

[MS-OXWSPOST]: Calendaring Web Service Protocol Specification

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation for protocols, file formats, languages, standards as well as overviews of the interaction among each of these technologies.
- **Copyrights.** This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you may make copies of it in order to develop implementations of the technologies described in the Open Specifications and may distribute portions of it in your implementations using these technologies or your documentation as necessary to properly document the implementation. You may also distribute in your implementation, with or without modification, any schema, IDL's, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that may cover your implementations of the technologies described in the Open Specifications. Neither this notice nor Microsoft's delivery of the documentation grants any licenses under those or any other Microsoft patents. However, a given Open Specification may be covered by Microsoft's Open Specification Promise (available here: <http://www.microsoft.com/interop/osp>) or the Community Promise (available here: <http://www.microsoft.com/interop/cp/default.mspx>). If you would prefer a written license, or if the technologies described in the Open Specifications are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting iplq@microsoft.com.
- **Trademarks.** The names of companies and products contained in this documentation may be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights.

Reservation of Rights. All other rights are reserved, and this notice does not grant any rights other than specifically described above, whether by implication, estoppel, or otherwise.

Tools. The Open Specifications do not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments you are free to take advantage of them. Certain Open Specifications are intended for use in conjunction with publicly available standard specifications and network programming art, and assumes that the reader either is familiar with the aforementioned material or has immediate access to it.

Revision Summary

Date	Revision History	Revision Class	Comments
07/15/2009	1.0	Major	Initial Availability.

PRELIMINARY

Table of Contents

1 Introduction	5
1.1 Glossary.....	5
1.2 References.....	5
1.2.1 Normative References	5
1.2.2 Informative References	6
1.3 Protocol Overview (Synopsis)	6
1.4 Relationship to Other Protocols.....	6
1.5 Prerequisites/Preconditions.....	6
1.6 Applicability Statement.....	6
1.7 Versioning and Capability Negotiation.....	7
1.8 Vendor-Extensible Fields	7
1.9 Standards Assignments	7
2 Messages	8
2.1 Transport.....	8
2.2 Common Message Syntax.....	8
2.2.1 Namespaces.....	8
2.2.2 Simple Types	8
2.2.3 Complex Types.....	8
2.2.3.1 t:PostItemType Complex Type.....	9
2.2.3.2 t:PostReplyItemBaseType Complex Type	10
2.2.3.3 t:PostReplyItemType Complex Type	11
2.2.4 Elements.....	11
2.2.5 Attributes.....	11
2.2.6 Groups.....	11
2.2.7 Attribute Groups	12
2.2.8 Message Syntax.....	12
3 Protocol Details.....	13
3.1 ExchangeServicePortType Server Details	13
3.1.1 Abstract Data Model.....	13
3.1.2 Timers	13
3.1.3 Initialization	13
3.1.4 Message Processing Events and Sequencing	13
3.1.4.1 GetItem.....	14
3.1.4.2 SendItem.....	14
3.1.4.3 DeleteItem.....	15
3.1.4.4 UpdateItem.....	15
3.1.4.5 MoveItem	16
3.1.4.6 CopyItem.....	16
3.1.4.7 Create Item	17
3.1.5 Timer Events.....	17
3.1.6 Other Local Events	17
3.2 Client Details.....	17
3.2.1 Client Abstract Data Model	17
3.2.2 Client Timers.....	17
3.2.3 Client Initialization	17
3.2.4 Client Message Processing Events and Sequencing.....	18
3.2.5 Client Timer Events	18
3.2.6 Client Other Local Events	18

4 Protocol Examples	19
5 Security.....	20
5.1 Security Considerations for Implementers.....	20
5.2 Index of Security Parameters	20
6 Appendix A: Full WSDL	21
6.1 WSDL.....	21
6.2 Types Schema.....	26
6.3 Messages Schema	27
7 Appendix B: Product Behavior	28
8 Change Tracking	29
9 Index.....	30

1 Introduction

This document specifies the Post Items Web Service protocol.

1.1 Glossary

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

folder
Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)
message
SOAP body
SOAP fault
SOAP header
SOAP message
store
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-OXGLOS] Microsoft Corporation, "[Exchange Server Protocols Master Glossary](#)", June 2008.

[MS-OXWSCORE] Microsoft Corporation, "[Core Items 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>.

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

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

[XMLNS] World Wide Web Consortium, "Namespaces in XML 1.0 (Second Edition)", August 2006, <http://www.w3.org/TR/REC-xml-names/>.

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

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

1.2.2 Informative References

None.

1.3 Protocol Overview (Synopsis)

The Post Item Web Service protocol provides clients with the ability to send items from the server.

1.4 Relationship to Other Protocols

This protocol uses SOAP over **HTTP** and SOAP over **HTTPS**, as shown in the following figures.

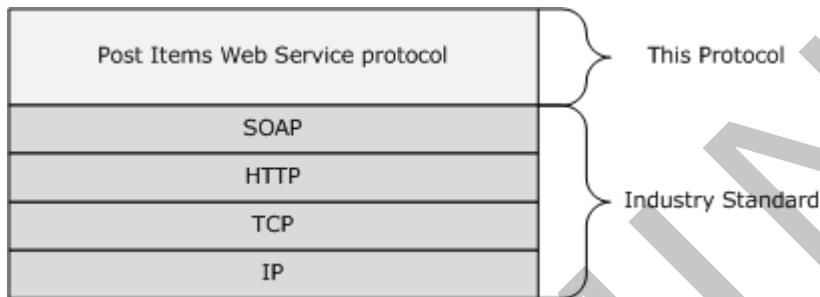


Figure 1: SOAP over HTTP

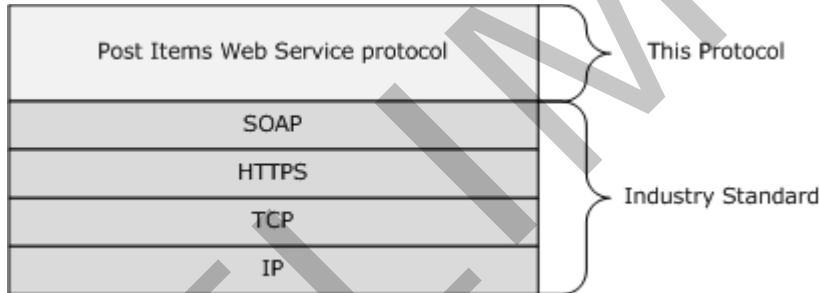


Figure 2: SOAP over HTTPS

1.5 Prerequisites/Preconditions

None.

1.6 Applicability Statement

This protocol is applicable to client programs that create, update, manage, or send items in the server data **store**.

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, as specified in [\[SOAP1.1\]](#)

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 namespace** by using the mechanisms specified in [\[XMLNS\]](#). Although this specification associates a specific XML namespace prefix with each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and is 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-OXWSPOST]
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
t	http://schemas.microsoft.com/exchange/services/2006/types	[MS-OXWSPOST]
targetNamespace	http://schemas.microsoft.com/exchange/services/2006/messages	[MS-OXWSPOST]

2.2.2 Simple Types

This specification does not define any common XML schema simple type definitions.

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
t:PostItemType	Represents a post item in a server store.
t:PostReplyItemBaseType	Represents the base class for the PostReplyItemType class.
t:PostReplyItemType	Contains a reply to a post item.

2.2.3.1 t:PostItemType Complex Type

The **PostItemType** complex type represents a post item in a message server store.

```
<xs:complexType name="PostItemType">
  <xs:complexContent>
    <xs:extension
      base="t:ItemType"
    >
      <xs:sequence
        minOccurs="0"
      >
        <xs:element name="ConversationIndex"
          type="xs:base64Binary"
          minOccurs="0"
        />
        <xs:element name="ConversationTopic"
          type="xs:string"
          minOccurs="0"
        />
        <xs:element name="From"
          type="t:SingleRecipientType"
          minOccurs="0"
        />
        <xs:element name="InternetMessageId"
          type="xs:string"
          minOccurs="0"
        />
        <xs:element name="IsRead"
          type="xs:boolean"
          minOccurs="0"
        />
        <xs:element name="PostedTime"
          type="xs:dateTime"
          minOccurs="0"
        />
        <xs:element name="References"
          type="xs:string"
          minOccurs="0"
        />
        <xs:element name="Sender"
          type="t:SingleRecipientType"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
ConversationIndex	xs:base64Binary	Contains a binary ID that represents the thread to which this message belongs.

Element	Type	Description
ConversationTopic	xs:string	Represents the conversation identifier.
From	t:SingleRecipientType	Represents the address from which the message was sent, and can only be set at creation time.
InternetMessageId	xs:string	Represents the Internet message identifier of an item.
IsRead	xs:boolean	Indicates whether a message has been read.
PostedTime	xs:dateTime	Represents the time at which a <PostItem> was posted. This element is read-only.
References	xs:string	Represents the Usenet header that is used to associate replies with the original message.
Sender	t:SingleRecipientType	Identifies the sender of an item, and can only be set at creation time.

2.2.3.2 t:PostReplyItemBaseType Complex Type

The **PostReplyItemBaseType** complex type is the base class for the **PostReplyItemType** class.

```

<xs:complexType name="t:PostReplyItemBaseType">
  <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="ReferenceItemId"
          type="t:BodyType"
          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	Represents the subject property of sever store items. The <Subject> is limited to 255 characters.
Body	t:BodyType	Represents the actual body content of a message.
ReferenceItemId	t:BodyType	Identifies the item to which the response object refers.

Attributes

Name	Type	Description
ObjectName	xs:string	The name of an object; this name depends on the actual resource accessed.

2.2.3.3 t:PostReplyItemType Complex Type

The **PostReplyItemType** complex type contains a reply to a post item.

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

Child Elements

Element	Type	Description
NewBodyContent	t:BodyType	Represents the new body content of a message.

2.2.4 Elements

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

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 Message Syntax

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

PRELIMINARY

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 returned by the transport are passed directly back to the higher-layer protocol or application.

3.1 ExchangeServicePortType Server Details

This protocol defines a single port type.

Operation	Description
GetItem	Defines a request to get an item from a mailbox in the server.
SendItem	Defines a request to send an item from a mailbox in the server.
DeleteItem	Defines a request to delete an item from a mailbox in the server.
UpdateItem	Defines a request to update an item in a mailbox.
MoveItem	Defines a request to move an item in the server.
CopyItem	Defines a request to copy an item in a mailbox in the server.
CreateItem	Defines a request to create an item in the server.

3.1.1 Abstract Data Model

This 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 listed in the following table.

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

3.1.4.1 GetItem

This protocol uses the **GetItem** operation specified in [\[MS-OXWScore\]](#) section 3.1.4.4 to get post item elements.

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

Request

Message Format	Description
tns:GetItemSoapIn	Specifies the SOAP message that defines the post item to get. The Items child element of the GetItem child element that specifies the XML request MUST contain the following elements: t:ItemResponseShapeType , t:ItemIdType . All other elements MUST be empty.

Response

Message Format	Description
tns:GetItemSoapOut	Specifies the SOAP message returned by the server in response. The server returns a t:ItemResponseShapeType element that contains properties associated with the distribution list item.

3.1.4.2 SendItem

This protocol uses the **SendItem** operation specified in [\[MS-OXWScore\]](#) section 3.1.4.6 to send post item elements.

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

Request

Message Format	Description
tns:SendItemSoapIn	Specifies the SOAP message that defines the post item to send. The Items child element of the SendItem child element that specifies the XML request MUST contain the following elements: t:TargetFolderIdType , and t:ItemIdType . If the post item is a recurring calendar item, then t:OccurrenceItemIdType , and t:RecurringMasterItemIdType SHOULD be included. All other elements MUST be empty.

Response

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

3.1.4.3 DeleteItem

This protocol uses the **DeleteItem** operation specified in [\[MS-OXWScore\]](#) section 3.1.4.3 to delete post item elements.

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

Request

Message Format	Description
tns:DeleteItemSoapIn	Specifies the SOAP message that defines the post item to delete. The Items child element of the DeleteItem child element that specifies the XML request MUST contain one or more t:ItemIdType elements. All other elements MUST be empty.

Response

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

3.1.4.4 UpdateItem

This protocol uses the **UpdateItem** operation specified in [\[MS-OXWScore\]](#) section 3.1.4.7 to update post item elements.

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

Request

Message Format	Description
tns:UpdateItemSoapIn	Specifies the SOAP message that defines the post item to update. The Items child element of the CreateItem child element that specifies the XML request MUST contain one or more elements of the following types: t:PostItemType , or t:PostReplyItemType . All other elements MUST be empty.

Response

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

3.1.4.5 MoveItem

This protocol uses the **MoveItem** operation specified in [\[MS-OXWScore\]](#) section 3.1.4.1 to move post item elements.

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

Request

Message Format	Description
tns:MoveItemSoapIn	Specifies the SOAP message that defines the post item to move. The Items child element of the MoveItem child element that specifies the XML request MUST contain the following elements: t:TargetFolderIdType , and t:ItemIdType . All other elements MUST be empty.

Response

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

3.1.4.6 CopyItem

This protocol uses the **CopyItem** operation specified in [\[MS-OXWScore\]](#) section 3.1.4.1 to copy post item elements.

```
<wsdl:operation name="CopyItem">
  <wsdl:input message="tns:CopyItemSoapIn" />
  <wsdl:output message="tns:CopyItemSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:CopyItemSoapIn	Specifies the SOAP message that defines the post item to copy. The Items child element of the CopyItem child element that specifies the XML request MUST contain the following elements: t:TargetFolderIdType , and t:ItemIdType . All other elements MUST be empty.

Response

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

3.1.4.7 Create Item

This protocol uses the **CreateItem** operation specified in [\[MS-OXWScore\]](#) section 3.1.4.2 to create post item elements.

```
<wsdl:operation name="CreateItem">
  <wsdl:input message="tns:CreateItemSoapIn" />
  <wsdl:output message="tns:CreateItemSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:CreateItemSoapIn	Specifies the SOAP message that defines the contact item to create. The Items child element of the CreateItem child element that specifies the XML request MUST contain one or more elements of the following types: t:PostItemType , or t:PostReplyItemType . All other elements MUST be empty.

Response

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

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 returned by the transport are passed directly back to the higher-layer protocol or application.

3.2.1 Client Abstract Data Model

None.

3.2.2 Client Timers

None.

3.2.3 Client Initialization

None.

3.2.4 Client Message Processing Events and Sequencing

None.

3.2.5 Client Timer Events

None.

3.2.6 Client Other Local Events

None.

PRELIMINARY

4 Protocol Examples

None.

PRELIMINARY

5 Security

5.1 Security Considerations for Implementers

This protocol does not use additional security mechanisms.

5.2 Index of Security Parameters

None.

PRELIMINARY

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-OXWSPOST.wsdl	Contains the WSDL for the implementation of this protocol.	6.1
MS-OXWSPPost-types.xsd	Contains the XML schema type definitions that are used in this protocol.	6.2
MS-OXWSPOST-messages.xsd	Contains the XML schema message definitions that are used in this protocol.	6.3

These files need 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-OXWSPPost-types.xsd or MS-OXWSPOST-messages.xsd schemas need to be placed in the common folder with these files.

6.1 WSDL

This section contains the content of the MS-OXWSPOST.wsdl file and information about additional files that this WSDL file requires to operate correctly.

For MS-OXWSPOST.wsdl to operate correctly the file shown in the following table **MUST** be present in the folder that contains the WSDL, types schema and messages schema files for this protocol.

Defining specification	File name
[MS-OXWSCORE] , section 6.3	MS-OXWSCORE-messages.xsd

MS-OXWSPOST.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"/>
      <xs:include schemaLocation="MS-OXWSCORE-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"/>
    </xs:schema>
  </wsdl:types>
</wsdl:definitions>
```

```

        <!-- 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="SendItem">
        <wsdl:input message="tns:SendItemSoapIn"/>
        <wsdl:output message="tns:SendItemSoapOut"/>
    </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="SendItem">
            <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SendItem"/>

```

```

        <wsdl:input>
            <soap:header message="tns:SendItemSoapIn" part="Impersonation"
use="literal"/>
            <soap:header message="tns:SendItemSoapIn" part="MailboxCulture"
use="literal"/>
            <soap:header message="tns:SendItemSoapIn" part="RequestVersion"
use="literal"/>
            <soap:body parts="request" use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body parts="SendItemResult" use="literal"/>
            <soap:header message="tns:SendItemSoapOut" part="ServerVersion"
use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl: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="SendItemSoapIn">
        <wsdl:part name="request" element="tns:SendItem"/>
        <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
        <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
        <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="SendItemSoapOut">
        <wsdl:part name="SendItemResult" element="tns:SendItemResponse"/>
        <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl: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-OXWSPOST-types.xsd file and information about additional files that this schema file requires to operate correctly.

For MS-OXWSPOST-types.xsd to operate correctly the file shown in the following table needs to be present in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

Defining specification	File name
[MS-OXWSPOST] , section 6.2	MS-OXWSPOST-types.xsd

MS-OXWSPOST-types.xsd file:

```

<?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-OXWSPOST-types.xsd"/>
  <xs:complexType name="PostItemType">
    <xs:complexContent>
      <xs:extension base="t:ItemType">
        <xs:sequence>
          <xs:element name="ConversationIndex" type="xs:base64Binary"
minOccurs="0"/>
          <xs:element name="ConversationTopic" type="xs:string"
minOccurs="0"/>
          <!-- From property can only be set at creation time -->
          <xs:element name="From" type="t:SingleRecipientType" minOccurs="0"/>
          <xs:element name="InternetMessageId" type="xs:string"
minOccurs="0"/>
          <xs:element name="IsRead" type="xs:boolean" minOccurs="0"/>
          <!-- PostedTime is read only -->
          <xs:element name="PostedTime" type="xs:dateTime" minOccurs="0"/>
          <xs:element name="References" type="xs:string" minOccurs="0"/>
          <!-- Sender can only be set at creation time -->
          <xs:element name="Sender" type="t:SingleRecipientType"
minOccurs="0"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>

```

```

</xs:complexType>
<xs:complexType name="PostReplyItemBaseType">
  <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="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="PostReplyItemType">
  <xs:complexContent>
    <xs:extension base="t:PostReplyItemBaseType">
      <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

No messages schema file is specified for this protocol.

7 Appendix B: Product Behavior

The information in this specification is applicable to the following product versions:

- Microsoft Exchange Server 2010

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.

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 the product does not follow the prescription.

PRELIMINARY

8 Change Tracking

This section will report content and/or editorial changes, beginning with the next release.

PRELIMINARY

9 Index

A

[Applicability](#)

C

[Capability negotiation](#)

[Change tracking](#)

Client

[abstract data model](#)

[initialization](#)

[local events](#)

[message processing](#)

[overview](#)

[sequencing rules](#)

[timer events](#)

[timers](#)

F

[Full WSDL](#)

G

[Glossary](#)

I

[Introduction](#)

M

Messages

[overview](#)

[syntax](#)

[transport](#)

O

[Overview \(synopsis\)](#)

P

[Preconditions](#)

[Prerequisites](#)

[Product behavior](#)

R

References

[informative](#)

[normative](#)

[Relationship to other protocols](#)

S

Security

[implementer considerations](#)

[overview](#)

[parameter index](#)

Server

[abstract data model](#)

[initialization](#)

[local events](#)

[message processing](#)

[overview](#)

[sequencing rules](#)

[timer events](#)

[timers](#)

[Standards assignments](#)

T

[Tracking changes](#)

V

[Vendor-extensible fields](#)

[Versioning](#)