

[MS-OXWSCORE]:

Core Items Web Service Protocol

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Revision Summary

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1 Introduction

The Core Items Web Service Protocol enables clients to create, get, update, delete, move, send, or copy items on the server.

Sections 1.5, 1.8, 1.9, 2, and 3 of this specification are normative. All other sections and examples in this specification are informative.

1.1 Glossary

This document uses the following terms:

base64 encoding: A binary-to-text encoding scheme whereby an arbitrary sequence of bytes is converted to a sequence of printable ASCII characters, as described in [\[RFC4648\]](#).

blind carbon copy (Bcc) recipient: An addressee on a Message object that is not visible to recipients of the Message object.

carbon copy (Cc) recipient: An address on a Message object that is visible to recipients of the Message object but is not necessarily expected to take any action.

delivery receipt: A report message that is generated and sent by a client or server to the sender of a message or another designated recipient when an email message is received by an intended recipient.

Drafts folder: A special folder that is the default location for Message objects that have been saved but not sent.

endpoint: A communication port that is exposed by an application server for a specific shared service and to which messages can be addressed.

Hypertext Transfer Protocol (HTTP): An application-level protocol for distributed, collaborative, hypermedia information systems (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Hypertext Transfer Protocol Secure (HTTPS): An extension of HTTP that securely encrypts and decrypts web page requests. In some older protocols, "Hypertext Transfer Protocol over Secure Sockets Layer" is still used (Secure Sockets Layer has been deprecated). For more information, see [\[SSL3\]](#) and [\[RFC5246\]](#).

Inbox folder: A special folder that is the default location for Message objects received by a user or resource.

Inter-Personal Mail (IPM): Typical user messaging items, such as email and calendar items.

Junk Email folder: A special folder that is the default location for Message objects that are determined to be junk email by a Junk Email rule.

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

meeting: An event with attendees.

message class: A property that loosely defines the type of a message, contact, or other Personal Information Manager (PIM) object in a mailbox.

Messaging Application Programming Interface (MAPI): A messaging architecture that enables multiple applications to interact with multiple messaging systems across a variety of hardware platforms.

MIME message: A message that is as described in [\[RFC2045\]](#), [\[RFC2046\]](#), and [\[RFC2047\]](#).

Multipurpose Internet Mail Extensions (MIME): A set of extensions that redefines and expands support for various types of content in email messages, as described in [\[RFC2045\]](#), [\[RFC2046\]](#), and [\[RFC2047\]](#).

Outbox folder: A special folder that contains Message objects that are submitted to be sent.

read receipt: An email message that is sent to the sender of a message to indicate that a message recipient received the message.

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

SOAP: A lightweight protocol for exchanging structured information in a decentralized, distributed environment. **SOAP** uses XML technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation-specific semantics. SOAP 1.2 supersedes SOAP 1.1. See [\[SOAP1.2-1/2003\]](#).

SOAP action: The HTTP request header field used to indicate the intent of the **SOAP** request, using a URI value. See [\[SOAP1.1\]](#) section 6.1.1 for more information.

SOAP body: A container for the payload data being delivered by a **SOAP message** to its recipient. See [\[SOAP1.2-1/2007\]](#) section 5.3 for more information.

SOAP header: A mechanism for implementing extensions to a **SOAP message** in a decentralized manner without prior agreement between the communicating parties. See [\[SOAP1.2-1/2007\]](#) section 5.2 for more information.

SOAP message: An XML document consisting of a mandatory SOAP envelope, an optional **SOAP header**, and a mandatory **SOAP body**. See [\[SOAP1.2-1/2007\]](#) section 5 for more information.

To recipient: See primary recipient.

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

UTF-8: A byte-oriented standard for encoding Unicode characters, defined in the Unicode standard. Unless specified otherwise, this term refers to the UTF-8 encoding form specified in [\[UNICODE5.0.0/2007\]](#) section 3.9.

web service: A unit of application logic that provides data and services to other applications and can be called by using standard Internet transport protocols such as **HTTP**, Simple Mail Transfer Protocol (SMTP), or File Transfer Protocol (FTP). Web services can perform functions that range from simple requests to complicated business processes.

Web Services Description Language (WSDL): An XML format for describing network services as a set of endpoints that operate on messages that contain either document-oriented or procedure-oriented information. The operations and messages are described abstractly and are bound to a concrete network protocol and message format in order to define an endpoint. Related concrete endpoints are combined into abstract endpoints, which describe a network service. WSDL is extensible, which allows the description of endpoints and their messages regardless of the message formats or network protocols that are used.

WSDL message: An abstract, typed definition of the data that is communicated during a **WSDL operation** [\[WSDL\]](#). Also, an element that describes the data being exchanged between web service providers and clients.

WSDL operation: A single action or function of a web service. The execution of a WSDL operation typically requires the exchange of messages between the service requestor and the service provider.

WSDL port type: A named set of logically-related, abstract **Web Services Description Language (WSDL)** operations and messages.

XML namespace: A collection of names that is used to identify elements, types, and attributes in XML documents identified in a URI reference [\[RFC3986\]](#). A combination of XML namespace and local name allows XML documents to use elements, types, and attributes that have the same names but come from different sources. For more information, see [\[XMLNS-2ED\]](#).

XML schema: A description of a type of XML document that is typically expressed in terms of constraints on the structure and content of documents of that type, in addition to the basic syntax constraints that are imposed by XML itself. An XML schema provides a view of a document type at a relatively high level of abstraction.

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

1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the [Errata](#).

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information.

[MS-OXWSATT] Microsoft Corporation, "[Attachment Handling Web Service Protocol](#)".

[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, <https://www.rfc-editor.org/rfc/rfc2119.html>

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

[RFC3066] Alvestrand, H., "Tags for the Identification of Languages", BCP 47, 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", W3C Note, May 2000, <https://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, <https://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, <https://www.w3.org/TR/2009/REC-xml-names-20091208/>

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

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

1.2.2 Informative References

[MS-OXDCLI] Microsoft Corporation, "[Autodiscover Publishing and Lookup Protocol](#)".

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

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

[MS-OXWSMSHR] Microsoft Corporation, "[Folder Sharing Web Service Protocol](#)".

[MS-OXWSSRCH] Microsoft Corporation, "[Mailbox Search Web Service Protocol](#)".

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, <https://www.rfc-editor.org/info/rfc2616>

[RFC2822] Resnick, P., Ed., "Internet Message Format", RFC 2822, April 2001, <http://www.ietf.org/rfc/rfc2822.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, send, 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 [\[MS-OXDCLI\]](#), to identify the target **endpoint** to use for each operation.

This protocol can use the item identifiers returned by the Mailbox Search Web Service Protocol, as described in [\[MS-OXWSSRCH\]](#), to manipulate items.

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.

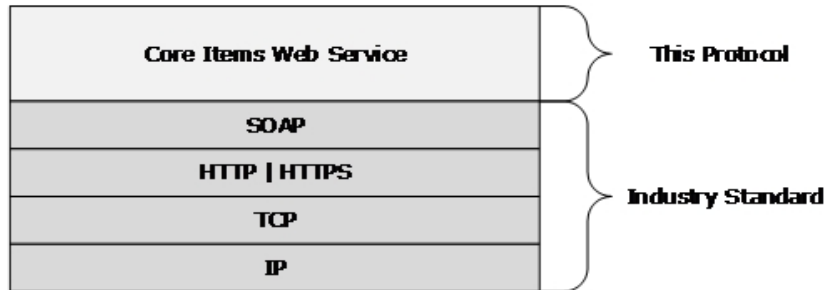


Figure 1: This protocol in relation to other protocols

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 [\[MS-OXWSTASK\]](#)
- Folder Sharing Web Service Protocol, as described in [\[MS-OXWSMSHR\]](#)

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

1.5 Prerequisites/Preconditions

The **endpoint 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 [\[MS-OXDCLI\]](#), 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 is identified in the HTTP Web requests that target this protocol.

1.6 Applicability Statement

This protocol is applicable to environments that create, get, update, delete, move, send, or copy 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 described 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 2.2.3.9. The version of the server responding to the request is identified by using the **t:ServerVersionInfo** element, as described in [\[MS-OXWSCDATA\]](#) section 2.2.3.10.
- **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 described 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. Protocol servers **MUST** support SOAP over HTTP. The protocol servers **SHOULD** additionally support 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 | |
| (none) | http://schemas.microsoft.com/exchange/services/2006/messages | |
| s | http://www.w3.org/2001/XMLSchema | [XMLSCHEMA1] |
| wsdl | http://schemas.xmlsoap.org/wsdl/ | [WSDL] |
| t | http://schemas.microsoft.com/exchange/services/2006/types | |
| m | http://schemas.microsoft.com/exchange/services/2006/messages | |
| xs | http://www.w3.org/2001/XMLSchema | [XMLSCHEMA1] |

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 |
|-----------------------|---|
| ManagementRole | Specifies the roles the user or application wants to use. |

2.2.3.1 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 |
|--|--|
| AddressEntityType | Specifies an address entity. <2> |
| ArrayOfAddressEntitiesType | Specifies an array of address entities. <3> |
| ArrayOfAddressesType | Specifies an array of addresses. <4> |
| ArrayOfContactsType | Specifies an array of contacts. <5> |
| ArrayOfEmailAddressEntitiesType | Specifies an array of email address entities. <6> |
| ArrayOfEmailUsersType | Specifies an array of email users. <7> |
| ArrayOfExtractedEmailAddresses | Specifies an array of email addresses. <8> |
| ArrayOfItemIdsType | Specifies an array of item ids. |
| ArrayOfMeetingSuggestionsType | Specifies an array of meeting suggestions. <9> |
| ArrayOfPhoneEntitiesType | Specifies an array of phone entities. <10> |
| ArrayOfPhonesType | Specifies an array of phone numbers. <11> |
| ArrayOfOccurrenceRangesType | Specifies an array of occurrence ranges. <12> |
| ArrayOfTaskSuggestionsType | Specifies an array of task suggestions. <13> |
| ArrayOfUrlEntitiesType | Specifies an array of URL entities. <14> |
| ArrayOfUrlsType | Specifies an array of URLs. <15> |
| 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). |

| Complex type | Description |
|---|--|
| ContactType | Specifies the type of a contact. .<16> |
| EmailAddressEntityType | Specifies an email address entity. .<17> |
| EmailUserType | Specifies an email user. .<18> |
| EntityExtractionResultType | Specifies the result of an entity extraction. .<19> |
| EntityType | Specifies a single entity. .<20> |
| FlagType | Specifies a flag indicating status, start date, due date, or completion date for an item. .<21> |
| ItemType | Specifies a generic item in the server data store. |
| ItemIDType | Specifies the item identifier (ID) of an item. |
| ManagementRoleType | Specifies the roles that are associated with a user or application. |
| MeetingSuggestionType | Specifies a meeting suggestion. .<22> |
| MimeContentType | Specifies the native MIME stream of an object that is 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. .<23> |
| PhoneType | Specifies a phone number and its type. .<24> |
| PhoneEntityType | Specifies a phone entity. .<25> |
| RecurringMasterItemIdType | Specifies a recurring master item by identifying the identifiers of one of its related occurrence items. A recurring master item is the item that anchors the recurring series and holds all recurrence pattern and recurrence range information. Each recurring series has one recurring master item. |
| RecurringMasterItemIdRangesType | Specifies a union of all occurrences of a recurring master item, which fit into at least one of the specified ranges. .<26> |
| ReferenceItemResponseType | Specifies a referenced item for a response object. |
| RightsManagementLicenseDataType | Specifies information about the rights management license. .<27> |
| SendItemType | Specifies a request to send a message. |
| SendItemResponseType | Specifies a response to a call to the SendItem operation [MS-OXWSMSG] . |
| TaskSuggestionType | Specifies a task suggestion. .<28> |
| UrlEntityType | Specifies a URL entity. .<29> |

2.2.4.1 t:AddressEntityType Complex Type

The **AddressEntityType** complex type specifies a street address. This type extends the **EntityType** complex type, as specified by section [2.2.4.22.<30>](#)

```
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.

2.2.4.2 t:ArrayOfAddressEntitiesType Complex Type

The **ArrayOfAddressEntitiesType** complex type represents an array of address entities.[<31>](#)

```
<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 [2.2.4.1](#), that specifies an address.

2.2.4.3 t:ArrayOfAddressesType Complex Type

The **ArrayOfAddressesType** complex type specifies an array of addresses.[<32>](#)

```
<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.

2.2.4.4 t:ArrayOfContactsType Complex Type

The **ArrayOfContactsType** complex type specifies an array of contacts.[<33>](#)

```
<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 [2.2.4.18](#), that represents a single contact.

2.2.4.5 t:ArrayOfEmailAddressEntitiesType Complex Type

The **ArrayOfEmailAddressEntitiesType** complex type specifies an array of email addresses. [<34>](#)

```
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 [2.2.4.19](#), that represents an email address.

2.2.4.6 t:ArrayOfEmailUsersType Complex Type

The **ArrayOfEmailUsersType** complex type specifies an array of email users. [<35>](#)

```
<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 [2.2.4.20](#), that represents a single email user.

2.2.4.7 t:ArrayOfExtractedEmailAddresses Complex Type

The **ArrayOfExtractedEmailAddresses** complex type specifies an array of email addresses. [<36>](#)

```
<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.

2.2.4.8 t:ArrayOfItemIdsType Complex Type

The **ArrayOfItemIdsType** complex type specifies an array of item ids. [<37>](#)

```
<xs:complexType name="ArrayOfItemIdsType">
  <xs:sequence>
    <xs:element name="ItemId" type="t:ItemIdType" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
```

</xs:complexType>

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

| Element name | Type | Description |
|---------------|---|----------------------------|
| ItemId | t:ItemIdType (section 2.2.4.25) | The identifier of an item. |

2.2.4.9 t:ArrayOfMeetingSuggestionsType Complex Type

The **ArrayOfMeetingSuggestionsType** complex type specifies an array of meeting suggestions.[<38>](#)

```
<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 [2.2.4.27](#), that represents a single meeting suggestion.

2.2.4.10 t:ArrayOfPhoneEntitiesType Complex Type

The **ArrayOfPhoneEntitiesType** complex type specifies an array of phone entities.[<39>](#)

```
<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 [2.2.4.38](#), that specifies a phone entity.

2.2.4.11 t:ArrayOfPhonesType Complex Type

The **ArrayOfPhonesType** complex type specifies an array of phone numbers.[<40>](#)

```
<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 [2.2.4.37](#), that represents a single phone number.

2.2.4.12 t:ArrayOfOccurrenceRangesType Complex Type

The **ArrayOfOccurrenceRangesType** complex type specifies an array of occurrence ranges.[<41>](#)

```
<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 [2.2.4.36](#), that represents a single occurrence range.

2.2.4.13 t:ArrayOfTaskSuggestionsType Complex Type

The **ArrayOfTaskSuggestionsType** complex type specifies an array of task suggestions. [<42>](#)

```
<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 [2.2.4.46](#), that represents a single task suggestion.

2.2.4.14 t:ArrayOfUrlEntitiesType Complex Type

The **ArrayOfUrlEntitiesType** complex type specifies an array of **URL** entities. [<43>](#)

```
<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 [2.2.4.48](#), that specifies a URL entity.

2.2.4.15 t:ArrayOfUrlsType Complex Type

The **ArrayOfUrlsType** complex type specifies an array of **URLs**. [<44>](#)

```
<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.

2.2.4.16 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 2.2.4.17).

```

<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 2.2.4.16) | Specifies an instance of the TargetFolderIdType complex type that specifies the folder to which the items specified by the ItemIds property (as specified below) are to be moved or copied. |
| ItemIds | t:NonEmptyArrayOfBaseItemIdsType (section 2.2.4.31) | Specifies an array of elements of type BaseItemIdType ([MS-OXWSCDATA] section 2.2.4.15) that specifies a set of items to be moved or copied. |
| ReturnNewItemIds | xs:boolean ([XMLSCHEMA2]) | Specifies a Boolean return value that indicates whether the ItemIds element is to be returned for new items. This element will be ignored by server. <45> |

2.2.4.17 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. |

2.2.4.18 t:ContactType Complex Type

The **ContactType** complex type specifies the type of a contact. This type extends the **EntityType** complex type, as specified in section [2.2.4.22](#). [<46>](#)

```
<xs:complexType name="ContactType">
  <xs:complexContent>
    <xs:extension base="t:EntityType">
      <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:extension>
  </xs:complexContent>
</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 [2.2.4.11](#), that represents phone number contacts.

Urls: An element of type **ArrayOfUrlsType**, as defined in section [2.2.4.15](#), that represents URL contacts.

EmailAddresses: An element of type **ArrayOfExtractedEmailAddresses**, as defined in section [2.2.4.7](#), that represents email contacts.

Addresses: An element of type **ArrayOfAddressesType**, as defined in section [2.2.4.3](#), that represents postal addresses of contacts.

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

2.2.4.19 t:EmailAddressEntityType Complex Type

The **EmailAddressEntityType** complex type specifies an email address. This type extends the **EntityType** complex type, as specified in section [2.2.4.22](#). [<47>](#)

```
<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: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.

2.2.4.20 t:EmailUserType Complex Type

The **EmailUserType** complex type specifies an email user. [<48>](#)

```

<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.

2.2.4.21 t:EntityExtractionResultType Complex Type

The **EntityExtractionResultType** complex type specifies the result of an entity extraction. [<49>](#)

```

<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>

```

Addresses: An element of type **ArrayOfAddressEntitiesType**, as defined in section [2.2.4.2](#), that represents the address entities returned.

MeetingSuggestions: An element of type **ArrayOfMeetingSuggestionsType**, as defined in section [2.2.4.9](#), that represents the meeting suggestions returned.

TaskSuggestions: An element of type **ArrayOfTaskSuggestionsType**, as defined in section [2.2.4.13](#), that represents the task suggestions returned.

EmailAddresses: An element of type **ArrayOfEmailAddressEntitiesType**, as defined in section [2.2.4.5](#), that represents the email address entities returned.

Contacts: An element of type **ArrayOfContactsType**, as defined in section [2.2.4.4](#), that represents the contacts returned.

Urls: An element of type **ArrayOfUrlEntitiesType**, as defined in section [2.2.4.14](#), that represents the **URL** entities returned.

PhoneNumbers: An element of type **ArrayOfPhoneEntitiesType**, as defined in section [2.2.4.10](#), that represents the phone entities returned.

2.2.4.22 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. [<50>](#)

```
<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.

2.2.4.23 t:FlagType Complex Type

The **FlagType** complex type specifies a flag indicating status, start date, due date, or completion date for an item. [<51>](#)

```
<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 3.1.4.2.4.2, 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.

If the **FlagStatus** element is set to **Flagged**, the **CompleteDate** element MUST not be set in the request, and the **StartDate** and **DueDate** elements MUST be set or unset in pair; if the **FlagStatus** element is set to **Complete**, the **StartDate** and **DueDate** elements MUST not be set in the request; if the **FlagStatus** element is set to **NotFlagged**, the **CompleteDate**, **StartDate**, and **DueDate** elements MUST not be set in the request. Otherwise, **ErrorInvalidArgument** ([\[MS-OXWSCDATA\]](#) section 2.2.5.24) will be returned.

2.2.4.24 t:ItemType Complex Type

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

```
<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="PredictedActionReasons"
type="t:NonEmptyArrayOfPredictedActionReasonType" minOccurs="0"/>
    <xs:element name="IsClutter" type="xs:boolean" 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:element name="MimeContentUTF8" type="t:MimeContentUTF8Type" minOccurs="0"/>
<xs:element name="SearchKey" type="xs:base64Binary" minOccurs="0"/>
<xs:element name="SortKey" type="xs:long" minOccurs="0"/>
<xs:element name="Hashtags" type="t:ArrayOfStringsType" minOccurs="0"/>
<xs:element name="Mentions" type="t:ArrayOfRecipientsType" minOccurs="0"/>
<xs:element name="MentionedMe" type="xs:boolean" minOccurs="0"/>
<xs:element name="PendingSocialActivityTagIds" type="t:ArrayOfStringsType"
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 2.2.4.28) | Specifies an instance of the MimeContentType complex type that contains the native MIME stream of an object that is represented in base64 encoding . This element is only applicable to PostItemType , MessageType , and CalendarItemType object when setting MIME content for an item, or an ErrorUnsupportedMimeConversion ([MS-OXWSCDATA] section 2.2.5.24) will be returned. This element is applicable for all item objects when retrieving MIME content. <52> |
| ItemId | t:ItemIdType (section 2.2.4.25) | Specifies an instance of the ItemIdType complex type that represents the unique identifier and specific version of an item in the server data store. This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| ParentFolderId | t:FolderIdType ([MS-OXWSCDATA] section 2.2.4.35) | Specifies an instance of the FolderIdType complex type that represents the identifier of the parent folder that contains an item or folder. This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section |

| Element name | Type | Description |
|-------------------------|---|--|
| | | 2.2.5.24) will be returned. |
| ItemClass | t:ItemClassType (section 2.2.5.4) | Specifies a string value that indicates the message class of an item. This value is "IPM.Contact" for contact item, "IPM.Appointment" for calendar item, "IPM.Post" for post item, "IPM.Task" for task item and "IPM.DistList" for distribution list item. If invalid values are set for these items in the CreateItem request, an ErrorObjectTypeChanged ([MS-OXWSCDATA] section 2.2.5.24) response code will be returned in the CreateItem response. |
| 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 2.2.5.25) | Specifies one of the valid SensitivityChoicesType simple type enumeration values that indicate the sensitivity level of an item. |
| Body | t:BodyType ([MS-OXWSCDATA] section 2.2.4.19) | Specifies the body content and body content format of an item. |
| Attachments | t:NonEmptyArrayOfAttachmentsType ([MS-OXWSCDATA] section 2.2.4.47) | Specifies an array of items or files that are attached to an item. <53> |
| DateTimeReceived | xs:dateTime [XMLSCHEMA2] | Specifies the date and time that an item was received in a mailbox . This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| Size | xs:int [XMLSCHEMA2] | Specifies an integer value that represents the size of an item, in bytes. This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |

| Element name | Type | Description |
|-------------------------------|---|--|
| Categories | t:ArrayOfStringsType ([MS-OXWSCDATA] section 2.2.4.13) | 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 folder which is used for submission. Such as Outbox folder or Drafts 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 2.2.4.32) | Specifies an array of the type InternetHeaderType ([MS-OXWSCDATA] section 2.2.4.39) that represents the collection of all Internet message headers, as described in [RFC2822] section 2.2, that are contained in an item in a mailbox. It can only be retrieved by GetItem (section 3.1.4.4) operation. |
| DateTimeSent | xs:dateTime | Specifies the date and time when an item in a mailbox was sent. This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| DateTimeCreated | xs:dateTime | Specifies the date and time when an item in a mailbox was |

| Element name | Type | Description |
|-----------------------------------|--|---|
| | | created. This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| ResponseObjects | t:NonEmptyArrayOfResponseObjectType (section 2.2.4.33) | Specifies an array of type ResponseObjectType ([MS-OXWSCDATA] section 2.2.4.67) that contains a collection of all the response objects that represent the applicable actions for 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 (as specified below) 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. <54> |
| ReminderMinutesBeforeStart | t:ReminderMinutesBeforeStartType (section 2.2.5.5) | Specifies an int 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 carbon copy (Cc) recipient display names, separated by "; ". |
| 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, separated by "; ". This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| HasAttachments | xs:boolean | Specifies a Boolean value that indicates whether an item has at |

| Element name | Type | Description |
|-------------------------------------|--|--|
| | | least one attachment. |
| ExtendedProperty | t:ExtendedPropertyType ([MS- OXWSXPROP] section 2.1.5) | Specifies an array of ExtendedPropertyType elements that identify extended Messaging Application Programming Interface (MAPI) properties. |
| Culture | xs:language ([XMLSCHEMA2]) | Specifies the culture for an item in a mailbox. |
| EffectiveRights | t:EffectiveRightsType ([MS-OXWSCDATA] section 2.2.4.29) | Specifies an EffectiveRightsType element that represents the client's rights based on the permission settings for an item or folder. This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| LastModifiedName | xs:string | Specifies a string value that contains the name of the user who last modified an item. This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| LastModifiedTime | xs:dateTime | Specifies an instance of the dateTime |
| IsAssociated | xs:boolean | Specifies a value that indicates whether the item is associated with a folder. <55> |
| WebClientReadFormQueryString | xs:string | Specifies a query string that identifies a read form accessible by using a Web browser. <56> It is read-only for client. This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| WebClientEditFormQueryString | xs:string | MAY specify a query string that identifies an edit form accessible by using a Web browser. <57> It is read-only for client. |
| ConversationId | t:ItemIdType | Specifies the ID of the conversation that an item is part |

| Element name | Type | Description |
|-------------------------------|--|---|
| | | of. .58> For more information on conversations, see [MS-OXWSCONV] . |
| UniqueBody | t:BodyType ([MS-OXWSCDATA] section 2.2.4.19) | Specifies the body part that is unique to the conversation that an item is part of. .59> For more information on conversations, see [MS-OXWSCONV] . |
| Flag | t:FlagType (section 2.2.4.23) | Specifies a flag indicating status, start date, due date or completion date for an item. .60> |
| StoreEntryId | xs:base64Binary ([XMLSCHEMA2]) | Specifies the entry ID of the store that hosts an item. This element SHOULD .61> be included. It is read-only for the client and will be ignored by the server. .62> |
| InstanceKey | xs:base64Binary | Specifies the key for an instance. .63> This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| NormalizedBody | t:BodyType ([MS-OXWSCDATA] section 2.2.4.19) | Specifies the version of the body of a message visible in the preview pane when accessing a message over the Internet. .64> This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| EntityExtractionResult | t:EntityExtractionResultType (section 2.2.4.21) | Specifies the result of an entity extraction. .65> |
| PolicyTag | t:RetentionTagType ([MS-OXWSURPT] section 2.2.4.1) | Specifies the retention policy for the item. .66> |
| ArchiveTag | t:RetentionTagType | Specifies an archive tag. .67> |
| RetentionDate | xs:dateTime | Specifies the retention date for an item. .68> |
| Preview | xs:string | Specifies the first 256 characters of the body of a message for preview without opening the message. .69> This element is read-only and |

| Element name | Type | Description |
|------------------------------------|--|---|
| | | can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| RightsManagementLicenseData | t:RightsManagementLicenseDataType (section 2.2.4.42) | Specifies rights management license data. <70> This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| NextPredictedAction | t:PredictedMessageType ([MS-OXWSCDATA] section 2.2.5.22) | Specifies the next predicted action for the item. <71> |
| GroupingAction | t:PredictedMessageType | Specifies that the next predicted action is grouping items. <72> This element is read-only and can be returned by the server. |
| PredictedActionReasons | t:NonEmptyArrayOfPredictedActionReasonType | Intended for internal use only. <73> |
| IsClutter | xs:boolean | <74> Intended for internal use only. |
| BlockStatus | xs:boolean | Indicates whether images are blocked. <75> This element is read-only and can be returned by the server but if specified in a CreateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| HasBlockedImages | xs:boolean | Indicates whether the item has blocked images. <76> |
| TextBody | t:BodyType | Specifies the text body of the item. <77> This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| IconIndex | t:IconIndexType ([MS-OXWSCDATA] section 2.2.5.16) | Specifies the index of the icon for the item. <78> This element is read-only and can be returned by the server but if specified in a CreateItem or UpdateItem request, an ErrorInvalidPropertySet |

| Element name | Type | Description |
|----------------------------------|--|---|
| | | ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |
| MimeContentUTF8 | t:MimeContentUTF8Type (section 2.2.4.29) | Specifies an instance of the MimeContentUTF8Type complex type that contains the native MIME stream of an object that is represented in UTF-8 . <79> |
| SearchKey | xs:base64Binary | Specifies a search key. <80> |
| SortKey | xs:long ([XMLSCHEMA2]) | Specifies a sort key. <81> |
| Hashtags | t:ArrayOfStringsType | Specifies hashtags. <82> |
| Mentions | t:ArrayOfRecipientsType | Specifies mentions. <83> |
| MentionedMe | xs:boolean | Specifies whether the mention applies to the mailbox owner. <84> |
| PendingSocialActivityTags | t:ArrayOfStringsType | Specifies tag ids to track draft social activity tags. <85> |

2.2.4.25 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 2.2.4.15](#)).

```

<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 keyspecific version of an item. The maximum size of |

| Attribute name | Type | Description |
|----------------|------|--|
| | | this attribute is 512 bytes after base64 encoding. |

2.2.4.26 t:ManagementRoleType Complex Type

The **ManagementRoleType** complex type specifies the roles that are associated with a user or application. [<86>](#)

```
<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 2.2.4.34) | Specifies an array of elements of type string that specifies a set of user roles. |
| ApplicationRoles | t:NonEmptyArrayOfRoleType (section 2.2.4.34) | Specifies an array of elements of type string that specifies a set of application roles. |

2.2.4.27 t:MeetingSuggestionType Complex Type

The **MeetingSuggestionType** complex type specifies a meeting suggestion. This type extends the **EntityType** complex type, as specified in section [2.2.4.22](#). [<87>](#)

```
<xs:complexType name="MeetingSuggestionType">
  <xs:complexContent>
    <xs:extension base="t:EntityType">
      <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:extension>
  </xs:complexContent>
</xs:complexType>
```

Attendees: An element of type **ArrayOfEmailUsersType**, as defined in section [2.2.4.6](#), 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. [<88>](#)

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.

2.2.4.28 t:MimeTypeComplex Type

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

```
<xs:complexType name="MimeType">
  <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 **MimeType** 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 . |

2.2.4.29 t:MimeTypeUTF8Complex Type

The **MimeTypeUTF8Complex** complex type specifies the **MIME** content of an item.[<89>](#)

```
<xs:complexType name="MimeTypeUTF8Complex">
  <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 the attribute of the **MimeTypeUTF8Complex** complex type.

| Attribute name | Type | Description |
|---------------------|--|--|
| CharacterSet | xs:string [XMLSCHEMA2] | Specifies the character set used. This value is ignored by the server. |

2.2.4.30 t:NetworkItemType Complex Type

The **NetworkItemType** complex type is intended for internal use only. [<90>](#)

```
<xs:complexType name="NetworkItemType">
  <xs:complexContent>
    <xs:extension base="t:ItemType">
      <xs:sequence>
        <xs:element name="DomainId" type="xs:int" minOccurs="0"/>
        <xs:element name="DomainTag" type="xs:string" minOccurs="0"/>
        <xs:element name="UserTileUrl" type="xs:string" minOccurs="0"/>
        <xs:element name="ProfileUrl" type="xs:string" minOccurs="0"/>
        <xs:element name="Settings" type="xs:int" minOccurs="0"/>
        <xs:element name="IsDefault" type="xs:boolean" minOccurs="0"/>
        <xs:element name="AutoLinkError" type="xs:string" minOccurs="0"/>
        <xs:element name="AutoLinkSuccess" type="xs:string" minOccurs="0"/>
        <xs:element name="UserEmail" type="xs:string" minOccurs="0"/>
        <xs:element name="ClientPublishSecret" type="xs:string" minOccurs="0"/>
        <xs:element name="ClientToken" type="xs:string" minOccurs="0"/>
        <xs:element name="ClientToken2" type="xs:string" minOccurs="0"/>
        <xs:element name="ContactSyncError" type="xs:string" minOccurs="0"/>
        <xs:element name="ContactSyncSuccess" type="xs:string" minOccurs="0"/>
        <xs:element name="ErrorOffers" type="xs:int" minOccurs="0"/>
        <xs:element name="FirstAuthErrorDates" type="xs:string" minOccurs="0"/>
        <xs:element name="LastVersionSaved" type="xs:int" minOccurs="0"/>
        <xs:element name="LastWelcomeContact" type="xs:string" minOccurs="0"/>
        <xs:element name="Offers" type="xs:int" minOccurs="0"/>
        <xs:element name="PsaLastChanged" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="RefreshToken2" type="xs:string" minOccurs="0"/>
        <xs:element name="RefreshTokenExpiry2" type="xs:string" minOccurs="0"/>
        <xs:element name="SessionHandle" type="xs:string" minOccurs="0"/>
        <xs:element name="RejectedOffers" type="xs:int" minOccurs="0"/>
        <xs:element name="SyncEnabled" type="xs:boolean" minOccurs="0"/>
        <xs:element name="TokenRefreshLastAttempted" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="TokenRefreshLastCompleted" type="xs:dateTime" minOccurs="0"/>
        <xs:element name="PsaState" type="xs:string" minOccurs="0"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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

| Element | Type | Description |
|----------------------------|--|------------------------|
| DomainId | xs:int [XMLSCHEMA2] | For internal use only. |
| UserTileUrl | xs:string [XMLSCHEMA2] | For internal use only. |
| ProfileUrl | xs:string | For internal use only. |
| Settings | xs:int | For internal use only. |
| IsDefault | xs:boolean [XMLSCHEMA2] | For internal use only. |
| AutoLinkError | xs:string | For internal use only. |
| AutoLinkSuccess | xs:string | For internal use only. |
| UserEmail | xs:string | For internal use only. |
| ClientPublishSecret | xs:string | For internal use only. |
| ClientToken | xs:string | For internal use only. |

| Element | Type | Description |
|---------------------------|--------------------------|------------------------|
| ClientToken2 | xs:string | For internal use only. |
| ContactSyncError | xs:string | For internal use only. |
| ContactSyncSuccess | xs:string | For internal use only. |
| ErrorOffers | xs:int | For internal use only. |
| FirstAuthErrorDates | xs:string | For internal use only. |
| LastVersionSaved | xs:int | For internal use only. |
| LastWelcomeContact | xs:string | For internal use only. |
| Offers | xs:int | For internal use only. |
| PsaLastChanged | xs:dateTime [XMLSCHEMA2] | For internal use only. |
| RefreshToken2 | xs:string | For internal use only. |
| RefreshTokenExpiry2 | xs:string | For internal use only. |
| SessionHandle | xs:string | For internal use only. |
| RejectedOffers | xs:int | For internal use only. |
| SyncEnabled | xs:boolean | For internal use only. |
| TokenRefreshLastAttempted | xs:dateTime | For internal use only. |
| TokenRefreshLastCompleted | xs:dateTime | For internal use only. |
| "PsaState | xs:string | For internal use only. |

2.2.4.31 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 2.2.4.25) | Specifies the item identifier. |
| OccurrenceItemId | t:OccurrenceItemIdType (section 2.2.4.35) | Specifies a single occurrence of a |

| Element name | Type | Description |
|------------------------------------|--|---|
| | | recurring item. |
| RecurringMasterItemId | t:RecurringMasterItemIdType (section 2.2.4.39) | Specifies a recurring master item by indicating the identifier of one of the master item's related occurrence items. |
| RecurringMasterItemIdRanges | RecurringMasterItemIdRangesType (section 2.2.4.40) | Specifies a union of all occurrences of a recurring master, which fit into at least one of the specified ranges. <91> |

2.2.4.32 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 (IMS-OXWSCDATA section 2.2.4.39) | Specifies a single Internet message header. |

2.2.4.33 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:element name="AddItemToMyCalendar"
      type="t:AddItemToMyCalendarType"
    />
    <xs:element name="ProposeNewTime"
      type="t:ProposeNewTimeType"
    />
  </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 2.2.4.27) | Specifies a Tentative reply to a meeting request. |
| DeclineItem | t:DeclineItemType ([MS-OXWSMTGS] section 2.2.4.11) | Specifies a Decline reply to a meeting request. |
| ReplyToItem | t:ReplyToItemType ([MS-OXWSCDATA] section 2.2.4.64) | Specifies a reply to the sender of an item. |
| ForwardItem | t:ForwardItemType ([MS-OXWSCDATA] section 2.2.4.37) | Specifies a server store item to be forwarded to recipients . |
| ReplyAllToItem | t:ReplyAllToItemType ([MS-OXWSCDATA] section 2.2.4.62) | Specifies a reply to the sender and all identified recipients of an item in the server store. |
| CancelCalendarItem | t:CancelCalendarItemType ([MS-OXWSMTGS] section 2.2.4.10) | Specifies the response object that is used to cancel a meeting. |

| Element name | Type | Description |
|--------------------------------|---|--|
| RemoveItem | t:RemoveItemType ([MS-OXWSMTGS] section 2.2.4.26) | Specifies a response object that is used to remove a meeting item when a meeting cancellation message is received. |
| SuppressReadReceipt | t:SuppressReadReceiptType ([MS-OXWSCDATA] section 2.2.4.71) | Specifies a response to a request to suppress a read receipt . |
| PostReplyItem | t:PostReplyItemType ([MS-OXWSPPOST] section 2.2.4.3) | Specifies a reply to a post item. |
| AcceptSharingInvitation | t:AcceptSharingInvitationType ([MS-OXWSCDATA] section 2.2.4.3) | Specifies a response object that is used to accept an invitation that allows access to another user's calendar or contacts data. |
| AddItemToMyCalendar | t:AddItemToMyCalendarType ([MS-OXWSMTGS] section 2.2.4.2) | Specifies the response object that is used to add an item to the user's calendar. <92> |
| ProposeNewTime | t:ProposeNewTimeType ([MS-OXWSMTGS] section 2.2.4.24) | Specifies the response object that is used to propose a new time. <93> |

2.2.4.34 t:NonEmptyArrayOfRoleType Complex Type

The **NonEmptyArrayOfRoleType** complex type specifies an array of role types. [<94>](#)

```
<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. |

2.2.4.35 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 2.2.4.15).

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



```

        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. |

2.2.4.36 t:OccurrencesRangeType Complex Type

The **OccurrencesRangeType** complex type specifies a range of occurrences. [<95>](#)

```

<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. The default value is 1.

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".

2.2.4.37 t:PhoneType Complex Type

The **PhoneType** complex type specifies a phone number and its type. [<96>](#)

```

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

```

```

    <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".

2.2.4.38 t:PhoneEntityType Complex Type

The **PhoneEntityType** complex type specifies a phone entity. This type extends the **EntityType** complex type, as specified in section [2.2.4.22.<97>](#)

```

<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".

2.2.4.39 t:RecurringMasterItemIdType Complex Type

The **RecurringMasterItemIdType** complex type specifies a recurring 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 2.2.4.15).

```

<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. |

2.2.4.40 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 [2.2.4.25.<98>](#)

```
<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 2.2.4.12) | Specifies an array of occurrence ranges. |

2.2.4.41 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 2.2.4.67).

```
<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:restriction>
  </xs:complexContent>
</xs:complexType>
```

```

        />
    </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 `ReferenceItemResponseType` complex type.

| Element name | Type | Description |
|-----------------|--|---|
| ReferenceItemId | t:ItemIdType (section 2.2.4.25) | Specifies the referenced item identifier. |
| ObjectName | xs:string [XMLSCHEMA2] | Specifies the name of the reply object class as a string. |

2.2.4.42 t:RightsManagementLicenseDataType Complex Type

The **RightsManagementLicenseDataType** complex type specifies information about the rights management license. [<99>](#)

```

<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.

2.2.4.43 t:RoleMemberItemType Complex Type

The **RoleMemberItemType** complex type specifies is intended for internal use only. [<100>](#)

```
xs:complexType name="RoleMemberItemType">
  <xs:complexContent>
    <xs:extension base="t:ItemType">
      <xs:sequence>
        <xs:element name="MemberId" type="xs:string" minOccurs="0"/>
        <xs:element name="DisplayName" type="xs:string" minOccurs="0"/>
        <xs:element name="Type" type="t:RoleMemberTypeType" minOccurs="0"/>
        <xs:element name="RoleMemberTypeSpecified" type="xs:boolean" minOccurs="0"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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

| Element | Type | Description |
|-------------------------|--|------------------------|
| MemberId | xs:string | For internal use only. |
| DisplayName | xs:string ([XMLSCHEMA2]) | For internal use only. |
| Type | t:RoleMemberTypeType (section 2.2.5.6) | For internal use only. |
| RoleMemberTypeSpecified | xs:boolean ([XMLSCHEMA2]) | For internal use only. |

2.2.4.44 t:SmartResponseBaseType Complex Type

The **SmartResponseBaseType** complex type specifies the base type for the **ReplyToItemType** complex type ([MS-OXWSCDATA] section 2.2.4.64), the **ReplyAllToItemType** complex type ([MS-OXWSCDATA] section 2.2.4.62), the **ForwardItemType** complex type ([MS-OXWSCDATA] section 2.2.4.37), and the **CancelCalendarItemType** complex type, as specified in [MS-OXWSMTGS] section 2.2.4.10. The **SmartResponseBaseType** complex type extends the **ResponseObjectType** complex type ([MS-OXWSCDATA] section 2.2.4.67).

```
<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 2.2.4.19) | Specifies the body content of an item. |
| ToRecipients | t:ArrayOfRecipientsType ([MS-OXWSCDATA] section 2.2.4.11) | 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. A text value of true indicates that a read receipt is requested. |
| IsDeliveryReceiptRequested | xs:boolean | Specifies whether a delivery receipt is requested. A text value of true indicates that a delivery receipt is requested. |

| Element name | Type | Description |
|------------------------|--|---|
| From | t:SingleRecipientType ([MS-OXWSCDATA] section 2.2.4.69) | Specifies the addressee from whom a message was sent. |
| ReferenceItemId | t:ItemIdType (section 2.2.4.25) | 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. |

2.2.4.45 t:SmartResponseType Complex Type

The **SmartResponseType** complex type specifies the base type for the **ReplyToItemType** complex type ([\[MS-OXWSCDATA\]](#) section 2.2.4.64), the **ReplyAllToItemType** complex type ([MS-OXWSCDATA] section 2.2.4.62), the **ForwardItemType** complex type ([MS-OXWSCDATA] section 2.2.4.37), and the **CancelCalendarItemType** complex type, as specified in [\[MS-OXWSMTGS\]](#) section 2.2.4.10. The **SmartResponseType** complex type extends the **SmartResponseBaseType** complex type, as specified in section [2.2.4.44](#).

```
<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 2.2.4.19) | Specifies the new body content of a message response object. |

2.2.4.46 t:TaskSuggestionType Complex Type

The **TaskSuggestionType** complex type specifies a task suggestion. This type extends the **EntityType** complex type, as specified in section [2.2.4.22.<101>](#)

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

```

        <xs:element name="Assignees" type="t:ArrayOfEmailUsersType" minOccurs="0"
maxOccurs="1" />
    </xs:sequence>
</xs:extension>
</xs:complexContent>
</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 [2.2.4.6](#), that represents the persons that are to accomplish the task.

2.2.4.47 m:UpdateItemResponseMessageType

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 2.2.4.41).

```

<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 2.2.4.17) | Specifies the number of conflicts in the result of a single call. |

2.2.4.48 t:UrlEntityType Complex Type

The **UrlEntityType** complex type specifies a **URL** entity. This type extends the **EntityType** complex type, as specified in section [2.2.4.22.<102>](#)

```

<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="0"
        />
        <xs:maxInclusive
            value="1525252321"
        />
    </xs:restriction>
</xs:simpleType>
</xs:union>
</xs:simpleType>

```

2.2.5.6 t:RoleMemberType Simple Type

The **RoleMemberType** simple type is intended for internal use only. [<103>](#)

```

<xs:simpleType name="RoleMemberType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="None"/>
        <xs:enumeration value="Passport"/>
        <xs:enumeration value="Everyone"/>
        <xs:enumeration value="Email"/>
        <xs:enumeration value="Phone"/>
        <xs:enumeration value="SkypeId"/>
        <xs:enumeration value="ExternalId"/>
        <xs:enumeration value="Group"/>
        <xs:enumeration value="Guid"/>
        <xs:enumeration value="Role"/>
        <xs:enumeration value="Service"/>
        <xs:enumeration value="Circle"/>
        <xs:enumeration value="Domain"/>
        <xs:enumeration value="Partner"
    </xs:restriction>
</xs:simpleType>

```

The following table lists the possible values of this type.

| Value | Meaning |
|-----------------|------------------------|
| None | For internal use only. |
| Passport | For internal use only. |
| Everyone | For internal use only. |
| Email | For internal use only. |
| Phone | For internal use only. |

| Value | Meaning |
|------------|------------------------|
| SkypeId | For internal use only. |
| ExternalId | For internal use only. |
| Group | For internal use only. |
| Guid | For internal use only. |
| Role | For internal use only. |
| Service | For internal use only. |
| Circle | For internal use only. |
| Domain | For internal use only. |
| Partner | For internal use only. |

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 **WSDL port type** with seven operations. Those operations enable client implementations to create, get, update, delete, move, send, 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 |
|-------------------------------------|--|
| CopyItem | Copies items on the server. |
| CreateItem | Creates items on the server. |
| DeleteItem | Deletes items on the server. |
| GetItem | Gets items on the server. |
| MarkAllItemsAsRead | Marks all the items in a folder as read or unread. |
| MarkAsJunk | Marks an item as junk. <104> |
| MoveItem | Moves items on the server. |
| SendItem | Sends messages on the server. |
| UpdateItem | Updates items on the server. |
| UpdateItemInRecoverableItems | Updates an item in the recoverable items folder. <105> |

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">
  <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 items 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 items 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 (IMS- | Specifies a SOAP header that identifies the user |

| Part name | Element/type | Description |
|-----------------------|--|---|
| | OXWSCDATA section 2.2.3.3) | whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | 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 2.2.3.9) | 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 items 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 2.2.3.10) | 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 items 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 items 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 2.2.4.18).

```
<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 a request to copy items in a **mailbox**. The **CopyItemType** complex type extends the **BaseMoveCopyItemType** complex type, as specified in section [2.2.4.16](#).

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

3.1.4.1.4 Simple Types

None.

3.1.4.1.5 Attributes

None.

3.1.4.1.6 Groups

None.

3.1.4.1.7 Attribute Groups

None.

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">
  <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 request to create items. |
| 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 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | 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 2.2.3.9) | 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. |

| Part name | Element/type | Description |
|----------------------|--|--|
| ServerVersion | t:ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10) | Specifies a SOAP header that identifies the server version for the response to a CreateItem operation request. |

If the request is successful, the **CreateItem** operation returns a **CreateItemResponse** element with the **ResponseClass** attribute of the **CreateItemResponseMessage** element set to "Success". The **ResponseCode** element of the **CreateItemResponseMessage** element is set to "NoError".

If the request is unsuccessful, the **CreateItem** operation returns a **CreateItemResponse** element with the **ResponseClass** attribute of the **CreateItemResponseMessage** element set to "Error". The **ResponseCode** element of the **CreateItemResponseMessage** element is set to a value of the **ResponseCodeType** simple type, as specified in [MS-OXWSCDATA] section 2.2.5.24.

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 items. |
| 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 items.

```
<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 CreateItem operation request. |
| CreateItemType | Specifies a request to create an item. |

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 2.2.4.18).

```
<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. The **CreateItemType** complex type extends the **BaseRequestType** complex type ([\[MS-OXWSCDATA\]](#) section 2.2.4.17).

```
<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. [<106>](#)

| Element name | Type | Description |
|--------------------------|---|--|
| SavedItemFolderId | t:TargetFolderIdType ([MS-OXWSFOLD] section 2.2.4.16) | Specifies the folder in which new items are saved. |
| Items | t:NonEmptyArrayOfAllItemsType ([MS-OXWSCDATA] section 2.2.4.46) | 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. |
| SendMeetingInvitations | t:CalendarItemCreateOrDeleteOperationType ([MS-OXWSMTGS] section 2.2.5.1) | Specifies an enumeration that describes how meeting requests are handled after they are created. |

3.1.4.2.4 Simple Types

None.

3.1.4.2.5 Attributes

None.

3.1.4.2.6 Groups

None.

3.1.4.2.7 Attribute Groups

None.

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 that items 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 items 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 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | 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 2.2.3.9) | 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 items 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 2.2.3.10) | Specifies a SOAP header that identifies the server version for a response. |

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 items 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 items 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 2.2.4.18).

```
<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 2.2.4.17).

```
<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:attribute name="SuppressReadReceipts"
        type="xs:boolean"
        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 2.2.4.31) | 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 2.2.5.9) | 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 cancellations are to be handled for deleted meetings. |
| AffectedTaskOccurrences | t:AffectedTaskOccurrencesType ([MS-OXWSTASK] section 3.1.4.3.4.1) | Specifies an enumeration value that indicates whether an occurrence of a task or a master task with all recurring tasks associated with the master task is deleted. |
| SuppressReadReceipts | xs:boolean ([XMLSCHEMA2]) | Specifies whether read receipts are suppressed. <107> |

3.1.4.3.4 Simple Types

None.

3.1.4.3.5 Attributes

None.

3.1.4.3.6 Groups

None.

3.1.4.3.7 Attribute Groups

None.

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 items 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 items 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 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | 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- | Specifies a SOAP header that identifies the |

| Part name | Element/type | Description |
|--------------------------|---|---|
| | OXWSCDATA] section 2.2.3.9) | schema version for a GetItem 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. <108> |
| DateTimePrecision | t:DateTimePrecision ([MS-OXWSCDATA] section 2.2.3.1) | 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 <109> be included. |
| ManagementRole | t:ManagementRole (section 2.2.3.1) | Specifies the roles the user or application wants to use. <110> |

3.1.4.4.1.2 tns:GetItemSoapOut Message

The **GetItemSoapOut WSDL message** specifies the server response to the **GetItem** operation request to get items 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 2.2.3.10) | 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 items 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 items from a **mailbox**.

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

3.1.4.4.2 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 2.2.4.18).

```
<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 2.2.4.17).

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

```

        <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 2.2.4.42) | Specifies the response shape of a GetItem operation response. |
| ItemIds | t:NonEmptyArrayOfBaseItemIdsType (section 2.2.4.31) | Specifies the collection of items that a GetItem operation is to get. |

3.1.4.4.4 Simple Types

None.

3.1.4.4.5 Attributes

None.

3.1.4.4.6 Groups

None.

3.1.4.4.7 Attribute Groups

None.

3.1.4.5 MarkAllItemsAsRead Operation

The **MarkAllItemsAsRead** operation marks all items in a folder as read or unread. [<111>](#)

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 or unread. |
| 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 or unread.

```

<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 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | Specifies a SOAP header that identifies the culture to be used for accessing a mailbox . The cultures are defined in [RFC3066] . |

| Part name | Element/type | Description |
|-----------------------|--|---|
| RequestVersion | t:RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9) | 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 or unread.

```
<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 2.2.3.10) | 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 or unread. |
| 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 or unread.

```
<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 or unread. |

3.1.4.5.3.1 m:MarkAllItemsAsReadType Complex Type

The **MarkAllItemsAsReadType** complex type specifies a request to mark all items as read or unread. The **MarkAllItemsAsReadType** complex type extends the **BaseRequestType** complex type ([\[MS-OXWSCDATA\]](#) section 2.2.4.17).

```
<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>
```

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

| Messages | Type | Description |
|-----------------------------|--|--|
| ReadFlag | xs:boolean ([XMLSCHEMA2] section 3.2.2) | Specifies whether items are to be marked as read/unread. |
| SuppressReadReceipts | xs:boolean | Specifies whether read receipts are to be suppressed for items. |
| FolderIds | NonEmptyArrayOfBaseFolderIdsType ([MS-OXWSFOLD] section 3.1.4.6.3.3) | Specifies IDs of the folders in which the items are to be marked as read/unread. |

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 2.2.4.18).

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

3.1.4.5.4 Simple Types

None.

3.1.4.5.5 Attributes

None.

3.1.4.5.6 Groups

None.

3.1.4.5.7 Attribute Groups

None.

3.1.4.6 MarkAsJunk Operation

The **MarkAsJunk** operation marks message items as junk. [<112>](#)

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 message items 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 message items 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 message items as junk. |
| Impersonation | t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.4.43) | 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 2.2.3.9) | 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 message items 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. |
| ServerVersion | t:ServerVersionInfo (IMS-OXWSCDATA section 2.2.3.10) | 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 2.2.4.17.

```
<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 | NonEmptyArrayOfBaseItemIdsType (section 2.2.4.31) | 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 2.2.4.18.

```
<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 2.2.4.65.

```
<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 2.2.4.25) | 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 items 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 items 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. |
| Impersonation | t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | 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 2.2.3.9) | 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 items on the server.

```
<wsdl:message name="MoveItemSoapOut">
  <wsdl:part name="MoveItemResult" element="tns:MoveItemResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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 2.2.3.10) | 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 items. |
| 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 items.

```
<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 2.2.4.18).

```
<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 a request to move items in a **mailbox**. The **MoveItemType** complex type extends the **BaseMoveCopyItemType** complex type, as specified in section [2.2.4.16](#).

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


3.1.4.7.4 Simple Types

None.

3.1.4.7.5 Attributes

None.

3.1.4.7.6 Groups

None.

3.1.4.7.7 Attribute Groups

None.

3.1.4.8 SendItem Operation

The **SendItem** operation sends message 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 items. |
| 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 send 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 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | 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 2.2.3.9) | 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 send 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 2.2.3.10) | 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 items. |
| SendItemResponse | 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 items.

```
<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 message 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 2.2.4.18).

```
<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 message items on the server. The **SendItemType** complex type extends the **BaseRequestType** complex type ([\[MS-OXWSCDATA\]](#) section 2.2.4.17).

```
<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 2.2.4.31) | Specifies an array of item identifiers for the items to try to send. |
| SavedItemFolderId | t:TargetFolderIdType ([MS-OXWSFOLD] section 2.2.4.16) | 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. |

3.1.4.8.4 Simple Types

None.

3.1.4.8.5 Attributes

None.

3.1.4.8.6 Groups

None.

3.1.4.8.7 Attribute Groups

None.

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 items 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>
```

```
</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 (IMS-OXWSCDATA] section 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | 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 2.2.3.9) | Specifies a SOAP header that identifies the schema version for an UpdateItem operation request. |
| TimeZoneContext | t:TimeZoneContext (IMS-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 (IMS-OXWSCDATA] section 2.2.3.10) | 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 items 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 items 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 an 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. |

| Complex type name | Description |
|-------------------------|--|
| 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 2.2.4.18).

```
<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 2.2.4.17).

```
<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:attribute name="SuppressReadReceipts"
        type="xs:boolean"
        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 2.2.4.16) | 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 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. |
| SuppressReadReceipts | xs:boolean ([XMLSCHEMA2]) | Specifies whether read receipts are suppressed. <113> |

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 an **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:choice>
    </xs:complexContent>
  </xs:complexType>
```

```

<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:element name="RoleMember"
  type="t:RoleMemberItemType"
/>
<xs:element name="Network"
  type="t:NetworkItemType"
/>
<xs:element name="Person"
  type="t:AbchPersonItemType"
/>
<xs:element name="Booking"
  type="t:BookingItemType"
/>
<xs:element name="XrmOrganization"
  type="t:XrmOrganizationItemType"
/>
</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 2.2.4.24) | Specifies a generic item. |
| Message | t:MessageType ([MS-OXWSMSG] section 2.2.4.3) | Specifies an email message or non-IPM.Note item. IPM.Note is a subclass of Inter-Personal Mail (IPM) , which describes a note message. |
| CalendarItem | t:CalendarItemType ([MS-OXWSMTGS] section 2.2.4.6) | Specifies a calendar item. |
| Contact | t:ContactItemType ([MS-OXWSCONT] section 2.2.4.3) | Specifies a contact item. |
| DistributionList | t:DistributionListType ([MS-OXWSDLIST] section 2.2.4.1) | Specifies a distribution list. |

| Element name | Type | Description |
|----------------------------|--|-----------------------------------|
| MeetingMessage | t:MeetingMessageType ([MS-OXWSMTGS] section 2.2.4.15) | Specifies a meeting. |
| MeetingRequest | t:MeetingRequestMessageType ([MS-OXWSMTGS] section 2.2.4.17) | Specifies a meeting request. |
| MeetingResponse | t:MeetingResponseMessageType ([MS-OXWSMTGS] section 2.2.4.18) | Specifies a meeting response. |
| MeetingCancellation | t:MeetingCancellationMessageType ([MS-OXWSMTGS] section 2.2.4.14) | Specifies a meeting cancellation. |
| Task | t:TaskType ([MS-OXWSTASK] section 2.2.4.6) | Specifies a task. |
| PostItem | t:PostItemType ([MS-OXWSPOST] section 2.2.4.1) | Specifies a post item. |
| RoleMember | t:RoleMemberItemType (section 2.2.4.43) | For internal use only. <114> |
| Network | t:NetworkItemType (section 2.2.4.30) | For internal use only. <115> |
| Person | t:AbchPersonItemType ([MS-OXWSCONT] section 2.2.4.1) | Specifies a person contact. <116> |
| Booking | t:BookingItemType ([MS-OXWSCDATA] section 2.2.4.20) | For internal use only. <117> |
| XrmOrganization | t:XrmOrganizationItemType ([MS-OXWSCDATA] section 2.2.4.77) | For internal use only. <118> |

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 2.2.3.8) | 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 2.2.4.25) | Specifies an item identifier of an item in a mailbox . |
| OccurrenceItemId | t:OccurrenceItemIdType (section 2.2.4.35) | Specifies a single occurrence of a recurring item. |
| RecurringMasterItemId | t:RecurringMasterItemIdType (section 2.2.4.39) | Specifies a recurring 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. |

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" maxOccurs="unbounded"
    />
  </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 **ItemChangeDescriptionType** complex type, as specified in section [3.1.4.9.3.6](#).

```
<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:element name="RoleMember"
      type="t:RoleMemberItemType"
    />
    <xs:element name="Network"
      type="t:NetworkItemType"
    />
    <xs:element name="Person"
      type="t:AbchPersonItemType"
    />
    <xs:element name="Booking"
      type="t:BookingItemType"
    />
    <xs:element name="XrmOrganization"
      type="t:XrmOrganizationItemType"
    />
  </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 2.2.4.24) | Specifies a generic item. |
| Message | t:MessageType ([MS-OXWSMSG] section 2.2.4.3) | Specifies an email message or non-IPM.Note item. |
| CalendarItem | t:CalendarItemType ([MS-OXWSMTGS] section 2.2.4.6) | Specifies a calendar item. |
| Contact | t:ContactItemType ([MS-OXWSCONT] section 2.2.4.3) | Specifies a contact item. |
| DistributionList | t:DistributionListType ([MS-OXWSDLIST] section 2.2.4.1) | Specifies a distribution list. |
| MeetingMessage | t:MeetingMessageType ([MS-OXWSMTGS] section 2.2.4.15) | Specifies a meeting. |
| MeetingRequest | t:MeetingRequestMessageType ([MS-OXWSMTGS] section 2.2.4.17) | Specifies a meeting request. |
| MeetingResponse | t:MeetingResponseMessageType ([MS-OXWSMTGS] section 2.2.4.18) | Specifies meeting response. |
| MeetingCancellation | t:MeetingCancellationMessageType ([MS-OXWSMTGS] section 2.2.4.14) | Specifies meeting cancellation. |
| Task | t:TaskType ([MS-OXWSTASK] section 2.2.4.6) | Specifies a task. |
| PostItem | t:PostItemType ([MS-OXWSPOST] section 2.2.4.1) | Specifies a post item. |
| RoleMember | t:RoleMemberItemType (section 2.2.4.43) | For internal use only. <119> |

| Element name | Type | Description |
|------------------------|--|--|
| Network | t:NetworkItemType (section 2.2.4.30) | For internal use only. <120> |
| Person | t:AbchPersonItemType ([MS-OXWSCONT] section 2.2.4.1) | Specifies a person. <121> |
| Booking | t:BookingItemType ([MS-OXWSCDATA] section 2.2.4.20) | For internal use only. <122> |
| XrmOrganization | t:XrmOrganizationType ([MS-OXWSCDATA] section 2.2.4.77) | For internal use only. <123> |

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 the existing property value. |
| 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. |

| Value | Meaning |
|-----------------------|---|
| NeverOverwrite | If there is a conflict, the UpdateItem operation fails and ErrorIrresolvableConflict ([MS-OXWSCDATA] section 2.2.5.24) will be returned. |

3.1.4.9.5 Attributes

None.

3.1.4.9.6 Groups

None.

3.1.4.9.7 Attribute Groups

None.

3.1.4.10 UpdateItemInRecoverableItems Operation

The **UpdateItemInRecoverableItems** operation updates an item in the recoverable items folder. [<124>](#)

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

```
<wsdl:operation name="UpdateItemInRecoverableItems">
  <wsdl:input message="tns:UpdateItemInRecoverableItemsSoapIn" />
  <wsdl:output message="tns:UpdateItemInRecoverableItemsSoapOut" />
</wsdl:operation>
```

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

```
<wsdl:operation name="UpdateItemInRecoverableItems">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/UpdateItemInRecoverableItems" />
  <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" />
    <soap:header message="tns:UpdateItemInRecoverableItemsSoapOut" part="ServerVersion"
      use="literal"/>
  </wsdl:output>
</wsdl:operation>
```

3.1.4.10.1 Messages

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

| Message Name | Description |
|--|--|
| UpdateItemInRecoverableItemsSoapIn | Specifies the SOAP message that requests that recoverable items be updated. |
| UpdateItemInRecoverableItemsSoapOut | Specifies the SOAP message that is returned in response to an UpdateItemInRecoverableItems operation request. |

3.1.4.10.1.1 tns:UpdateItemInRecoverableItemsSoapIn

The **UpdateItemInRecoverableItemsSoapIn** **WSDL message** specifies the **UpdateItemInRecoverableItems** operation request to update an item in the recoverable items folder.

```
<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>
```

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

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

| Part name | Element/type | Description |
|------------------------|--|---|
| request | tns:UpdateItemInRecoverableItems (section 3.1.4.10.2.1) | Specifies the SOAP body of a request. |
| Impersonation | t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3) | Specifies a SOAP header that identifies the user whom the client application is impersonating. |
| MailboxCulture | t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6) | 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 2.2.3.9) | Specifies a SOAP header that identifies the schema version for an UpdateItem operation request. |
| TimeZoneContext | t:TimeZoneContext ([MS-OXWSGTZ] section 2.2.3.4) | Specifies a SOAP header that identifies the time zone to be used for all responses from the |

| Part name | Element/type | Description |
|-----------------------|--|---|
| | | server. All times that are returned from the server will be converted to the specified time zone. |
| ManagementRole | t:ManagementRole (section 2.2.3.1) | Specifies the roles the user or application wants to use. |

3.1.4.10.1.2 tns:UpdateItemInRecoverableItemsSoapOut

The **UpdateItemInRecoverableItemsSoapOut** **WSDL message** specifies the server response to an **UpdateItemInRecoverableItems** operation request to update an item in the recoverable items folder.

```
<wsdl:message name="UpdateItemInRecoverableItemsSoapOut">
  <wsdl:part name="UpdateItemInRecoverableItemsResult"
    element="tns:UpdateItemInRecoverableItemsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

| Part name | Element/type | Description |
|---|---|---|
| UpdateItemInRecoverableItemsResult | tns:UpdateItemInRecoverableItemsResponse (section 3.1.4.10.2.2) | Specifies the SOAP body of a response message. |
| ServerVersion | t:ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10) | Specifies a SOAP header that identifies the server version for a response to an UpdateItemInRecoverableItems operation request. |

3.1.4.10.2 Elements

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

| Element | Description |
|---|--|
| UpdateItemInRecoverableItems | Specifies a request to update an item in the recoverable items folder |
| UpdateItemInRecoverableItemsResponse | Specifies a response to a UpdateItemInRecoverableItems operation request. |

3.1.4.10.2.1 m:UpdateItemInRecoverableItems Element

The **UpdateItemInRecoverableItems** element specifies a request to update an item in the recoverable items folder.

```
<xs:element name="UpdateItemInRecoverableItems" type="m:UpdateItemInRecoverableItemsType"/>
```

3.1.4.10.2.2 m:UpdateItemInRecoverableItemsResponse Element

The **UpdateItemInRecoverableItemsResponse** element specifies the response to a **UpdateItemInRecoverableItems** operation request.

```
<xs:element name="UpdateItemInRecoverableItemsResponse"
type="m:UpdateItemInRecoverableItemsResponseType"/>
```

3.1.4.10.3 Complex Types

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

| Complex type name | Description |
|--|--|
| UpdateItemInRecoverableItemsType | Specifies a request to update an item in the recoverable items folder. |
| UpdateItemInRecoverableItemsResponseType | Specifies the response to a call to the UpdateItemInRecoverableItems operation. |
| UpdateItemInRecoverableItemsResponseMessageType | Specifies the response message from the UpdateItemInRecoverableItems operation. |

3.1.4.10.3.1 m:UpdateItemInRecoverableItemsType Complex Type

The **UpdateItemInRecoverableItemsType** complex type specifies a request to update an item in the recoverable items folder. **UpdateItemInRecoverableItemsType** complex type extends the **BaseRequestType** complex type ([\[MS-OXWSCDATA\]](#) section 2.2.4.17).

```
<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>
```

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

| Element name | Type | Description |
|---------------|---|----------------------|
| ItemId | t:ItemIdType (section 2.2.4.25) | Specifies the unique |

| Element name | Type | Description |
|--------------------------|---|---|
| | | identifier and change key of an item. |
| Updates | t:NonEmptyArrayOfItemChangeDescriptionsType (section 3.1.4.9.3.8) | Specifies a set of elements that define append, set, and delete changes to item properties. |
| Attachments | t:NonEmptyArrayOfAttachmentsType ([MS-OXWSCDATA] section 2.2.4.47) | Specifies the items or files that are attached to an item. |
| MakeItemImmutable | xs:boolean (XMLSCHEMA2 section 3.2.2) | Specifies whether an item should be made read-only. |

3.1.4.10.3.2 m:UpdateItemInRecoverableItemsResponseType Complex Type

The **UpdateItemInRecoverableItemsResponseType** complex type specifies the response to a call to the **UpdateItemInRecoverableItems** operation. The **UpdateItemInRecoverableItemsResponseType** complex type extends the **BaseResponseMessageType** complex type ([\[MS-OXWSCDATA\]](#) section 2.2.4.18).

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

3.1.4.10.3.3 UpdateItemInRecoverableItemsResponseMessageType Complex Type

The **UpdateItemInRecoverableItemsResponseMessageType** complex type specifies the response message from the **UpdateItemInRecoverableItems** operation specified in section [3.1.4.10](#). This type extends the **m:ItemInfoResponseMessageType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.41.

```
<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>
```

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

| Element | Type | Description |
|--------------------|---|--------------------------------------|
| Attachments | t:ArrayOfAttachmentsType ([MS-OXWSATT] section 2.2.4.1) | An array of attachments on the item. |

| Element | Type | Description |
|------------------------|--|--|
| ConflictResults | t:ConflictResultsType (section 2.2.4.17) | Specifies the number of conflicts in the response. |

3.1.4.10.4 Simple Types

None.

3.1.4.10.5 Attributes

None.

3.1.4.10.6 Groups

None.

3.1.4.10.7 Attribute Groups

None.

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>
    </CreateItemResponseMessage>
  </ResponseMessages>
</CreateItemResponseType>
```

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="Exchange2016"
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="Exchange2016"
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: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:message>
</wsdl:definitions>
```

```

        <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: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>
  </wsdl:binding>

```

```

        <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/UpdateItemInRecoverableItems"/>
                    <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"/>
        <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: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 |

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="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="Exchange2016" 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:schema>
```

```

<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:attribute name="SuppressReadReceipts" type="xs:boolean" 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>
          <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="GetRemindersResponseMessageType">
    <xs:complexContent>
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>

```



```

        <xs:element name="Reminders" type="t:ArrayOfRemindersType" minOccurs="1"
maxOccurs="1"/>
    </xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>
<xs:complexType name="GetRemindersType" mixed="false">
    <xs:complexContent>
        <xs:extension base="m:BaseRequestType">
            <xs:sequence>
                <xs:element name="BeginTime" type="xs:dateTime" minOccurs="0" maxOccurs="1"/>
                <xs:element name="EndTime" type="xs:dateTime" minOccurs="0" maxOccurs="1"/>
                <xs:element name="MaxItems" minOccurs="0" maxOccurs="1">
                    <xs:simpleType>
                        <xs:restriction base="xs:int">
                            <xs:minInclusive value="0"/>
                            <xs:maxInclusive value="200"/>
                        </xs:restriction>
                    </xs:simpleType>
                </xs:element>
                <xs:element name="ReminderType" minOccurs="0" maxOccurs="1">
                    <xs:simpleType>
                        <xs:restriction base="xs:string">
                            <xs:enumeration value="All"/>
                            <xs:enumeration value="Current"/>
                            <xs:enumeration value="Old"/>
                        </xs:restriction>
                    </xs:simpleType>
                </xs:element>
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<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: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="PerformReminderActionResponseMessageType">
    <xs:complexContent>
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element name="UpdatedItemIds" type="t:NonEmptyArrayOfItemIdsType" minOccurs="1"
maxOccurs="1"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="PerformReminderActionType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="ReminderItemActions"
type="t:NonEmptyArrayOfReminderItemActionType" minOccurs="1" maxOccurs="1"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <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:attribute name="SuppressReadReceipts" type="xs:boolean" 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:UpdateItemInRecoverableItemsResponseType"/>
</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 |
| MS-OXWSURPT-types.xsd | [MS-OXWSURPT] section 7.2 |
| MS-OXWSXPROP-types.xsd | [MS-OXWSXPROP] section 2.1 |
| MS-OXWSMTGS-types.xsd | [MS-OXWSMTGS] section 7.2 |
| MS-OXWSPOST-types.xsd | [MS-OXWSPOST] section 7.2 |
| MS-OXWSGTZ-types.xsd | [MS-OXWSGTZ] section 7.2 |
| MS-OXWSCONT-types.xsd | [MS-OXWSCONT] section 7.2 |

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema 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/types"
  elementFormDefault="qualified" version="Exchange2016" 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:include schemaLocation="MS-OXWSXPROP-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSMTGS-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSPOST-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSGTZ-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSCONT-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:element name="RoleMember" type="t:RoleMemberItemType"/>
          <xs:element name="Network" type="t:NetworkItemType"/>
          <xs:element name="Person" type="t:AbchPersonItemType"/>
        </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: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:restriction>
  </xs:simpleType>
</xs:schema>
```

```

        <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"/>
    <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="PredictedActionReasons"
type="t:NonEmptyArrayOfPredictedActionReasonType" minOccurs="0"/>
    <xs:element name="IsClutter" type="xs:boolean" 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:element name="MimeContentUTF8" type="t:MimeContentUTF8Type" minOccurs="0"/>
    <xs:element name="SearchKey" type="xs:base64Binary" minOccurs="0"/>
    <xs:element name="SortKey" type="xs:long" minOccurs="0"/>

```

```

        <xs:element name="Hashtags" type="t:ArrayOfStringsType" minOccurs="0"/>
        <xs:element name="Mentions" type="t:ArrayOfRecipientsType" minOccurs="0"/>
        <xs:element name="MentionedMe" type="xs:boolean" minOccurs="0"/>
        <xs:element name="PendingSocialActivityTagIds" type="t:ArrayOfStringsType"
minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="MimeType">
    <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="MimeTypeUTF8Type">
    <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="NetworkItemType">
    <xs:complexContent>
        <xs:extension base="t:ItemType">
            <xs:sequence>
                <xs:element name="DomainId" type="xs:int" minOccurs="0"/>
                <xs:element name="DomainTag" type="xs:string" minOccurs="0"/>
                <xs:element name="UserTileUrl" type="xs:string" minOccurs="0"/>
                <xs:element name="ProfileUrl" type="xs:string" minOccurs="0"/>
                <xs:element name="Settings" type="xs:int" minOccurs="0"/>
                <xs:element name="IsDefault" type="xs:boolean" minOccurs="0"/>
                <xs:element name="AutoLinkError" type="xs:string" minOccurs="0"/>
                <xs:element name="AutoLinkSuccess" type="xs:string" minOccurs="0"/>
                <xs:element name="UserEmail" type="xs:string" minOccurs="0"/>
                <xs:element name="ClientPublishSecret" type="xs:string" minOccurs="0"/>
                <xs:element name="ClientToken" type="xs:string" minOccurs="0"/>
                <xs:element name="ClientToken2" type="xs:string" minOccurs="0"/>
                <xs:element name="ContactSyncError" type="xs:string" minOccurs="0"/>
                <xs:element name="ContactSyncSuccess" type="xs:string" minOccurs="0"/>
                <xs:element name="ErrorOffers" type="xs:int" minOccurs="0"/>
                <xs:element name="FirstAuthErrorDates" type="xs:string" minOccurs="0"/>
                <xs:element name="LastVersionSaved" type="xs:int" minOccurs="0"/>
                <xs:element name="LastWelcomeContact" type="xs:string" minOccurs="0"/>
                <xs:element name="Offers" type="xs:int" minOccurs="0"/>
                <xs:element name="PsaLastChanged" type="xs:dateTime" minOccurs="0"/>
                <xs:element name="RefreshToken2" type="xs:string" minOccurs="0"/>
                <xs:element name="RefreshTokenExpiry2" type="xs:string" minOccurs="0"/>
                <xs:element name="SessionHandle" type="xs:string" minOccurs="0"/>
                <xs:element name="RejectedOffers" type="xs:int" minOccurs="0"/>
                <xs:element name="SyncEnabled" type="xs:boolean" minOccurs="0"/>
                <xs:element name="TokenRefreshLastAttempted" type="xs:dateTime" minOccurs="0"/>
                <xs:element name="TokenRefreshLastCompleted" type="xs:dateTime" minOccurs="0"/>
                <xs:element name="PsaState" type="xs:string" minOccurs="0"/>
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</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>

```

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        <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:element name="AddItemToMyCalendar" type="t:AddItemToMyCalendarType"/>
        <xs:element name="ProposeNewTime" type="t:ProposeNewTimeType"/>
    </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="0"/>
                <xs:maxInclusive value="1525252321"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:union>
</xs:simpleType>
<xs:complexType name="RoleMemberItemType">
    <xs:complexContent>
        <xs:extension base="t:ItemType">
            <xs:sequence>
                <xs:element name="MemberId" type="xs:string" minOccurs="0"/>
                <xs:element name="DisplayName" type="xs:string" minOccurs="0"/>
                <xs:element name="Type" type="t:RoleMemberTypeType" minOccurs="0"/>
                <xs:element name="RoleMemberTypeSpecified" type="xs:boolean" minOccurs="0"/>
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:simpleType name="RoleMemberTypeType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="None"/>
        <xs:enumeration value="Passport"/>
        <xs:enumeration value="Everyone"/>
        <xs:enumeration value="Email"/>
        <xs:enumeration value="Phone"/>
        <xs:enumeration value="SkypeId"/>
    </xs:restriction>
</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"/>
                <xs:element name="PostItem" type="t:PostItemType"/>
                <xs:element name="RoleMember" type="t:RoleMemberItemType"/>
                <xs:element name="Network" type="t:NetworkItemType"/>
                <xs:element name="Person" type="t:AbchPersonItemType"/>
            </xs:choice>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:complexType name="SmartResponseBaseType">

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```

<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>
    <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>

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```

<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:complexContent>
    <xs:extension base="t:EntityType">
      <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:extension>
  </xs:complexContent>
</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:complexContent>
    <xs:extension base="t:EntityType">
      <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:extension>
  </xs:complexContent>
</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:complexContent>
    <xs:extension base="t:EntityType">
      <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:extension>
  </xs:complexContent>
</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 updates to those products.

- Microsoft Exchange Server 2007
- Microsoft Exchange Server 2010
- Microsoft Exchange Server 2013
- Microsoft Exchange Server 2016
- Microsoft Exchange Server 2019

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms "SHOULD" or "SHOULD NOT" implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term "MAY" implies that the product does not follow the prescription.

[<1> Section 2.2.3.1](#): 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 **AddressEntityType** complex type.

[<3> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfAddressEntitiesType** complex type.

[<4> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfAddressesType** complex type.

[<5> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfContactsType** complex type.

[<6> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfEmailAddressEntitiesType** complex type.

[<7> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfEmailUsersType** complex type.

[<8> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfExtractedEmailAddresses** complex type.

[<9> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfMeetingSuggestionsType** complex type.

[<10> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfPhoneEntitiesType** complex type.

[<11> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfPhonesType** complex type.

[<12> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfOccurrenceRangesType** complex type.

[<13> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfTaskSuggestionsType** complex type.

[<14> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfUrlEntitiesType** complex type.

[<15> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfUrlsType** complex type.

[<16> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **ArrayOfContactsType** complex type.

[<17> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **EmailAddressEntityType** complex type.

[<18> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **EmailUserType** complex type.

[<19> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **EntityExtractionResultType** complex type.

[<20> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **EntityType** complex type.

[<21> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **FlagType** complex type.

[<22> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **MeetingSuggestionType** complex type.

[<23> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **OccurrencesRangeType** complex type.

[<24> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **PhoneType** complex type.

[<25> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **PhoneEntityType** complex type.

[<26> Section 2.2.4](#): Exchange 2007, Exchange 2010 and Exchange 2013 do not support the **RecurringMasterItemIdRangesType** complex type.

[<27> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **RightsManagementLicenseDataType** complex type.

[<28> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **TaskSuggestionType** complex type.

[<29> Section 2.2.4](#): Exchange 2007 and Exchange 2010 do not support the **UrlEntityType** complex type.

[<30> Section 2.2.4.1](#): Exchange 2007 and Exchange 2010 do not use the **AddressEntityType** complex type.

[<31> Section 2.2.4.2](#): Exchange 2007 and Exchange 2010 do not use the **ArrayOfAddressEntityType** complex type.

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9 Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as Major, Minor, or None.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements.
- A document revision that captures changes to protocol functionality.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

The changes made to this document are listed in the following table. For more information, please contact dochelp@microsoft.com.

| Section | Description | Revision class |
|--|---|----------------|
| 2.2.4.24 t:ItemType Complex Type | Updated description for WebClientEditFormQueryString. | Minor |

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