EmailUser" type="t:EmailUserType" minOccurs="0" maxOccurs="unbounded"
/>
    </xs:sequence>
```

```
        </xs:complexType>

    <xs:complexType name="EmailUserType">
      <xs:sequence>
        <xs:element name="Name" type="xs:string" minOccurs="0" />
        <xs:element name="UserId" type="xs:string" minOccurs="0" />
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="TaskSuggestionType">
      <xs:sequence>
        <xs:element name="TaskString" type="xs:string" minOccurs="0" />
        <xs:element name="Assignees" type="t:ArrayOfEmailUsersType" minOccurs="0" maxOccurs="1"
 />
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="ArrayOfExtractedEmailAddresses">
      <xs:sequence>
        <xs:element name="EmailAddress" type="xs:string" minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
    </xs:complexType>

    <xs:complexType name="EntityExtractionResultType">
      <xs:sequence>
        <xs:element name="Addresses" type="t:ArrayOfAddressEntitiesType" minOccurs="0"
maxOccurs="1"/>
        <xs:element name="MeetingSuggestions" type="t:ArrayOfMeetingSuggestionsType"
minOccurs="0" maxOccurs="1"/>
        <xs:element name="TaskSuggestions" type="t:ArrayOfTaskSuggestionsType" minOccurs="0"
maxOccurs="1"/>
        <xs:element name="EmailAddresses" type="t:ArrayOfEmailAddressEntitiesType"
minOccurs="0" maxOccurs="1"/>
        <xs:element name="Contacts" type="t:ArrayOfContactsType" minOccurs="0" maxOccurs="1"/>
        <xs:element name="Urls" type="t:ArrayOfUrlEntitiesType" minOccurs="0" maxOccurs="1"/>
        <xs:element name="PhoneNumbers" type="t:ArrayOfPhoneEntitiesType" minOccurs="0"
maxOccurs="1"/>
      </xs:sequence>
    </xs:complexType>

    <!-- End Entity Extraction -->

    <xs:complexType name="RightsManagementLicenseDataType">
    <xs:sequence>
        <xs:element name="RightsManagedMessageDecryptionStatus" type="xs:int" minOccurs="0" />
        <xs:element name="RmsTemplateId" type="xs:string" minOccurs="0" />
        <xs:element name="TemplateName" type="xs:string" minOccurs="0" />
        <xs:element name="TemplateDescription" type="xs:string" minOccurs="0" />
        <xs:element name="EditAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="ReplyAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="ReplyAllAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="ForwardAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="ModifyRecipientsAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="ExtractAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="PrintAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="ExportAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="ProgrammaticAccessAllowed" type="xs:boolean" minOccurs="0" />
        <xs:element name="IsOwner" type="xs:boolean" minOccurs="0" />
        <xs:element name="ContentOwner" type="xs:string" minOccurs="0" />
```

```
            <xs:element name="ContentExpiryDate" type="xs:string" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:schema>
```

8   Appendix C: 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 2007

- Microsoft Exchange Server 2010

- Microsoft Exchange Server 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 2.2.3.2: Exchange 2007 and Exchange 2010 do not support the **ManagementRole** element.

<2> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfOccurrenceRangesType** complex type.

<3> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **FlagType** complex type.

<4> Section 2.2.4: Exchange 2007 SP1, Exchange 2010, and Exchange 2013 do not support the **ItemType** complex type.

<5> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **OccurrencesRangeType** complex type.

<6> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **RecurringMasterItemIdRangesType** complex type.

<7> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfAddressesType** complex type.

<8> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfMeetingSuggestionsType** complex type.

<9> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **MeetingSuggestionType** complex type.

<10> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfTaskSuggestionsType** complex type.

<11> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfContactsType** complex type.

<12> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ContactType** complex type.

<13> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfUrlsType** complex type.

<14> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfPhonesType** complex type.

<15> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **PhoneType** complex type.

<16> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfEmailUsersType** complex type.

<17> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **EmailUserType** complex type.

<18> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the T**askSuggestionType** complex type.

<19> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfExtractedEmailAddresses** complex type.

<20> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **EntityExtractionResultType** complex type.

<21> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **RightsManagementLicenseDataType** complex type.

<22> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **EntityType** complex type.

<23> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfAddressEntitiesType** complex type.

<24> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **AddressEntityType** complex type.

<25> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfEmailAddressEntitiesType** complex type.

<26> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **EmailAddressEntityType** complex type.

<27> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfPhoneEntitiesType** complex type.

<28> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **PhoneEntityType** complex type.

<29> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **ArrayOfUrlEntitiesType** complex type.

<30> Section 2.2.4: Exchange 2007 and Exchange 2010 do not support the **UrlEntityType** complex type.

<31> Section 2.2.4.1: Exchange 2007 and Exchange 2010 do not support the **ArrayOfOccurrenceRangesType** complex type.

<32> Section 2.2.4.2: Exchange 2007 and Exchange 2010 do not support the **FlagType** complex type.

<33> Section 2.2.4.3: Exchange 2007, Exchange 2010, and Exchange 2010 SP1 do not include the **ReturnNewItemIds** element. The **ReturnNewItemIds** element was introduced in Exchange 2010 SP2.

<34> Section 2.2.4.8: Exchange 2007 SP1, Exchange 2010, and Exchange 2013 do not support the **ItemType** complex type.

<35> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **Flag** element.

<36> Section 2.2.4.8: Exchange 2007, Exchange 2010 and Exchange 2010 SP1 do not support the **StoreEntryId** element.

<37> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **InstanceKey** element.

<38> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **NormalizedBody** element.

<39> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **EntityExtractionResult** element.

<40> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **PolicyTag** element.

<41> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **ArchiveTag** element.

<42> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **RetentionDate** element.

<43> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **Preview** element.

<44> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **RightsManagementLicenseData** element.

<45> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **NextPredictedAction** element.

<46> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **GroupingAction** element.

<47> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **BlockStatus** element.

<48> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **HasBlockedImages** element.

<49> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **TextBody** element

<50> Section 2.2.4.8: Exchange 2007 and Exchange 2010 do not support the **IconIndex** element.

<51> Section 2.2.4.9: Exchange 2007 and Exchange 2010 do not support the **ManagementRoleType** complex type.

<52> Section 2.2.4.11: Exchange 2007 and Exchange 2010 do not support the **RecurringMasterItemIdRanges** element.

<53> Section 2.2.4.14: Exchange 2007 and Exchange 2010 do not support the **NonEmptyArrayOfRoleType** complex type.

<54> Section 2.2.4.16: Exchange 2007 and Exchange 2010 do not support the **OccurrencesRangeType** complex type.

<55> Section 2.2.4.18: Exchange 2007 and Exchange 2010 do not support the **RecurringMasterItemIdRangesType** complex type.

<56> Section 2.2.4.23: Exchange 2007 and Exchange 2010 do not support the **ArrayOfAddressesType** complex type.

<57> Section 2.2.4.24: Exchange 2007 and Exchange 2010 do not support the **ArrayOfMeetingSuggestionsType** complex type.

<58> Section 2.2.4.25: Exchange 2007 and Exchange 2010 do not support the **MeetingSuggestionType** complex type.

<59> Section 2.2.4.26: Exchange 2007 and Exchange 2010 do not support the **ArrayOfTaskSuggestionsType** complex type.

<60> Section 2.2.4.27: Exchange 2007 and Exchange 2010 do not support the **ArrayOfContactsType** complex type.

<61> Section 2.2.4.28: Exchange 2007 and Exchange 2010 do not support the **ContactType** complex type.

<62> Section 2.2.4.29: Exchange 2007 and Exchange 2010 do not support the **ArrayOfUrlsType** complex type.

<63> Section 2.2.4.30: Exchange 2007 and Exchange 2010 do not support the **ArrayOfPhonesType** complex type.

<64> Section 2.2.4.31: Exchange 2007 and Exchange 2010 do not support the **PhoneType** complex type.

<65> Section 2.2.4.32: Exchange 2007 and Exchange 2010 do not support the **ArrayOfEmailUsersType** complex type.

<66> Section 2.2.4.33: Exchange 2007 and Exchange 2010 do not support the **EmailUserType** complex type.

<67> Section 2.2.4.34: Exchange 2007 and Exchange 2010 do not support the **TaskSuggestionType** complex type.

<68> Section 2.2.4.35: Exchange 2007 and Exchange 2010 do not support the **ArrayOfExtractedEmailAddresses** complex type.

<69> Section 2.2.4.36: Exchange 2007 and Exchange 2010 do not support the **EntityExtractionResultType** complex type.

<70> Section 2.2.4.37: Exchange 2007 and Exchange 2010 do not support the **RightsManagementLicenseDataType** complex type.

<71> Section 2.2.4.38: Exchange 2007 and Exchange 2010 do not use the **EntityType** complex type.

<72> Section 2.2.4.39: Exchange 2007 and Exchange 2010 do not use the **ArrayOfAddressEntityType** complex type.

<73> Section 2.2.4.40: Exchange 2007 and Exchange 2010 do not use the **AddressEntityType** complex type.

<74> Section 2.2.4.41: Exchange 2007 and Exchange 2010 do not use the **ArrayOfEmailAddressEntitiesType** complex type.

<75> Section 2.2.4.42: Exchange 2007 and Exchange 2010 do not use the **EmailAddressEntityType** complex type.

<76> Section 2.2.4.43: Exchange 2007 and Exchange 2010 do not use the **ArrayOfPhoneEntitiesType** complex type.

<77> Section 2.2.4.44: Exchange 2007 and Exchange 2010 do not use the **PhoneEntityType** complex type.

<78> Section 2.2.4.45: Exchange 2007 and Exchange 2010 do not use the **ArrayOfUrlEntitiesType** complex type.

<79> Section 2.2.4.46: Exchange 2007 and Exchange 2010 do not use the **UrlEntityType** complex type.

<80> Section 3.1.4: Exchange 2007 and Exchange 2010 do not use the **MarkAsJunk** operation.

<81> Section 3.1.4.4.1.1: Exchange 2007, Exchange 2010 and Exchange 2010 SP1 do not support the **DateTimePrecision** SOAP header. The **DateTimePrecision** SOAP header was introduced in Exchange 2010 SP2.

<82> Section 3.1.4.4.1.1: Exchange 2007 and Exchange 2010 do not support the **ManagementRole** SOAP header. The **ManagementRole** SOAP header was introduced in Exchange 2013.

<83> Section 3.1.4.5: Exchange 2007 and Exchange 2010 do not support the **MarkAllItemsAsRead** operation.

<84> Section 3.1.4.6: Exchange 2007 and Exchange 2010 do not use the **MarkAsJunk** operation.

9   Change Tracking

This section identifies changes that were made to the [MS-OXWSCORE] protocol document between the October 2012 and February 2013 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.

- An extensive rewrite, addition, or deletion of major portions of content.

- The removal of a document from the documentation set.

- Changes made for template compliance.

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 language and 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 or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

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.

- New content added for template compliance.

- Content updated for template compliance.

- Content removed for template compliance.

- 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 protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
2.2.4 Complex Types	Described the support that Exchange 2007 SP1, Exchange 2010, and Exchange 2013 give for the ItemType complex type.	Y	New product behavior note added.
2.2.4.8 t:ItemType Complex Type	Described support that Exchange 2007 SP1, Exchange 2010, and Exchange 2013 give for the ItemType complex type.	Y	New product behavior note added.
2.2.4.8 t:ItemType Complex Type	Specified that the Subject element contains the organizer's name when the item is a room mailbox.	N	Content updated.

Release: February 11, 2013

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