[MS-OXWSCORE]:
Core Items Web Service Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
07/15/2009	1.0	Major	Initial Availability.
11/04/2009	1.1.0	Minor	1.1.0
02/10/2010	1.1.0	None	Version 1.1.0 release
05/05/2010	1.1.1	Editorial	Revised and edited the technical content.
08/04/2010	1.1.1	No change	No changes to the meaning, language, or formatting of the technical content.
11/03/2010	2.0	Major	Significantly changed the technical content.

Contents

1   Introduction

This document specifies the Core Items Web Service protocol, which is responsible for creating, updating, and deleting items on the server. Clients use the SOAP protocol [SOAP1.1] to contact the Core Items service.

1.1   Glossary

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

carbon copy (Cc) recipient
Cc recipient
delivery receipt
HTTP
HTTPS
mailbox
meeting
message
MIME
Outbox folder
property
read receipt
recipient
SOAP body
SOAP fault
SOAP header
SOAP message
To recipient
Web Services Description Language (WSDL)
WSDL message
WSDL port type
XML
XML namespace
XML schema

The following terms are specific to this document:

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

1.2   References

1.2.1   Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information. Please check the archive site, http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624, as an additional source.

[MS-OXWSCDATA] Microsoft Corporation, "Common Web Service Data Types", July 2009.

[MS-OXWSCONT] Microsoft Corporation, "Contacts Web Service Protocol Specification", July 2009.

[MS-OXWSDLIST] Microsoft Corporation, "Distribution List Creation and Usage Web Service Protocol Specification", July 2009.

[MS-OXWSFOLD] Microsoft Corporation, "Folders and Folder Permissions Web Service Protocol Specification", July 2009.

[MS-OXWSMSG] Microsoft Corporation, "E-Mail Message Types Web Service Protocol Specification", July 2009.

[MS-OXWSMTGS] Microsoft Corporation, "Calendaring Web Service Protocol Specification", July 2009.

[MS-OXWSPOST] Microsoft Corporation, "Post Items Web Service Protocol Specification", July 2009.

[MS-OXWSTASK] Microsoft Corporation, "Tasks Web Service Protocol Specification", July 2009.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, http://www.ietf.org/rfc/rfc2119.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, http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

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

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

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

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

1.2.2   Informative References

[MS-OXGLOS] Microsoft Corporation, "Exchange Server Protocols Master Glossary", April 2008.

1.3   Overview

The Core Items Web Service protocol provides clients with the ability to create, update, and delete items on the server. Clients create items such as **messages**, tasks, and **meetings** by using the **CreateItem** operation (section 3.1.4.2), or get properties of an existing item by using the **GetItem** operation (section 3.1.4.4). Items can also be updated, deleted, moved, or copied on the server by using the **UpdateItem** operation (section 3.1.4.7), the **DeleteItem** operation (section 3.1.4.3), the **MoveItem** operation (section 3.1.4.5), and the **CopyItem** operation (section 3.1.4.1) respectively.

1.4   Relationship to Other Protocols

The Core Items Web Service protocol uses SOAP over **HTTP** and SOAP over **HTTPS**, as shown in the following figures.
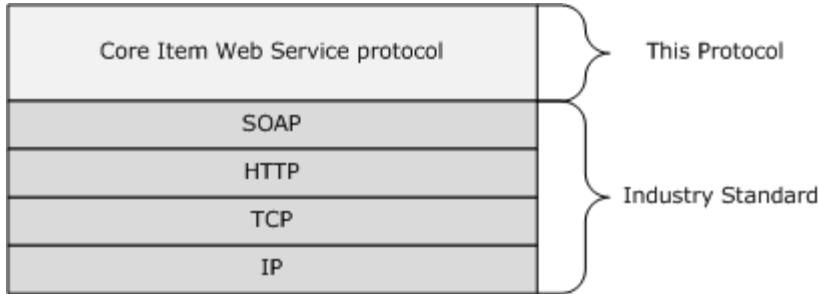
Figure 1: Message Tracking Web Service protocol HTTP stack
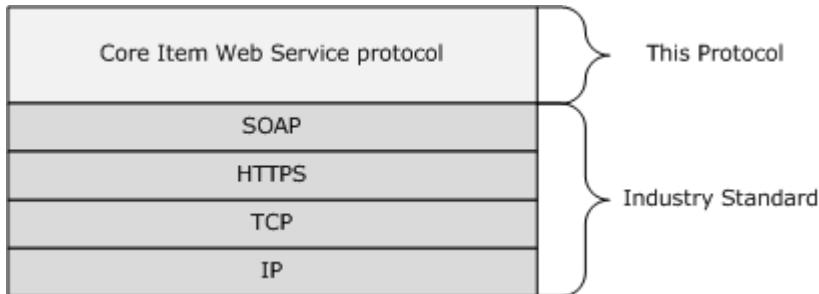
Figure 2: Message Tracking Web Service protocol HTTPS stack

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 [MS-OXWSCONT]

- Distribution List Creation and Usage Web Service protocol [MS-OXWSDLIST]

- E-Mail Message Types Web Service protocol [MS-OXWSMSG]

- Calendaring Web Service protocol [MS-OXWSMTGS]

- Post Items Web Service protocol [MS-OXWSPOST]

- Tasks Web Service protocol [MS-OXWSTASK]

1.5   Prerequisties/Preconditions

None.

1.6   Applicability Statement

The protocol specified in this document is applicable to environments that copy, create, delete, get, move, or update items by using Exchange Web Services.

1.7   Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

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

- **Protocol Versions:** This protocol specifies only one **WSDL** port type version.

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

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

- **Capability Negotiation:** None.

1.8   Vendor-Extensible Fields

None.

1.9   Standards Assignments

None.

2 Messages

2.1 Transport

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

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	[MS-OXWSCORE]
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1]
targetNamespace	http://schemas.microsoft.com/exchange/services/2006/messages	[MS-OXWSCORE]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
t	http://schemas.microsoft.com/exchange/services/2006/types	[MS-OXWSCORE]

2.2.2 Simple Types

The following table summarizes 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
t:DerivedItemIdType	Specifies the identifier of the recurring master of a recurring item.
t:ImportanceChoicesType	Specifies the levels of importance for an item.
t:ItemClassType	Specifies an item class.
t:ReminderMinutesBeforeStartType	Specifies the number of minutes before an event occurs when a reminder is displayed.

2.2.2.1   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>
```

2.2.2.2   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>
```

Enumeration

The following values are defined by the **ImportanceChoicesType** simple type:

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

2.2.2.3   t:ItemClassType Simple Type

The [ItemClassType](#) simple type specifies an item class.

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

2.2.2.4   t:ReminderMinutesBeforeStartType Simple Type

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

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

2.2.3   Complex Types

The following table summarizes 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
m:BaseMoveCopyItemType	Specifies the base type for the m:CopyItemType and m:MoveItemType complex types.
m:SendItemResponseType	Specifies a response to a call to the **SendItem** method, as specified in [MS-OXWSMSG] section 3.1.4.7.

Complex Type	Description
m:SendItemType	Specifies a request to send a message.
m:UpdateItemResponseMessageType	Specifies the status and result of a single call to the UpdateItem method.
t:ConflictResultsType	Specifies the number of conflicts in an UpdateItem response.
t:ItemType	Specifies a generic item in the Exchange store.
t:MimeContentType	Specifies the native **MIME** stream of an object that is represented in base64Binary format.
t:NonEmptyArrayOfBaseItemIdsType	Specifies a collection of items.
t:NonEmptyArrayOfInternetHeadersType	Specifies the collection of all Internet message headers that are contained in an item.
t:NonEmptyArrayOfResponseObjectsType	Specifies an array of response objects.
t:OccurrenceItemIdType	Specifies a single occurrence of a recurring item.
t:RecurringMasterItemIdType	Specifies a recurrence master item by identifying the identifiers of one of its related occurrence items.
t:ItemIdType	Specifies an item identifier of an item.
t:ReferenceItemResponseType	Specifies a referenced item for a response object.
t:SmartResponseBaseType	Specifies the base type for ReplyToItem, ReplyAllToItem, ForwardItem, and CancelCalendarItem response objects.
t:SmartResponseType	Specifies the base type for ReplyToItem, ReplyAllToItem, ForwardItem, and CancelCalendarItem response objects.

2.2.3.1   m:BaseMoveCopyItemType Complex Type

The **BaseMoveCopyItemType** complex type specifies the base type for the **CopyItemType** complex type (section 3.1.4.1.1.2) and the **MoveItemType** complex type (section 3.1.4.5.1.2).

```
<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>
```

Child Elements

Element	Type	Description
ToFolderId	t:TargetFolderIdType	Specifies an instance of the **TargetFolderIdType** class that specifies the folder to which to move or copy the items specified by the **ItemIds** property.
ItemIds	t:NonEmptyArrayOfBaseItemIdsType	Specifies an array of elements of type **BaseItemIdType** that specifies a set of items to move or copy.
ReturnNewItemIds	xs:boolean	Specifies a Boolean value that indicates whether the ItemID is to be returned for new items.<1>

2.2.3.2   m:SendItemResponseType Complex Type

The SendItemResponseType complex type specifies a response to a call to the **SendItem** method.

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

2.2.3.3   m:SendItemType Complex Type

The SendItemType complex type specifies a request to send a message.

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

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

Child Elements

Element	Type	Description
ItemIds	t:NonEmptyArrayOfBaseItemIdsType	Specifies an array of item identifiers that are used to determine the items to try to send.
SavedItemFolderId	t:TargetFolderIdType	Specifies the identity of the folder that contains a saved version of the sent item.

2.2.3.4   m:UpdateItemResponseMessageType Complex Type

The UpdateItemResponseMessageType complex type specifies the status and result of a single call to the UpdateItem operation.

```
<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>
```

Child Elements

Element	Type	Description
ConflictResults	t:ConflictResultsType	Specifies the number of conflicts in the result.

2.2.3.5   t:ConflictResultsType Complex Type

The ConflictResultsType complex type specifies the number of conflicts in an UpdateItem operation response.

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

Child Elements

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

2.2.3.6   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="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:sequence>
</xs:complexType>
```

Child Elements

Element	Type	Description
MimeContent	t:MimeContentType	Specifies an instance of the **MimeContentType** class that contains the native MIME stream of an object that is represented in base64Binary format.
ItemId	t:ItemIdType	Specifies an instance of the **ItemIdType** class that represents the unique identifier and change key of an item in the Exchange store.
ParentFolderId	t:FolderIdType	Specifies an instance of the **FolderIdType** class that represents the identifier of the parent folder that contains the item or folder.
ItemClass	t:ItemClassType	Specifies a string value that indicates the message class of the item.
Subject	xs:string	Specifies a string value that represents the subject property of items. The subject is limited to 255 characters.
Sensitivity	t:SensitivityChoicesType	Specifies one of the valid **SensitivityChoicesType** values that indicates the sensitivity level of an item.
Body	t:BodyType	Specifies the body content of an item.
Attachments	t:NonEmptyArrayOfAttachmentsType	Specifies an **AttachmentType** array that contains the items or files that are attached to an item.
DateTimeReceived	xs:dateTime	Specifies the date and time that an item in a **mailbox** was received.
Size	xs:int	Specifies an integer value that represents the size in bytes of an item.
Categories	t:ArrayOfStringsType	Specifies a string array that identifies the categories to which an item in the mailbox belongs.
Importance	t:ImportanceChoicesType	Specifies one of the valid **ImportanceChoicesType** values to indicate the

Element	Type	Description
		importance of the 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	Specifies a Boolean value that indicates whether an item has been submitted to the **Outbox folder**.
IsDraft	xs:boolean	Specifies a Boolean value that indicates whether the item has been sent.
IsFromMe	xs:boolean	Specifies a Boolean value that indicates whether a user sent an item to him or herself.
IsResend	xs:boolean	Specifies a Boolean value that indicates whether the item has previously been sent.
IsUnmodified	xs:boolean	Specifies a Boolean value that indicates whether the item has been modified.
InternetMessageHeaders	t:NonEmptyArrayOfInternetHeadersType	Specifies an array of the type **InternetHeaderType** that represents the collection of all Internet message headers that are contained in an item in a mailbox.
DateTimeSent	xs:dateTime	Specifies the date and time when an item in a mailbox was sent.
DateTimeCreated	xs:dateTime	Specifies the date and time that an item in the mailbox was created.
ResponseObjects	t:NonEmptyArrayOfResponseObjectsType	Specifies an array of the type **ResponseObjectType** that contains a collection of all the response objects that are associated with an item.
ReminderDueBy	xs:dateTime	Specifies an instance of the **DateTime** structure that represents the date and time when the event occurs. This is used by the **ReminderMinutesBeforeStart** property to determine when the reminder is displayed.

Element	Type	Description
ReminderIsSet	xs:boolean	Specifies a Boolean value that indicates whether a reminder has been set for an item.
ReminderMinutesBeforeStart	t:ReminderMinutesBeforeStartType	Specifies a string value that indicates the number of minutes before an event occurs when a reminder is displayed.
DisplayCc	xs:string	Specifies the display string that is used for the contents of the Cc box. This is the concatenated string of all **Cc recipient** display names.
DisplayTo	xs:string	Specifies the display string that is used for the contents of the To box. This is the concatenated string of all **To recipient** display names.
HasAttachments	xs:boolean	Specifies a Boolean value that indicates whether the item has at least one attachment.
ExtendedProperty	t:ExtendedPropertyType	Specifies an array of the type **ExtendedPropertyType** that identifies extended MAPI properties.
Culture	xs:language	Specifies the culture for a given item in a mailbox.
EffectiveRights	t:EffectiveRightsType	Specifies an instance of the **EffectiveRightsType** class that represents the client's rights based on the permission settings for the item or folder.
LastModifiedName	xs:string	Specifies a string value that contains the name of the user who last modified the item.
LastModifiedTime	xs:dateTime	Specifies an instance of the **DateTime** structure that represents the date and time that the item was last modified.
IsAssociated	xs:boolean	Specifies a value that indicates whether this is an associated item.
WebClientReadFormQueryString	xs:string	Specifies the query string that should be appended to the Web client URL to open this item by using the appropriate read form in a Web browser.

Element	Type	Description
WebClientEditFormQueryString	xs:string	Specifies the query string that should be appended to the Web client URL to open this item by using the appropriate edit form in a Web browser.
ConversationId	t:ItemIdType	Specifies the ID of the conversation that this item is part of.
UniqueBody	t:BodyType	Specifies the body part that is unique to the conversation that this item is part of.

2.2.3.7 t:MimeContentType Complex Type

The MimeContentType complex type specifies the native MIME stream of an object that is represented in base64Binary format.

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

Attributes

Name	Type	Description
CharacterSet	xs:string	Specifies the International Standards Organization (ISO) name of the character set that is used in the MIME message.

2.2.3.8 t:NonEmptyArrayOfBaseItemIdsType Complex Type

The NonEmptyArrayOfBaseItemIdsType complex type specifies a collection of items.

```
<xs:complexType name="NonEmptyArrayOfBaseItemIdsType">
  <xs:choice
    minOccurs="1"
    maxOccurs="unbounded"
  >
    <xs:element name="ItemId"
      type="t:ItemIdType"
    />
    <xs:element name="OccurrenceItemId"
```

```
      type="t:OccurrenceItemIdType"
     />
    <xs:element name="RecurringMasterItemId"
      type="t:RecurringMasterItemIdType"
     />
   </xs:choice>
  </xs:complexType>
```

Child Elements

Element	Type	Description
ItemId	t:ItemIdType	Specifies the item identifier.
OccurrenceItemId	t:OccurrenceItemIdType	Specifies a single occurrence of a recurring item.
RecurringMasterItemId	t:RecurringMasterItemIdType	Specifies a recurrence master item by identifying the identifiers of one of its related occurrence items.

2.2.3.9   t:NonEmptyArrayOfInternetHeadersType Complex Type

The t: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>
```

Child Elements

Element	Type	Description
InternetMessageHeader	t:InternetHeaderType	Specifies a single Internet message header.

2.2.3.10   t:NonEmptyArrayOfResponseObjectsType Complex Type

The NonEmptyArrayOfResponseObjectsType complex type specifies an array of response objects.

```
<xs:complexType name="NonEmptyArrayOfResponseObjectsType">
  <xs:choice
    maxOccurs="unbounded"
    minOccurs="0"
  >
    <xs:element name="AcceptItem"
      type="t:AcceptItemType"
```

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

Child Elements

Element	Type	Description
AcceptItem	t:AcceptItemType	Specifies an Accept reply to a meeting request.
TentativelyAcceptItem	t:TentativelyAcceptItemType	Specifies a Tentative reply to a meeting request.
DeclineItem	t:DeclineItemType	Specifies a Decline reply to a meeting request.
ReplyToItem	t:ReplyToItemType	Specifies a reply to the sender of an item.
ForwardItem	t:ForwardItemType	Specifies an server store item to forward to **recipients**.
ReplyAllToItem	t:ReplyAllToItemType	Specifies a reply to the sender and all identified recipients of an item in the server store.
CancelCalendarItem	t:CancelCalendarItemType	Specifies the response object that is used to

Element	Type	Description
		cancel a meeting.
RemoveItem	t:RemoveItemType	Specifies a response object that is used to remove a meeting item when a MeetingCancellation message is received.
SuppressReadReceipt	t:SuppressReadReceiptType	Specifies to suppress read receipts.
PostReplyItem	t:PostReplyItemType	Specifies a reply to a post item.
AcceptSharingInvitation	t:AcceptSharingInvitationType	Specifies to accept a sharing invitation.

2.2.3.11   t:OccurrenceItemIdType Complex Type

The OccurrenceItemIdType complex type specifies a single occurrence of a recurring item.

```
<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>
```

Attributes

Name	Type	Description
RecurringMasterId	t:DerivedItemIdType	Specifies the identifier of the recurring master of a recurring item.
ChangeKey	xs:string	Specifies a specific version of a single occurrence of a recurring master item.
InstanceIndex	xs:int	Specifies the index of the item occurrence.

2.2.3.12   t:RecurringMasterItemIdType Complex Type

The t: t:RecurringMasterItemIdType complex type specifies a recurrence master item by identifying the identifiers of one of its related occurrence items.

```
<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>
```

Attributes

Name	Type	Description
OccurrenceId	t:DerivedItemIdType	Specifies a single occurrence of a recurring master item.
ChangeKey	xs:string	Specifies a specific version of a single occurrence of a recurring master item.

2.2.3.13   t:ItemIdType Complex Type

The ItemIdType complex type specifies an item identifier of an item.

```
<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>
```

Attributes

Name	Type	Description
Id	xs:string	Specifies an item identifier.

Name	Type	Description
ChangeKey	xs:string	Specifies a change key.

2.2.3.14   t:ReferenceItemResponseType Complex Type

The t:ReferenceItemResponseType complex type specifies a referenced item for a response object.

```
<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>
```

Child Elements

Element	Type	Description
ReferenceItemId	t:ItemIdType	Specifies the referenced item identifier.

Attributes

Name	Type	Description
ObjectName	xs:string	Specifies the name of the reply object class as a string

2.2.3.15   t:SmartResponseBaseType Complex Type

The **SmartResponseBaseType** complex type specifies the base type for **ReplyToItemType** ([MS-OXWSCDATA] section 2.2.3.51), **ReplyAllToItemType** ([MS-OXWSCDATA] section 2.2.3.49), **ForwardItemType** ([MS-OXWSCDATA] section 2.2.3.31), and **CancelCalendarItemType** ([MS-OXWSCDATA] section 2.2.3.8) complex type response objects.

```
<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>
```

Child Elements

Element	Type	Description
Subject	xs:string	Specifies the subject.
Body	t:BodyType	Specifies the body content of an item.
ToRecipients	t:ArrayOfRecipientsType	Specifies a collection of recipients of an e-mail message. This property is required for sending a message.

Element	Type	Description
CcRecipients	t:ArrayOfRecipientsType	Specifies a collection of **carbon copy (Cc) recipients** of an e-mail message.
BccRecipients	t:ArrayOfRecipientsType	Specifies a collection of **blind carbon copy (Bcc) recipients** of an e-mail message.
IsReadReceiptRequested	xs:boolean	Specifies whether a **read receipt** is requested.
IsDeliveryReceiptRequested	xs:boolean	Specifies whether a **delivery receipt** is requested.
From	t:SingleRecipientType	Specifies the addressee from whom a message was sent.
ReferenceItemId	t:ItemIdType	Specifies the item identifier that is related to a response object.

Attributes

Name	Type	Description
ObjectName	xs:string	Specifies the name of the reply object class as an English string.

2.2.3.16   t:SmartResponseType Complex Type

The **SmartResponseType** complex type specifies the base type for **ReplyToItemType** ([MS-OXWSCDATA] section 2.2.3.51), **ReplyAllToItemType** ([MS-OXWSCDATA] section 2.2.3.49), **ForwardItemType** ([MS-OXWSCDATA] section 2.2.3.31), and **CancelCalendarItemType** ([MS-OXWSCDATA] section 2.2.3.8) complex type response objects.

```
<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>
```

Child Elements

Element	Type	Description
NewBodyContent	t:BodyType	Specifies the new body content of a message response object.

2.2.4 Elements

The following table summarizes 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	Description
t:BaseItemId	Specifies the base class for IDs that represent items in a mailbox.

2.2.4.1 t:BaseItemId Element

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

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

2.2.5 Attributes

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

2.2.6 Groups

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

2.2.7 Attribute Groups

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

2.2.8 Messages

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

3   Protocol Details

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

3.1   ExchangeServicePortType Server Details

The Core Items Web Service protocol defines a single port type with six operations.

Operation	Description
GetItem	Gets items on the server.
CreateItem	Creates items on the server.
DeleteItem	Deletes items on the server.
UpdateItem	Updates items on the server.
MoveItem	Moves items on the server.
CopyItem	Copies items on the server.

3.1.1   Abstract Data Model

The Core Items Web Service protocol is a stateless protocol.

3.1.2   Timers

None.

3.1.3   Initialization

None.

3.1.4   Message Processing Events and Sequencing

This protocol includes the operations that are listed in the following table.

Operation	Description
GetItem	Gets items on the server.
CreateItem	Creates items on the server.
DeleteItem	Deletes items on the server.
UpdateItem	Updates items on the server.
MoveItem	Moves items on the server.
CopyItem	Copies items on the server.

3.1.4.1 CopyItem

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

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

Request

Message Format	Description
tns:CopyItemSoapIn	Specifies the **SOAP message** that requests the copied item.

Response

Message Format	Description
tns:CopyItemSoapOut	Specifies the SOAP message that is returned by the server in response.

3.1.4.1.1 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.1.1.1 m:CopyItemResponseType Complex Type

The CopyItemResponseType complex type specifies the response that is returned by the CopyItem operation.

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

3.1.4.1.1.2 m:CopyItemType Complex Type

The CopyItemType complex type specifies an operation to copy items in a mailbox.

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

3.1.4.1.2 Elements

The following XML schema element definitions are specific to this operation.

3.1.4.1.2.1 CopyItem Element

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

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

3.1.4.1.2.2 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 Messages

The following **WSDL message** definitions are specific to this operation.

3.1.4.1.3.1 tns:CopyItemSoapIn Message

The CopyItemSoapIn message contains four parts, as described in the following table.

Part Name	Element/Type	Description
request	tns:CopyItem	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies the user whom the client application is impersonating.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	t:RequestServerVersion	Specifies the schema version for the **CopyItem** operation (section 3.1.4.1) request.

3.1.4.1.3.2 tns:CopyItemSoapOut Message

The CopyItemSoapOut message contains two parts, as described in the following table.

Part Name	Element/Type	Description
CopyItemResult	tns:CopyItemResponse	Specifies the response message.
ServerVersion	t:ServerVersionInfo	Specifies the schema version for the CopyItemSoapOut message.

3.1.4.2 CreateItem

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

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

Request

Message Format	Description
tns:CreateItemSoapIn	Specifies the SOAP message that requests the created item.

Response

Message Format	Description
tns:CreateItemSoapOut	Specifies the SOAP message that is returned by the server in response.

3.1.4.2.1 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.2.1.1 m:CreateItemResponseType Complex Type

The CreateItemResponseType complex type specifies a response to a CreateItem operation request.

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

3.1.4.2.1.2 m:CreateItemType Complex Type

The CreateItemType complex type specifies a request to create an item or response object.

```
<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>
```

Child Elements

Element	Type	Description
SavedItemFolderId	t:TargetFolderIdType	Specifies the folder in which new items are saved.
Items	t:NonEmptyArrayOfAllItemsType	Specifies the collection of items to create.

Attributes

Name	Type	Description
MessageDisposition	t:MessageDispositionType	Specifies an enumeration that describes how an item is handled after it is created.
SendMeetingInvitations	t:CalendarItemCreateOrDeleteOperationType	Specifies an enumeration that describes how meeting requests are handled after they are created.

3.1.4.2.2 Elements

The following XML schema element definitions are specific to this operation.

3.1.4.2.2.1 CreateItem Element

The CreateItem element specifies a request to create an item.

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

3.1.4.2.2.2 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   Messages

The following **WSDL message** definitions are specific to this operation.

3.1.4.2.3.1   tns:CreateItemSoapIn Message

The tns:CreateItemSoapIn message contains five parts, as described in the following table.

Part Name	Element/Type	Description
request	tns:CreateItem	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies the user whom the client application is impersonating.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	t:RequestServerVersion	Specifies the schema version for the **CreateItem** operation (section 3.1.4.2) request.
TimeZoneContext	t:TimeZoneContext	Specifies the time zone to use for all responses from the server. All times that are returned from the server will be converted to the specified time zone.

3.1.4.2.3.2   tns:CreateItemSoapOut Message

The CreateItemSoapOut message contains two parts, as described in the following table.

Part Name	Element/Type	Description
CreateItemResult	tns:CreateItemResponse	Specifies the response message.
ServerVersion	t:ServerVersionInfo	Specifies the schema version for the CreateItemSoapOut message.

3.1.4.3   DeleteItem

The DeleteItem operation deletes items on the server.

Request

Message Format	Description
tns:DeleteItemSoapIn	Specifies the SOAP message that requests the deleted item.

Response

Message Format	Description
tns:DeleteItemSoapOut	Specifies the SOAP message that is returned by the server in response.

3.1.4.3.1 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.3.1.1 m:DeleteItemResponseType Complex Type

The DeleteItemResponseType complex type specifies a response to a single DeleteItem operation request.

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

3.1.4.3.1.2 m:DeleteItemType Complex Type

The DeleteItemType complex type specifies a request to delete items.

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

Child Elements

Element	Type	Description
ItemIds	t:NonEmptyArrayOfBaseItemIdsType	Specifies the collection of items to delete.

Attributes

Name	Type	Description
DeleteType	t:DisposalType	Specifies an enumeration value that describes how an item is deleted.
SendMeetingCancellations	t:CalendarItemCreateOrDeleteOperationType	Specifies an enumeration that describes how cancellations are handled for deleted meetings.
AffectedTaskOccurrences	t:AffectedTaskOccurrencesType	Specifies an enumeration value that indicates whether a task instance or task master is deleted.

3.1.4.3.2   Elements

The following XML schema element definitions are specific to this operation.

3.1.4.3.2.1   DeleteItem Element

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

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

3.1.4.3.2.2   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   Messages

The following **WSDL message** definitions are specific to this operation.

3.1.4.3.3.1   tns:DeleteItemSoapIn Message

The DeleteItemSoapIn message contains four parts, as described in the following table.

Part Name	Element/Type	Description
request	tns:DeleteItem	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies the user whom the client application is impersonating.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	t:RequestServerVersion	Specifies the schema version for the **DeleteItem** operation (section 3.1.4.3) request.

3.1.4.3.3.2   tns:DeleteItemSoapOut Message

The DeleteItemSoapOut message contains two parts, as described in the following table.

Part Name	Element/Type	Description
DeleteItemResult	tns:DeleteItemResponse	Specifies the response message.
ServerVersion	t:ServerVersionInfo	Specifies the schema version for the DeleteItemSoapOut message.

3.1.4.4   GetItem

The GetItem operation gets items on the server.

Request

Message Format	Description
tns:GetItemSoapIn	Specifies the SOAP message that requests the item.

Response

Message Format	Description
tns:GetItemSoapOut	Specifies the SOAP message that is returned by the server in response.

3.1.4.4.1   Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.4.1.1   m:GetItemResponseType Complex Type

The GetItemResponseType complex type specifies a response to a GetItem operation request.

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

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

3.1.4.4.1.2   m:GetItemType Complex Type

The GetItemType complex type specifies a request to get items from a mailbox.

```
<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>
```

Child Elements

Element	Type	Description
ItemShape	t:ItemResponseShapeType	Specifies the response shape of the GetItem operation response.
ItemIds	t:NonEmptyArrayOfBaseItemIdsType	Specifies the collection of items to get.

3.1.4.4.2   Elements

The following XML schema element definitions are specific to this operation.

3.1.4.4.2.1   GetItem Element

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

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

3.1.4.4.2.2   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 Messages

The following **WSDL message** definitions are specific to this operation.

3.1.4.4.3.1 tns:GetItemSoapIn Message

The GetItemSoapIn message contains five parts, as described in the following table.

Part Name	Element/Type	Description
request	tns:GetItem	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies the user whom the client application is impersonating.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	t:RequestServerVersion	Specifies the schema version for the **GetItem** operation (section 3.1.4.4) request.
TimeZoneContext	t:TimeZoneContext	Specifies the time zone to use for all responses from the server. All times that are returned from the server will be converted to the specified time zone.

3.1.4.4.3.2 tns:GetItemSoapOut Message

The GetItemSoapOut message contains two parts, as described in the following table.

Part Name	Element/Type	Description
GetItemResult	tns:GetItemResponse	Specifies the response message.
ServerVersion	t:ServerVersionInfo	Specifies the schema version for the GetItemSoapOut message.

3.1.4.5 MoveItem

The MoveItem operation moves items on the server.

Request

Message Format	Description
tns:MoveItemSoapIn	Specifies the SOAP message that requests the moved item.

Response

Message Format	Description
tns:MoveItemSoapOut	Specifies the SOAP message that is returned by the server in response.

3.1.4.5.1 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.5.1.1 m:MoveItemResponseType Complex Type

The **MoveItemResponseType** complex type specifies a response to a call to the **MoveItem** operation (section 3.1.4.5).

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

3.1.4.5.1.2 m:MoveItemType Complex Type

The MoveItemType complex type specifies an operation to move items in a mailbox.

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

3.1.4.5.2 Elements

The following XML schema element definitions are specific to this operation.

3.1.4.5.2.1 MoveItem Element

The MoveItem element specifies a request to move an item.

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

3.1.4.5.2.2 MoveItemResponse Element

The <MoveItemResponse> element specifies a response to a **MoveItem** operation (section 3.1.4.5) request.

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

3.1.4.5.3 Messages

The following **WSDL message** definitions are specific to this operation.

3.1.4.5.3.1 tns:MoveItemSoapIn Message

The MoveItemSoapIn message contains four parts, as described in the following table.

Part Name	Element/Type	Description
request	tns:MoveItem	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies the user whom the client application is impersonating.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	t:RequestServerVersion	Specifies the schema version for the **MoveItem** (section 3.1.4.5.2.1) operation request.

3.1.4.5.3.2 tns:MoveItemSoapOut Message

The MoveItemSoapOut message contains two parts, as described in the following table.

Part Name	Element/Type	Description
MoveItemResult	tns:MoveItemResponse (section 3.1.4.5.2.2)	Specifies the response message.
ServerVersion	t:ServerVersionInfo	Specifies the schema version for the MoveItemSoapOut message.

3.1.4.6 SendItem

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

Request

Message Format	Description
tns:SendItemSoapIn	Specifies the SOAP message that requests the item to send.

Response

Message Format	Description
tns:SendItemSoapOut	Specifies the SOAP message that is returned by the server in response.

3.1.4.6.1 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.6.1.1 m:SendItemResponseType Complex Type

The m:SendItemResponseType complex type specifies a response to a SendItem operation (section 3.1.4.6) request.

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

3.1.4.6.1.2 m:SendItemType Complex Type

The SendItemType complex type specifies a request to send messages and post items on the server.

```
<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>
```

Child Elements

Element	Type	Description
ItemIds	t:NonEmptyArrayOfBaseItemIdsType	Specifies an array of item identifiers that are used to determine the items to try to send.
SavedItemFolderId	t:TargetFolderIdType	Specifies the identity of the folder that

Element	Type	Description
		contains a saved version of the sent item.

Attributes

Name	Type	Description
SaveItemToFolder	xs:boolean	Specifies a Boolean value that specifies whether a copy of the sent item is saved.

3.1.4.6.2 Elements

The following XML schema element definitions are specific to this operation.

3.1.4.6.2.1 SendItem Element

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

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

3.1.4.6.2.2 SendItemResponse Element

The SendItemResponse element specifies a response to a SendItem operation (section 3.1.4.6) request.

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

3.1.4.6.3 Messages

The following **WSDL message** definitions are specific to this operation.

3.1.4.6.3.1 tns:SendItemSoapIn Message

The SendItemSoapIn message contains four parts, as described in the following table.

Part Name	Element/Type	Description
request	tns:SendItem	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies the user whom the client application is impersonating.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	t:RequestServerVersion	Specifies the schema version for the **MoveItem** operation

Part Name	Element/Type	Description
		(section 3.1.4.5.2.1) request.

3.1.4.6.3.2   tns:SendItemSoapOut Message

The SendItemSoapOut message contains two parts, as described in the following table.

Part Name	Element/Type	Description
SendItemResult	tns:SendItemResponse	Specifies the response message.
ServerVersion	t:ServerVersionInfo	Specifies the schema version for the SendItemSoapOut message.

3.1.4.7   UpdateItem

The UpdateItem operation updates items on the server.

Request

Message Format	Description
tns:UpdateItemSoapIn	Specifies the SOAP message that requests the updated item.

Response

Message Format	Description
tns:UpdateItemSoapOut	Specifies the SOAP message that is returned by the server in response.

3.1.4.7.1   Simple Types

The following XML schema simple type definitions are specific to this operation.

3.1.4.7.1.1   t:ConflictResolutionType Simple Type

The ConflictResolutionType simple type specifies how a conflict is handled during an UpdateItem operation (section 3.1.4.7).

```
<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>
```

Enumeration

The following values are defined by the **ConflictResolutionType** simple type:

Value	Description
AlwaysOverwrite	If there is a conflict, the UpdateItem operation (section 3.1.4.7) will overwrite information.
AutoResolve	The UpdateItem operation (section 3.1.4.7) 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 Sensitivity property from Normal to Confidential. Then user B sets the value to Public. In this example, the Confidential setting is retained and user B's update is ignored.
NeverOverwrite	If conflict exists, the UpdateItem operation (section 3.1.4.7) fails and an error is returned.

3.1.4.7.2 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.7.2.1 m:UpdateItemResponseType Complex Type

The UpdateItemResponseType complex type specifies the response to a call to the UpdateItem operation (section 3.1.4.7).

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

3.1.4.7.2.2 m:UpdateItemType Complex Type

The UpdateItemType complex type specifies a request to update a set of items.

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

```
          <xs:element name="ItemChanges"
            type="t:NonEmptyArrayOfItemChangesType"
           />
       </xs:sequence>
       <xs:attribute name="ConflictResolution"
         type="t:ConflictResolutionType"
         use="required"
        />
       <xs:attribute name="MessageDisposition"
         type="t:MessageDispositionType"
         use="optional"
        />
       <xs:attribute name="SendMeetingInvitationsOrCancellations"
          type="t:CalendarItemUpdateOperationType"
          use="optional"
        />
     </xs:extension>
   </xs:complexContent>
 </xs:complexType>
```

Child Elements

Element	Type	Description
SavedItemFolderId	t:TargetFolderIdType	Specifies the target folder for saved items.
ItemChanges	t:NonEmptyArrayOfItemChangesType	Specifies an array of item changes.

Attributes

Name	Type	Description
ConflictResolution	t:ConflictResolutionType	Specifies an enumeration value that represents the type of conflict resolution that is performed during an update.
MessageDisposition	t:MessageDispositionType	Specifies an enumeration value that describes how a message item is handled after it is updated.
SendMeetingInvitationsOrCancellations	t:CalendarItemUpdateOperationType	Specifies an enumeration value that describes how a calendar item is handled after it is updated.

3.1.4.7.2.3   t:AppendToItemFieldType Complex Type

The AppendToItemFieldType complex type specifies data to append to a single property of an item during and UpdateItem operation (section 3.1.4.7).

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

Child Elements

Element	Type	Description
Item	t:ItemType	Specifies a generic item.
Message	t:MessageType	Specifies an e-mail message or non-IPM.Note item.
CalendarItem	t:CalendarItemType	Specifies a calendar item.
Contact	t:ContactItemType	Specifies a contact item.

Element	Type	Description
DistributionList	t:DistributionListType	Specifies a distribution list.
MeetingMessage	t:MeetingMessageType	Specifies a meeting.
MeetingRequest	t:MeetingRequestMessageType	Specifies a meeting request.
MeetingResponse	t:MeetingResponseMessageType	Specifies a meeting response.
MeetingCancellation	t:MeetingCancellationMessageType	Specifies a meeting cancellation.
Task	t:TaskType	Specifies a task.
PostItem	t:PostItemType	Specifies a post item.

3.1.4.7.2.4 t:ChangeDescriptionType Complex Type

The **ChangeDescriptionType** complex type specifies the base type that is used to describe changes in **UpdateFolder** operations ([MS-OXWSFOLD] section 3.1.4.8) and **UpdateItem** operations (section 3.1.4.7).

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

Child Elements

Element	Type	Description
t:Path	t:Path	Specifies a substitution group that specifies the property to update.

3.1.4.7.2.5 t:DeleteItemFieldType Complex Type

The DeleteItemFieldType complex type specifies a property to delete from an item.

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

3.1.4.7.2.6   t:ItemChangeDescriptionType Complex Type

The ItemChangeDescriptionType complex type specifies data that describes changes that are applied by using the UpdateItem operation (section 3.1.4.7).

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

3.1.4.7.2.7   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>
```

Child Elements

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

Element	Type	Description
		properties.

3.1.4.7.2.8 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>
```

Child Elements

Element	Type	Description
AppendToItemField	t:AppendToItemFieldType	Specifies data to append to a single property of an item during an UpdateItem operation (section 3.1.4.7).
SetItemField	t:SetItemFieldType	Specifies an update to a single property of an item in an UpdateItem operation (section 3.1.4.7).
DeleteItemField	t:DeleteItemFieldType	Specifies an operation to delete a given property from an item during an UpdateItem (section 3.1.4.7) call.

3.1.4.7.2.9 t:NonEmptyArrayOfItemChangesType Complex Type

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

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

Child Elements

Element	Type	Description
ItemChange	t:ItemChangeType	Specifies an item identifier and the updates to apply to the item.

3.1.4.7.2.10   t:SetItemFieldType Complex Type

The SetItemFieldType complex type specifies an update to a single property of an item.

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

Child Elements

Element	Type	Description
Item	t:ItemType	Specifies a generic item.
Message	t:MessageType	Specifies an e-mail message or non-IPM.Note item.
CalendarItem	t:CalendarItemType	Specifies a calendar item.
Contact	t:ContactItemType	Specifies a contact item.
DistributionList	t:DistributionListType	Specifies a distribution list.
MeetingMessage	t:MeetingMessageType	Specifies a meeting.
MeetingRequest	t:MeetingRequestMessageType	Specifies a meeting request.
MeetingResponse	t:MeetingResponseMessageType	Specifies meeting response.
MeetingCancellation	t:MeetingCancellationMessageType	Specifies meeting cancellation.
Task	t:TaskType	Specifies a task.
PostItem	t:PostItemType	Specifies a post item.

3.1.4.7.3   Elements

The following XML schema element definitions are specific to this operation.

3.1.4.7.3.1   UpdateItem Element

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

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

3.1.4.7.3.2   UpdateItemResponse Element

The UpdateItemResponse element specifies a response to an UpdateItem operation (section 3.1.4.7) request.

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

3.1.4.7.4   Messages

The following **WSDL message** definitions are specific to this operation.

3.1.4.7.4.1   tns:UpdateItemSoapIn Message

The UpdateItemSoapIn message contains five parts, as described in the following table.

Part Name	Element/Type	Description
request	tns:UpdateItem	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies the user whom the client application is impersonating.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	t:RequestServerVersion	Specifies the schema version for the UpdateItem operation (section 3.1.4.7) request.
TimeZoneContext	t:TimeZoneContext	Specifies the time zone to use for all responses from the server. All times that are returned from the server will be converted to the specified time zone.

3.1.4.7.4.2 tns:UpdateItemSoapOut Message

The UpdateItemSoapOut message contains two parts, as described in the following table.

Part Name	Element/Type	Description
UpdateItemResult	tns:UpdateItemResponse	Specifies the response message.
ServerVersion	t:ServerVersionInfo	Specifies the schema version for the UpdateItemSoapOut message.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

3.2 Client 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.

3.2.1 Abstract Data Model

None.

3.2.2 Timers

None.

3.2.3 Initialization

None.

3.2.4 Message Processing Events and Sequencing

None.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

None.

4 Protocol Examples

None.

5   Security

5.1   Security Considerations for Implementers

The Core Items Web Service protocol does not use any additional security mechanisms.

5.2   Index of Security Parameters

None.

6 Appendix A: Full WSDL

The following table lists the **XML** files that are required to implement the functionality that is specified in this document. The contents of each file are included in this section.

File name	Description	Section
MS-OXWSCORE.wsdl	Contains the WSDL for the implementation of this protocol.	6.1
MS-OXWSCORE-types.xsd	Contains the XML schema type definitions used in this protocol.	6.2
MS-OXWSCORE-messages.xsd	Contains the XML schema message definitions used in this protocol.	6.3

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.

6.1 WSDL

This section contains 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="Exchange2010"
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="Exchange2010"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
            <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
            <!-- Add global elements and types from types.xsd -->
        </xs:schema>
    </wsdl:types>
    <wsdl:portType name="ExchangeServicePortType">
        <wsdl:operation name="GetItem">
            <wsdl:input message="tns:GetItemSoapIn"/>
            <wsdl:output message="tns:GetItemSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="CreateItem">
```

```
            <wsdl:input message="tns:CreateItemSoapIn"/>
            <wsdl:output message="tns:CreateItemSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="DeleteItem">
            <wsdl:input message="tns:DeleteItemSoapIn"/>
            <wsdl:output message="tns:DeleteItemSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="UpdateItem">
            <wsdl:input message="tns:UpdateItemSoapIn"/>
            <wsdl:output message="tns:UpdateItemSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="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:portType>
    <wsdl:binding name="ExchangeServiceBinding" type="tns:ExchangeServicePortType">
        <wsdl:documentation>
            <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0"
 xmlns:wsi="http://ws-i.org/schemas/conformanceClaim/"/>
        </wsdl:documentation>
        <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
        <wsdl:operation name="GetItem">
            <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetItem"/>
            <wsdl:input>
                <soap:header message="tns:GetItemSoapIn" part="Impersonation"
use="literal"/>
                <soap:header message="tns:GetItemSoapIn" part="MailboxCulture"
use="literal"/>
                <soap:header message="tns:GetItemSoapIn" part="RequestVersion"
use="literal"/>
                <soap:header message="tns:GetItemSoapIn" part="TimeZoneContext"
use="literal"/>
                <soap: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="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:binding>
        <wsdl:message name="GetItemSoapIn">
            <wsdl:part name="request" element="tns:GetItem"/>
            <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
            <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
            <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
            <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
        </wsdl:message>
        <wsdl:message name="GetItemSoapOut">
            <wsdl:part name="GetItemResult" element="tns:GetItemResponse"/>
            <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
        </wsdl:message>
        <wsdl:message name="CreateItemSoapIn">
            <wsdl:part name="request" element="tns:CreateItem"/>
            <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
            <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
            <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
            <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
        </wsdl:message>
        <wsdl:message name="CreateItemSoapOut">
            <wsdl:part name="CreateItemResult" element="tns:CreateItemResponse"/>
            <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
        </wsdl:message>
        <wsdl:message name="DeleteItemSoapIn">
            <wsdl:part name="request" element="tns:DeleteItem"/>
            <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
            <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
            <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
        </wsdl:message>
        <wsdl:message name="DeleteItemSoapOut">
            <wsdl:part name="DeleteItemResult" element="tns:DeleteItemResponse"/>
            <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
        </wsdl:message>
        <wsdl:message name="UpdateItemSoapIn">
            <wsdl:part name="request" element="tns:UpdateItem"/>
            <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
            <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
            <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
            <wsdl:part name="TimeZoneContext" element="t:TimeZoneContext"/>
```

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

6.2   Types Schema

This section contains 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 6.3

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified" version="Exchange2010" id="types">
    <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
    <xs:include schemaLocation="MS-OXWSCDATA-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"/>
```

```xml
                        <xs:element name="DistributionList" type="t:DistributionListType"/>
                        <xs:element name="MeetingMessage" type="t:MeetingMessageType"/>
                        <xs:element name="MeetingRequest"
  type="t:MeetingRequestMessageType"/>
                        <xs:element name="MeetingResponse"
  type="t:MeetingResponseMessageType"/>
                        <xs:element name="MeetingCancellation"
  type="t:MeetingCancellationMessageType"/>
                        <xs:element name="Task" type="t:TaskType"/>
                        <xs:element name="PostItem" type="t:PostItemType"/>
                    </xs:choice>
                </xs:extension>
            </xs:complexContent>
        </xs:complexType>
        <xs:element name="BaseItemId" type="t:BaseItemIdType"/>
        <xs:complexType name="ChangeDescriptionType" abstract="true">
            <xs:sequence>
                <xs:element ref="t:Path"/>
            </xs:sequence>
        </xs:complexType>
        <xs:simpleType name="ConflictResolutionType">
            <xs:restriction base="xs:string">
                <xs:enumeration value="NeverOverwrite"/>
                <xs:enumeration value="AutoResolve"/>
                <xs:enumeration value="AlwaysOverwrite"/>
            </xs:restriction>
        </xs:simpleType>
        <xs:complexType name="ConflictResultsType">
            <xs:sequence>
                <xs:element name="Count" type="xs:int"/>
            </xs:sequence>
        </xs:complexType>
        <xs:complexType name="DeleteItemFieldType">
            <xs:complexContent>
                <xs:extension base="t:ItemChangeDescriptionType">
                    <xs:sequence/>
                </xs:extension>
            </xs:complexContent>
        </xs:complexType>
        <xs:simpleType name="DerivedItemIdType">
            <xs:restriction base="xs:string"/>
        </xs:simpleType>
        <xs: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="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:sequence>
        </xs:complexType>
        <xs:complexType name="MimeContentType">
            <xs:simpleContent>
                <xs:extension base="xs:string">
                    <xs:attribute name="CharacterSet" type="xs:string" use="optional"/>
                </xs:extension>
            </xs:simpleContent>
        </xs:complexType>
        <xs:complexType name="NonEmptyArrayOfBaseItemIdsType">
            <xs:choice maxOccurs="unbounded">
                <xs:element name="ItemId" type="t:ItemIdType"/>
                <xs:element name="OccurrenceItemId" type="t:OccurrenceItemIdType"/>
                <xs:element name="RecurringMasterItemId" type="t:RecurringMasterItemIdType"/>
            </xs:choice>
        </xs:complexType>
        <xs:complexType name="NonEmptyArrayOfInternetHeadersType">
            <xs:sequence>
                <xs:element name="InternetMessageHeader" type="t:InternetHeaderType"
    maxOccurs="unbounded"/>
            </xs:sequence>
        </xs:complexType>
        <xs:complexType name="NonEmptyArrayOfItemChangeDescriptionsType">
            <xs:choice maxOccurs="unbounded">
                <xs:element name="AppendToItemField" type="t:AppendToItemFieldType"/>
                <xs:element name="SetItemField" type="t:SetItemFieldType"/>
                <xs:element name="DeleteItemField" type="t:DeleteItemFieldType"/>
            </xs:choice>
        </xs:complexType>
        <xs:complexType name="NonEmptyArrayOfItemChangesType">
            <xs:sequence>
                <xs:element name="ItemChange" type="t:ItemChangeType" maxOccurs="unbounded"/>
            </xs:sequence>
        </xs:complexType>
        <xs:complexType name="NonEmptyArrayOfResponseObjectsType">
            <xs:choice minOccurs="0" maxOccurs="unbounded">
                <xs:element name="AcceptItem" type="t:AcceptItemType"/>
                <xs:element name="TentativelyAcceptItem" type="t:TentativelyAcceptItemType"/>
                <xs:element name="DeclineItem" type="t:DeclineItemType"/>
                <xs:element name="ReplyToItem" type="t:ReplyToItemType"/>
                <xs:element name="ForwardItem" type="t:ForwardItemType"/>
                <xs:element name="ReplyAllToItem" type="t:ReplyAllToItemType"/>
                <xs:element name="CancelCalendarItem" type="t:CancelCalendarItemType"/>
                <xs:element name="RemoveItem" type="t:RemoveItemType"/>
                <xs:element name="SuppressReadReceipt" type="t:SuppressReadReceiptType"/>
                <xs:element name="PostReplyItem" type="t:PostReplyItemType"/>
                <xs:element name="AcceptSharingInvitation"
    type="t:AcceptSharingInvitationType"/>
            </xs:choice>
        </xs:complexType>
```

```xml
    <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="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="ReferenceItemResponseType">
        <xs:complexContent>
            <xs:restriction base="t:ResponseObjectType">
                <xs:sequence>
                    <xs:element name="ReferenceItemId" type="t:ItemIdType"
 minOccurs="0"/>
                </xs:sequence>
                <xs:attribute name="ObjectName" type="xs:string" use="prohibited"/>
            </xs:restriction>
        </xs:complexContent>
    </xs:complexType>
    <xs:simpleType name="ReminderMinutesBeforeStartType">
        <xs:union>
            <xs:simpleType id="ReminderMinutesBeforeStartType">
                <xs:restriction base="xs:int">
                    <xs:minInclusive value="0"/>
                    <xs:maxInclusive value="2629800"/>
                </xs:restriction>
            </xs:simpleType>
            <xs:simpleType id="ReminderMinutesBeforeStartMarkerType">
                <xs:restriction base="xs:int">
                    <xs:minInclusive value="1525252321"/>
                    <xs:maxInclusive value="1525252321"/>
                </xs:restriction>
            </xs:simpleType>
        </xs:union>
    </xs:simpleType>
    <xs:complexType name="SetItemFieldType">
        <xs:complexContent>
            <xs:extension base="t:ItemChangeDescriptionType">
                <xs:choice>
                    <xs:element name="Item" type="t:ItemType"/>
                    <xs:element name="Message" type="t:MessageType"/>
                    <xs:element name="CalendarItem" type="t:CalendarItemType"/>
                    <xs:element name="Contact" type="t:ContactItemType"/>
                    <xs:element name="DistributionList" type="t:DistributionListType"/>
                    <xs:element name="MeetingMessage" type="t:MeetingMessageType"/>
                    <xs:element name="MeetingRequest"
 type="t:MeetingRequestMessageType"/>
```

```
                        <xs:element name="MeetingResponse"
type="t:MeetingResponseMessageType"/>
                        <xs:element name="MeetingCancellation"
type="t:MeetingCancellationMessageType"/>
                        <xs:element name="Task" type="t:TaskType"/>
                        <xs:element name="PostItem" type="t:PostItemType"/>
                    </xs:choice>
                </xs:extension>
            </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="SmartResponseBaseType">
            <xs:complexContent>
                <xs:restriction base="t:ResponseObjectType">
                    <xs:sequence>
                        <xs:element name="Subject" type="xs:string" minOccurs="0"/>
                        <xs:element name="Body" type="t:BodyType" minOccurs="0"/>
                        <xs:element name="ToRecipients" type="t:ArrayOfRecipientsType"
minOccurs="0"/>
                        <xs:element name="CcRecipients" type="t:ArrayOfRecipientsType"
minOccurs="0"/>
                        <xs:element name="BccRecipients" type="t:ArrayOfRecipientsType"
minOccurs="0"/>
                        <xs:element name="IsReadReceiptRequested" type="xs:boolean"
minOccurs="0"/>
                        <xs:element name="IsDeliveryReceiptRequested" type="xs:boolean"
minOccurs="0"/>
                        <xs:element name="From" type="t:SingleRecipientType" minOccurs="0"/>
                        <xs:element name="ReferenceItemId" type="t:ItemIdType"
minOccurs="0"/>
                    </xs:sequence>
                    <xs:attribute name="ObjectName" type="xs:string" use="prohibited"/>
                </xs:restriction>
            </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="SmartResponseType">
            <xs:complexContent>
                <xs:extension base="t:SmartResponseBaseType">
                    <xs:sequence>
                        <xs:element name="NewBodyContent" type="t:BodyType" minOccurs="0"/>
                    </xs:sequence>
                </xs:extension>
            </xs:complexContent>
        </xs:complexType>
</xs:schema>
```

6.3   Messages Schema

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

MS-OXWSCORE-types.xsd includes the file listed in the following table. To operate correctly, this file has 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 6.

File name	Defining specification
MS-OXWSCDATA-types.xsd	[MS-OXWSCDATA] section 6.
MS-OXWSMSG-types.xsd	[MS-OXWSMSG] section 6.

```xml
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
elementFormDefault="qualified" version="Exchange2010" id="messages">
    <!-- Import common types. -->
    <!--<xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="types.xsd"/>-->
    <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSCDATA-types.xsd"/>
    <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSCORE-types.xsd"/>
    <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSMSG-types.xsd"/>
    <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
    <xs:complexType name="BaseMoveCopyItemType">
        <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
                <xs:sequence>
                    <xs:element name="ToFolderId" type="t:TargetFolderIdType"/>
                    <xs:element name="ItemIds" type="t:NonEmptyArrayOfBaseItemIdsType"/>
                    <xs:element name="ReturnNewItemIds" type="xs:boolean"
minOccurs="0"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
    <xs:element name="CopyItem" type="m:CopyItemType"/>
    <xs:complexType name="CopyItemType">
        <xs:complexContent>
            <xs:extension base="m:BaseMoveCopyItemType"/>
        </xs:complexContent>
    </xs:complexType>
    <xs:element name="CopyItemResponse" type="m:CopyItemResponseType"/>
    <xs:complexType name="CopyItemResponseType">
        <xs:complexContent>
            <xs:extension base="m:BaseResponseMessageType"/>
        </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="CreateItemResponseType">
        <xs:complexContent>
            <xs:extension base="m:BaseResponseMessageType"/>
        </xs:complexContent>
    </xs:complexType>
    <xs:element name="CreateItemResponse" type="m:CreateItemResponseType"/>
    <xs:complexType name="CreateItemType">
        <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
                <xs:sequence>
                    <xs:element name="SavedItemFolderId" type="t:TargetFolderIdType"
minOccurs="0"/>
```

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

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

7 Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products:

- Microsoft® Exchange Server 2007

- Microsoft® Exchange Server 2010

- Microsoft® Exchange Server 2010 Service Pack 1 (SP1)

Exceptions, if any, are noted below. If a service pack number appears with the product version, behavior changed in that service pack. The new behavior also applies to subsequent service packs of the product unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification 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 product does not follow the prescription.

<1> Section 2.2.3.1: Exchange 2010 does not support the <ReturnNewItemIds> element.

8   Change Tracking

This section identifies changes that were made to the [MS-OXWSCORE] protocol document between the August 2010 and November 2010 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

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

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

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

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

- Changes made for template compliance.

- Removal of a document from the documentation set.

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

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

The revision class **No change** means that no new technical or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

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

- New content added.

- Content updated.

- Content removed.

- New product behavior note added.

- Product behavior note updated.

- Product behavior note removed.

- New protocol syntax added.

- Protocol syntax updated.

- Protocol syntax removed.

- New content added due to protocol revision.

- Content updated due to protocol revision.

- Content removed due to protocol revision.

- New protocol syntax added due to protocol revision.

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- Protocol syntax updated due to protocol revision.

- Protocol syntax removed due to protocol revision.

- New content added for template compliance.

- Content updated for template compliance.

- Content removed for template compliance.

- Obsolete document removed.

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

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

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.

- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

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

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change Type
7 Appendix B: Product Behavior	57842 Added Exchange 2007 to the list of applicable products.	Y	Content updated.

9 Index

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