

[MS-OXWOOF]:

Out of Office (OOF) Web Service Protocol

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Revision Summary

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6/27/2008	1.0	Major	Initial Release.
8/6/2008	1.0.1	Editorial	Revised and edit technical content.
9/3/2008	1.0.2	Editorial	Updated references.
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2/4/2009	1.0.4	Editorial	Revised and edited technical content.
3/4/2009	1.0.5	Editorial	Revised and edited technical content.
4/10/2009	2.0	Major	Updated technical content and applicable product releases.
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1 Introduction

The Out of Office (OOF) Web Service Protocol defines the interaction between a client and a server for configuring response messages that are sent automatically in response to e-mail messages that are sent to people who are out of the office.

Sections 1.8, 2, and 3 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in [\[RFC2119\]](#). Sections 1.5 and 1.9 are also normative but do not contain those terms. All other sections and examples in this specification are informative.

1.1 Glossary

The following terms are specific to this document:

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

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

external OOF message: An **OOF message** that is sent to external users.

external user: Any user who is located outside the enterprise network boundary, including remote users (1), federated users, and public instant messaging (IM) users.

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

Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS): An extension of **HTTP** that securely encrypts and decrypts webpage requests.

internal users: Users who are within an organization.

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

OOF message: A message that is sent in response to incoming messages and indicates that the user is currently **Out of Office (OOF)**.

OOF settings: A set of values that determine whether an OOF message is sent, to whom it is sent, and the contents of the message.

Out of Office (OOF): One of the possible values for the free/busy status on an appointment. It indicates that the user will not be in the office during the appointment.

response message: A Traversal Using Relay NAT (TURN) message that is sent from a protocol server to a protocol client in response to a request message. It is sent when the request message is handled successfully by the protocol server.

SOAP: A lightweight protocol for exchanging structured information in a decentralized, distributed environment. **SOAP** uses **XML** technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming

model and other implementation-specific semantics. SOAP 1.2 supersedes SOAP 1.1. See [\[SOAP1.2-1/2003\]](#).

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

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

SOAP fault: A container for error and status information within a **SOAP message**. See [\[SOAP1.2-1/2007\]](#) section 5.4 for more information.

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

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

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

web server: A server computer that hosts websites and responds to requests from applications.

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

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

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

XML: The Extensible Markup Language, as described in [\[XML1.0\]](#).

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

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

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

1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents

in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the [Errata](#).

1.2.1 Normative References

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

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

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, <http://www.rfc-editor.org/rfc/rfc2119.txt>

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

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

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

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

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

[XMLSCHEMA1] Thompson, H., 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.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

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

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

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

1.3 Overview

This protocol enables a protocol client to manage the messages that users configure to be sent by the server automatically in response to incoming e-mail when the users are away from the office or otherwise unable to respond immediately. The protocol client can set messages for both internal and external e-mail correspondents, start and stop sending **OOF messages**, and schedule the messages so that they are enabled for a specific duration.

This protocol defines the interaction between a client and a server that configures **OOF settings** and OOF messages for users. The conditions under which the OOF messages are sent are determined by the OOF settings.

1.4 Relationship to Other Protocols

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

This protocol uses the SOAP protocol as described in [\[SOAP1.1\]](#) to specify the structure of information exchanged between the client and the server. The protocol uses the XML protocol as described in [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#) to describe the message content sent to and from the server.

The OOF Web Service Protocol uses SOAP over **HTTP**, as described in [\[RFC2616\]](#), and SOAP over **HTTPS**, as described in [\[RFC2818\]](#), as shown in the following layering diagram.

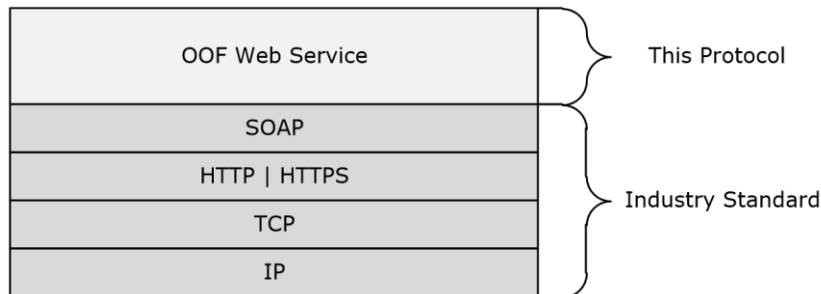


Figure 1: This protocol in relation to other protocols

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

1.5 Prerequisites/Preconditions

The endpoint **URL** that is returned by either the Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol, as described in [\[MS-OXWSADISC\]](#), or the Autodiscover Publishing and Lookup Protocol, as described in [\[MS-OXDSCLI\]](#), is a required argument for forming the HTTP request to the **web server** that hosts this protocol. The operations that this protocol uses cannot be accessed unless the correct endpoint that services the target **mailbox** is identified for the HTTP Web requests that target the OOF Web Service Protocol operations.

1.6 Applicability Statement

The OOF Web Service Protocol is applicable to SOAP-based clients, as described in [\[SOAP1.1\]](#).

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses SOAP 1.1, as specified in section [2.1](#).
- **Protocol Versions:** This protocol has a single **WSDL port type** version. The version of the server responding to the request is identified by using the **t:ServerVersionInfo** element, as described in [\[MS-OXWSCDATA\]](#) section 2.2.3.12.
- **Security and Authentication Methods:** This protocol relies on the web server that hosts it to perform authentication.
- **Localization:** This protocol includes text strings in various messages.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

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2 Messages

2.1 Transport

Messages are transported by using SOAP version 1.1. For details, see [\[SOAP1.1\]](#).

This protocol relies on the web server that hosts the application to perform authentication. The protocol supports **SOAP** over HTTP, as specified in [\[RFC2616\]](#). The protocol SHOULD use secure communications over HTTPS, as specified in [\[RFC2818\]](#).

2.2 Common Message Syntax

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

2.2.1 Namespaces

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

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

2.2.2 Messages

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

2.2.3 Elements

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

Element	Description
t:Mailbox	Identifies a user's mailbox by using an e-mail address.

2.2.3.1 t:Mailbox Element

The **Mailbox** element identifies a user's **mailbox** by using an e-mail address.

```
<xs:element name="Mailbox"
  type="t:EmailAddress"
/>
```

For details about the **t:EmailAddress** complex type, see [\[MS-OXWSCDATA\]](#) section 2.2.4.29.

2.2.4 Complex Types

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

Complex type	Description
t:UserOofSettings	Specifies the OOF settings.

2.2.4.1 t:UserOofSettings Complex Type

The **UserOofSetting** complex type specifies the OOF settings.

```
<xs:complexType name="UserOofSettings">
  <xs:sequence>
    <xs:element name="OofState"
      type="t:OofState"
      minOccurs="1"
      maxOccurs="1"
    />
    <xs:element name="ExternalAudience"
      type="t:ExternalAudience"
      maxOccurs="1"
      minOccurs="1"
    />
    <xs:element name="Duration"
      type="t:Duration"
      minOccurs="0"
      maxOccurs="1"
    />
    <xs:element name="InternalReply"
      type="t:ReplyBody"
      minOccurs="0"
      maxOccurs="1"
    />
    <xs:element name="ExternalReply"
      type="t:ReplyBody"
      minOccurs="0"
      maxOccurs="1"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **t:UserOofSettings** complex type.

Element	Type	Description
OofState	t:OofState (section 2.2.5.2)	Indicates the user's Out of Office (OOF) status. This element MUST be present.
ExternalAudience	t:ExternalAudience (section 2.2.5.1)	Indicates how external users are handled. This element MUST be present.
Duration	t:Duration ([MS-OXWSCDATA] section 2.2.4.27)	Indicates the duration for which the OOF status is enabled if the OOF state in the OofState element is set to "Scheduled". The start and end times for this period of time SHOULD <1> be specified in Coordinated Universal Time (UTC) . This element can be present. It MUST be present if the OofState element is set to "Scheduled" when calling the SetUserOofSettings operation (section 3.1.4.1).
InternalReply	t:ReplyBody ([MS-OXWSCDATA] section 2.2.4.63)	Contains the body of the response OOF message that is sent to internal users . This element can be present.
ExternalReply	t:ReplyBody	Contains the body of the response OOF message that is sent to external users. This element can be present.

2.2.5 Simple Types

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

Simple type	Description
t:ExternalAudience	Specifies a value that indicates to whom external OOF messages are to be sent.
t:OofState	Specifies the state of the user's mailbox with respect to OOF.

2.2.5.1 t:ExternalAudience Simple Type

The **ExternalAudience** simple type specifies a value that indicates to whom external OOF messages are to be sent.

```
<xs:simpleType name="ExternalAudience">
  <xs:restriction
    base="xs:string"
  >
    <xs:enumeration
      value="None"
    />
    <xs:enumeration
      value="Known"
    />
    <xs:enumeration
```

```

        value="All"
      />
    </xs:restriction>
  </xs:simpleType>

```

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

Value	Description
None	Specifies that mail sent from external users will not get an OOF message.
Known	Specifies that mail sent from external users who are known to the recipient will receive an OOF message in response to the mail they sent. A known user is one who appears in the recipient's list of contacts in any of the contacts folders in his or her mailbox.
All	Specifies that the external OOF message will be sent to all external users.

2.2.5.2 t:OofState Simple Type

The **OofState** simple type specifies the state of the user's mailbox with respect to OOF.

```

<xs:simpleType name="OofState">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Disabled" />
    <xs:enumeration value="Enabled" />
    <xs:enumeration value="Scheduled" />
  </xs:restriction>
</xs:simpleType>

```

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

Value	Description
Disabled	Specifies that OOF behavior is disabled.
Enabled	Specifies that the OOF state is enabled; this indicates that OOF messages will be sent.
Scheduled	Specifies that the OOF status is set to Enabled for the time period defined by the Duration element.

2.2.6 Attributes

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

2.2.7 Groups

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

2.2.8 Attribute Groups

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

3 Protocol Details

This protocol specifies a way of getting OOF settings and configuring them for a mailbox.

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 specifies a single port type with two operations to manipulate the OOF settings.

3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that specified in this document.

This protocol provides operations for sending OOF settings for a mailbox, and for retrieving those settings. The server maintains the OOF settings for the mailbox, modifies them as requested, and uses them to respond to incoming messages appropriately.

The client application is not required to maintain the state of the OOF settings on the server and can request the OOF settings at any time. If more than one client is changing the OOF settings at any one time, there is no requirement that the server lock the existing OOF settings for changes.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

The following table summarizes the list of WSDL operations defined by this specification.

Operation	Description
GetUserOofSettings	Gets a user's OOF settings and OOF messages from his or her mailbox.
SetUserOofSettings	Sets a user's OOF settings and OOF messages in his or her mailbox.

3.1.4.1 GetUserOofSettings Operation

The **GetUserOofSettings** operation retrieves the OOF settings and OOF messages from a user's mailbox.

The following is the WSDL port type specification for this operation.

```
<wsdl:operation name="GetUserOofSettings">
  <wsdl:input message="tns:GetUserOofSettingsSoapIn" />
  <wsdl:output message="tns:GetUserOofSettingsSoapOut" />
</wsdl:operation>
```

The following is the WSDL binding specification for this operation. <2>

```
<wsdl:operation name="GetUserOofSettings">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetUserOofSettings"/
>
  <wsdl:input>
    <soap:header message="tns:GetUserOofSettingsSoapIn" part="Impersonation"
use="literal"/>
    <soap:body parts="GetUserOofSettingsRequest" use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body parts="GetUserOofSettingsResult" use="literal"/>
    <soap:header message="tns:GetUserOofSettingsSoapOut" part="ServerVersion"
use="literal"/>
  </wsdl:output>
</wsdl:operation>
```

For a successful request, the **GetUserOofSettings** operation MUST return a **GetUserOofSettingsResponse** element with the **ResponseClass** attribute of the **ResponseMessage** element set to "Success". The **ResponseCode** element of the **ResponseMessage** element MUST be set to "NoError".

If the mailbox that is specified in the request does not belong to the user who is making the request, the server MUST return a **SOAP fault**. The following **XML** specifies the **SOAP body** that MUST be returned.

```
<soap:Body>
  <soap:Fault>
    <faultcode>soap:Client</faultcode>
    <faultstring>Microsoft.Exchange.Data.Storage.AccessDeniedException: User is not mailbox
owner. User = *UserID*, MailboxGuid = *MailboxID* ---> User is not mailbox owner.
</faultstring>
    <faultactor>https://CAS01.example.com/EWS/Exchange.asmx</faultactor>
    <detail>
      <ErrorCode xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">-
2146233088</ErrorCode>
    </detail>
  </soap:Fault>
</soap:Body>
```

The **faultstring** element MUST contain the User ID of the user who is making the request and the Mailbox ID of the mailbox for which the attempt was made to change the OOF message.

3.1.4.1.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to the **GetUserOofSettings** operation.

Message	Description
GetUserOofSettingsSoapIn	Specifies the request that retrieves a user's OOF settings.
GetUserOofSettingsSoapOut	Specifies the response from a GetUserOofSettings operation.

3.1.4.1.1.1 tns:GetUserOofSettingsSoapIn

The **GetUserOofSettingsSoapIn** WSDL message specifies the **SOAP message** that represents a request to get the OOF settings for a mailbox.

```
<wsdl:message name="GetUserOofSettingsSoapIn">
  <wsdl:part name="GetUserOofSettingsRequest" element="tns:GetUserOofSettingsRequest"/>
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

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

The following table lists and describes the parts of the **GetUserOofSettingsSoapIn** WSDL message.

Part name	Element/type	Description
GetUserOofSettingsRequest	m:GetUserOofSettingsRequest (section 3.1.4.1.2.1)	Specifies the SOAP body of the request to get the OOF settings for a mailbox.
Impersonation	t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3)	Specifies a SOAP header that identifies the user who the client application is impersonating.
RequestVersion	t:RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a SOAP header that identifies the schema version for the GetUserOofSettings operation request. <3>

3.1.4.1.1.2 tns:GetUserOofSettingsSoapOut

The **GetUserOofSettingsSoapOut** WSDL message specifies the SOAP message that represents a response to a request to get the OOF settings for a mailbox.

```
<wsdl:message name="GetUserOofSettingsSoapOut">
  <wsdl:part name="GetUserOofSettingsResult" element="tns:GetUserOofSettingsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

The **GetUserOofSettingsSoapOut** WSDL message contains two parts, as described in the following table.

Part name	Element/type	Description
GetUserOofSettingsResult	m:GetUserOofSettingsResponse (section 3.1.4.1.2.2)	Specifies the SOAP body the response to the request for mailbox OOF settings.
ServerVersion	t:ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the server version for the response.

3.1.4.1.2 Elements

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

Element	Description
GetUserOofSettingsRequest	Specifies the root element in a GetUserOofSettings operation request.
GetUserOofSettingsResponse	Specifies the root element in a GetUserOofSettings operation response.
OofSettings	Specifies the OOF settings for a mailbox.

3.1.4.1.2.1 m:GetUserOofSettingsRequest Element

The **GetUserOofSettingsRequest** element specifies the root element in a **GetUserOofSettings** request.

```
<xs:element name="GetUserOofSettingsRequest"
  type="tns:GetUserOofSettingsRequest"
  />
```

3.1.4.1.2.2 m:GetUserOofSettingsResponse Element

The **GetUserOofSettingsResponse** element specifies the root element in a **GetUserOofSettings** operation response.

```
<xs:element name="GetUserOofSettingsResponse"
  type="tns:GetUserOofSettingsResponse"
  />
```

3.1.4.1.2.3 t:OofSettings Element

The **OofSettings** element specifies the OOF settings for a mailbox.

```
<xs:element name="OofSettings"
  type="t:UserOofSettings"
  />
```

3.1.4.1.3 Complex Types

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

Complex type	Description
GetUserOofSettingsRequest	Contains the arguments that are used to get a user's OOF settings.
GetUserOofSettingsResponse	Contains the response message from the GetUserOofSettings operation.

3.1.4.1.3.1 tns:GetUserOofSettingsResponse Complex Type

The **GetUserOofSettingsResponse** complex type contains the response message from the **GetUserOofSettings** operation and the OOF settings for the user, as specified in the **GetUserOofSettings** operation request.

```
<xs:complexType name="GetUserOofSettingsResponse">
  <xs:sequence>
    <xs:element name="ResponseMessage"
      type="m:ResponseMessageType"
      maxOccurs="1"
      minOccurs="1"
    />
    <xs:element
      maxOccurs="1"
      minOccurs="0"
      ref="t:OofSettings"
    />
    <xs:element name="AllowExternalOof"
      type="t:ExternalAudience"
      maxOccurs="1"
      minOccurs="0"
    />
  </xs:sequence>
</xs:complexType>
```

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

Element	Type	Description
ResponseMessage	m:ResponseMessageType ([MS-OXWSCDATA] section 2.2.4.65)	Provides descriptive information about the response status. This element MUST be present.
t:OofSettings	t:OofSettings (section 3.1.4.1.2.3)	Contains the OOF settings. This element can be present.
AllowExternalOof	t:ExternalAudience (section 2.2.5.1)	Contains a value that identifies the recipients to whom external OOF messages are sent. This element can be present.

3.1.4.1.3.2 tns:GetUserOofSettingsRequest Complex Type

The **GetUserOofSettingsRequest** complex type contains the arguments that are used to get a user's OOF settings. This complex type extends the **BaseRequestType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.17.

```
<xs:complexType name="GetUserOofSettingsRequest">
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element
          maxOccurs="1"
          minOccurs="1"
          ref="t:Mailbox"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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

Element	Type	Description
t:Mailbox	t:Mailbox (section 2.2.3.1)	Specifies the user for whom OOF settings are to be retrieved. This element MUST be present.

The sender **MUST** be the owner of the mailbox specified in the request.

3.1.4.2 SetUserOofSettings Operation

The **SetUserOofSettings** operation specifies how to set a mailbox user's OOF settings and response message.

The following is the WSDL port type specification for this operation.

```
<wsdl:operation name="SetUserOofSettings">
  <wsdl:input message="tns:SetUserOofSettingsSoapIn"/>
  <wsdl:output message="tns:SetUserOofSettingsSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification for this operation. [<4>](#)

```
<wsdl:operation name="SetUserOofSettings">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SetUserOofSettings"/
  >
  <wsdl:input>
    <soap:body parts="SetUserOofSettingsRequest" use="literal"/>
    <soap:header message="tns:SetUserOofSettingsSoapOut" part="Impersonation" use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body parts="SetUserOofSettingsResult" use="literal"/>
    <soap:header message="tns:SetUserOofSettingsSoapOut" part="ServerVersion" use="literal"/>
  </wsdl:output>
```

</wsdl:operation>

For a successful request, the **SetUserOofSettings** operation MUST return a **SetUserOofSettingsResponse** element with the **ResponseClass** attribute of the **ResponseMessage** element set to "Success". The **ResponseCode** element of the **ResponseMessage** element MUST be set to "NoError".

If the request is unsuccessful, the **SetUserOofSettings** operation MUST return a **SetUserOofSettingsResponse** element with the **ResponseClass** attribute of the **ResponseMessage** element set to "Error". The **ResponseCode** element of the **ResponseMessage** element MUST be set to one of the error values listed in the following table.

Error value	Description
ErrorInvalidScheduledOofDuration	Occurs if the specified duration end time is not greater than the start time, or if the end time does not occur in the future, or if the Duration element is not set when the OofState element is set to "Scheduled".
ErrorInvalidUserOofSettings	Occurs when the request is missing an internal or external reply.

If the mailbox that is specified in the request does not belong to the user who is making the request, the server MUST return a SOAP fault. The following XML specifies the SOAP body that MUST be returned in such cases.

```
<soap:Body>
  <soap:Fault>
    <faultcode>soap:Client</faultcode>
    <faultstring>Microsoft.Exchange.Data.Storage.AccessDeniedException: User is not mailbox owner. User = *UserID*, MailboxGuid = *MailboxID* ---> User is not mailbox owner.
  </faultstring>
    <faultactor>https://CAS01.example.com/EWS/Exchange.asmx</faultactor>
    <detail>
      <ErrorCode xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">-
2146233088</ErrorCode>
    </detail>
  </soap:Fault>
</soap:Body>
```

The **faultstring** element MUST contain the User ID of the user who is making the request and the Mailbox ID of the mailbox for which the attempt was made to change the OOF message.

3.1.4.2.1 Messages

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

Message	Description
SetUserOofSettingsSoapIn	Specifies the request that sets a user's OOF settings.
SetUserOofSettingsSoapOut	Specifies the response from the SetUserOofSettings operation.

3.1.4.2.1.1 tns:SetUserOofSettingsSoapIn

The **SetUserOofSettingsSoapIn** WSDL message specifies the SOAP message that represents a request to set the OOF settings for a mailbox.

```
<wsdl:message name="SetUserOofSettingsSoapIn">
  <wsdl:part name="SetUserOofSettingsRequest" element="tns:SetUserOofSettingsRequest"/>
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
SetUserOofSettingsRequest	m:SetUserOofSettingsRequest (section 3.1.4.2.2.1)	Specifies the SOAP body of the request to set OOF settings for a mailbox.
Impersonation	t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3)	Specifies a SOAP header that identifies the user who the client application is impersonating.
RequestVersion	t:RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a SOAP header that identifies the schema version for the SetUserOofSettings operation request. <5>

3.1.4.2.1.2 tns:SetUserOofSettingsSoapOut

The **SetUserOofSettingsSoapOut** WSDL message specifies the SOAP message that represents the response from a request to set the OOF settings for a mailbox.

```
<wsdl:message name="SetUserOofSettingsSoapOut">
  <wsdl:part name="SetUserOofSettingsResult" element="tns:SetUserOofSettingsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
SetUserOofSettingsResult	m:SetUserOofSettingsResponse (section 3.1.4.2.2.2)	Specifies the SOAP body of the response that contains the requested OOF settings.
ServerVersion	t:ServerVersionInfo [MS-OXWSCDATA]	Specifies a SOAP header that

Part name	Element/type	Description
	section 2.2.3.12)	identifies the server version for the response.

3.1.4.2.2 Elements

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

Element	Description
SetUserOofSettingsRequest	Specifies the base element for a SetUserOofSettings operation request.
SetUserOofSettingsResponse	Specifies the base element for a SetUserOofSettings operation response.
UserOofSettings	Specifies the OOF settings for a mailbox.

3.1.4.2.2.1 m:SetUserOofSettingsRequest Element

The **SetUserOofSettingsRequest** element specifies the base element for a **SetUserOofSettings** operation request.

```
<xs:element name="SetUserOofSettingsRequest"
  type="tns:SetUserOofSettingsRequest"
/>
```

3.1.4.2.2.2 m:SetUserOofSettingsResponse Element

The **SetUserOofSettingsResponse** element specifies the base element for a **SetUserOofSettings** operation response.

```
<xs:element name="SetUserOofSettingsResponse"
  type="tns:SetUserOofSettingsResponse"
/>
```

3.1.4.2.2.3 t:UserOofSettings Element

The **UserOofSettings** element specifies the OOF settings for a mailbox.

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

3.1.4.2.3 Complex Types

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

Complex type	Description
SetUserOofSettingsRequest	Specifies the arguments that are used to set a mailbox user's OOF settings.
SetUserOofSettingsResponse	Contains the response message from the SetUserOofSettings operation.

3.1.4.2.3.1 tns:SetUserOofSettingsResponse Complex Type

The **SetUserOofSettingsResponse** complex type specifies the result of a **SetUserOofSettingsRequest** complex type message attempt.

```
<xs:complexType name="SetUserOofSettingsResponse">
  <xs:sequence>
    <xs:element name="ResponseMessage"
      type="m:ResponseMessageType"
      minOccurs="0"
      maxOccurs="1"
    />
  </xs:sequence>
</xs:complexType>
```

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

Element	Type	Description
ResponseMessage	m:ResponseMessageType	Provides descriptive information about the response status. This element can be present.

3.1.4.2.3.2 tns:SetUserOofSettingsRequest Complex Type

The **SetUserOofSettingsRequest** complex type specifies the arguments that are used to set a mailbox user's OOF settings. This complex type extends the **BaseRequestType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.17.

```
<xs:complexType name="SetUserOofSettingsRequest">
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element
          maxOccurs="1"
          minOccurs="1"
          ref="t:Mailbox"
        />
        <xs:element
          maxOccurs="1"
          minOccurs="1"
          ref="t:UserOofSettings"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
```

</xs:complexType>

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

Element	Type	Description
t:Mailbox	t:mailbox (section 2.2.3.1)	Specifies the mailbox user. This element MUST be present.
t:UserOofSettings	t:UserOofSettings (section 2.2.4.1)	Specifies the OOF settings. This element MUST be present.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

4.1 GetUserOofSettings Request

The following example shows how to get a specified user's OOF settings.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <GetUserOofSettingsRequest
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <Mailbox xmlns="http://schemas.microsoft.com/exchange/services/2006/types">
        <Address>user@example.com</Address>
      </Mailbox>
    </GetUserOofSettingsRequest>
  </soap:Body>
</soap:Envelope>
```

4.2 GetUserOofSettings Response

The following example shows a successful response to a **GetUserOofSettings** operation request.

```
<?xml version="1.0" encoding="utf-8" ?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <t:ServerVersionInfo MajorVersion="8" MinorVersion="1" MajorBuildNumber="240"
MinorBuildNumber="5" xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types" />
  </soap:Header>
  <soap:Body>
    <GetUserOofSettingsResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseMessage ResponseClass="Success">
        <ResponseCode>NoError</ResponseCode>
      </ResponseMessage>
      <OofSettings xmlns="http://schemas.microsoft.com/exchange/services/2006/types">
        <OofState>Enabled</OofState>
        <ExternalAudience>All</ExternalAudience>
        <Duration>
          <StartTime>2008-02-01T00:00:00</StartTime>
          <EndTime>2008-02-02T00:00:00</EndTime>
        </Duration>
        <InternalReply>
          <Message>I am out of office. This is my internal reply.</Message>
        </InternalReply>
        <ExternalReply>
          <Message>I am out of office. This is my external reply.</Message>
        </ExternalReply>
      </OofSettings>
      <AllowExternalOof>All</AllowExternalOof>
    </GetUserOofSettingsResponse>
  </soap:Body>
</soap:Envelope>
```

4.3 SetUserOofSettings Request

The following example shows how to set a specified user's OOF settings.

```

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <SetUserOofSettingsRequest
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <Mailbox xmlns="http://schemas.microsoft.com/exchange/services/2006/types">
        <Address>ul@example.com</Address>
        <RoutingType>SMTP</RoutingType>
      </Mailbox>
      <UserOofSettings xmlns="http://schemas.microsoft.com/exchange/services/2006/types">
        <OofState>Enabled</OofState>
        <ExternalAudience>All</ExternalAudience>
        <InternalReply>
          <Message>I am out of office. This is my internal reply.</Message>
        </InternalReply>
        <ExternalReply>
          <Message>I am out of office. This is my external reply.</Message>
        </ExternalReply>
      </UserOofSettings>
    </SetUserOofSettingsRequest>
  </soap:Body>
</soap:Envelope>

```

4.4 SetUserOofSettings Successful Response

The following example shows a successful response to a **SetUserOofSettings** operation request.

```

<?xml version="1.0" encoding="utf-8" ?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <t:ServerVersionInfo MajorVersion="8" MinorVersion="1" MajorBuildNumber="240"
MinorBuildNumber="5" xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types" />
  </soap:Header>
  <soap:Body>
    <SetUserOofSettingsResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseMessage ResponseClass="Success">
        <ResponseCode>NoError</ResponseCode>
      </ResponseMessage>
    </SetUserOofSettingsResponse>
  </soap:Body>
</soap:Envelope>

```

4.5 SetUserOofSettings Failure Response

The following example shows an unsuccessful response to a **SetUserOofSettings** operation request.

```

<?xml version="1.0" encoding="utf-8" ?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <t:ServerVersionInfo MajorVersion="8" MinorVersion="1" MajorBuildNumber="240"
MinorBuildNumber="5" xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types" />
  </soap:Header>
  <soap:Body>
    <SetUserOofSettingsResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">

```

```
<ResponseMessage ResponseClass="Error">
  <MessageText>The scheduled Out of Office duration is not valid.</MessageText>
  <ResponseCode>ErrorInvalidScheduledOofDuration</ResponseCode>
  <DescriptiveLinkKey>0</DescriptiveLinkKey>
  <MessageXml>
    <ExceptionType
xmlns="http://schemas.microsoft.com/exchange/services/2006/errors">Microsoft.Exchange.InfoWor
ker.Common.OOF.InvalidScheduledOofDuration</ExceptionType>
    <ExceptionCode
xmlns="http://schemas.microsoft.com/exchange/services/2006/errors">158</ExceptionCode>
  </MessageXml>
</ResponseMessage>
</SetUserOofSettingsResponse>
</soap:Body>
</soap:Envelope>
```

Preliminary

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

Preliminary

6 Appendix A: Full WSDL

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

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

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

This section contains the contents of the MS-OXWOOF.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"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
  <wsdl:types>
    <xs:schema id="messages" elementFormDefault="qualified" version="Exchange2007_SP1"
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">
      <xs:include schemaLocation="MS-OXWOOF-messages.xsd"/>
    </xs:schema>
  </wsdl:types>
  <wsdl:message name="GetUserOofSettingsSoapIn">
    <wsdl:part name="GetUserOofSettingsRequest" element="tns:GetUserOofSettingsRequest"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  </wsdl:message>
  <wsdl:message name="GetUserOofSettingsSoapOut">
    <wsdl:part name="GetUserOofSettingsResult" element="tns:GetUserOofSettingsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="SetUserOofSettingsSoapIn">
    <wsdl:part name="SetUserOofSettingsRequest" element="tns:SetUserOofSettingsRequest"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  </wsdl:message>
  <wsdl:message name="SetUserOofSettingsSoapOut">
    <wsdl:part name="SetUserOofSettingsResult" element="tns:SetUserOofSettingsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="GetUserOofSettings">
      <wsdl:input message="tns:GetUserOofSettingsSoapIn"/>
      <wsdl:output message="tns:GetUserOofSettingsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="SetUserOofSettings">
      <wsdl:input message="tns:SetUserOofSettingsSoapIn"/>
      <wsdl:output message="tns:SetUserOofSettingsSoapOut"/>
    </wsdl:operation>
  </wsdl:portType>
</wsdl:definitions>
```

```

</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 transport="http://schemas.xmlsoap.org/soap/http" style="document" />
  <wsdl:operation name="GetUserOofSettings">
    <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetUserOofSettings"/
>
    <wsdl:input>
      <soap:header message="tns:GetUserOofSettingsSoapIn" part="Impersonation"
use="literal" />
      <soap:body parts="GetUserOofSettingsRequest" use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body parts="GetUserOofSettingsResult" use="literal" />
      <soap:header message="tns:GetUserOofSettingsSoapOut" part="ServerVersion"
use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="SetUserOofSettings">
    <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SetUserOofSettings"/
>
    <wsdl:input>
      <soap:header message="tns:SetUserOofSettingsSoapIn" part="Impersonation"
use="literal" />
      <soap:body parts="SetUserOofSettingsRequest" use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body parts="SetUserOofSettingsResult" use="literal" />
      <soap:header message="tns:SetUserOofSettingsSoapOut" part="ServerVersion"
use="literal" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
</wsdl:definitions>

```

Preview

7 Appendix B: Full XML Schema

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

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

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

7.1 Messages Schema

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

MS-OXWOOF-messages.xsd references the files listed in the following table. For this messages schema file to operate correctly, the two referenced files have to be present in the folder that contains the WSDL and messages schema files for this protocol.

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

```
<?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="Exchange2016" id="messages">
  <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWOOF-types.xsd"/>
  <xs:complexType name="GetUserOofSettingsRequest">
    <xs:complexContent mixed="false">
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element minOccurs="1" maxOccurs="1" ref="t:Mailbox"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetUserOofSettingsRequest" type="tns:GetUserOofSettingsRequest"/>
  <xs:complexType name="GetUserOofSettingsResponse">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="ResponseMessage"
type="m:ResponseMessageType"/>
      <xs:element minOccurs="0" maxOccurs="1" ref="t:OofSettings"/>
      <xs:element minOccurs="0" maxOccurs="1" name="AllowExternalOof"
type="t:ExternalAudience"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="GetUserOofSettingsResponse" type="tns:GetUserOofSettingsResponse"/>
  <xs:complexType name="SetUserOofSettingsRequest">
    <xs:complexContent mixed="false">
      <xs:extension base="m:BaseRequestType">
```

```

    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" ref="t:Mailbox"/>
      <xs:element minOccurs="1" maxOccurs="1" ref="t:UserOofSettings"/>
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>
<xs:element name="SetUserOofSettingsRequest" type="tns:SetUserOofSettingsRequest"/>
<xs:complexType name="SetUserOofSettingsResponse">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ResponseMessage"
type="m:ResponseMessageType"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="SetUserOofSettingsResponse" type="tns:SetUserOofSettingsResponse"/>
</xs:schema>

```

7.2 Types Schema

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

MS-OXWOOF-types.xsd references the file listed in the following table. For this types schema file to operate correctly, this referenced 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-types.xsd	[MS-OXWSCDATA] section 7.2

```

<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified" version="Exchange2016" id="types">
  <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
<xs:include schemaLocation="MS-OXWSCDATA-types.xsd" />
  <xs:element name="Mailbox" type="t:EmailAddress"/>
  <xs:simpleType name="OofState">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Disabled"/>
      <xs:enumeration value="Enabled"/>
      <xs:enumeration value="Scheduled"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="ExternalAudience">
    <xs:restriction base="xs:string">
      <xs:enumeration value="None"/>
      <xs:enumeration value="Known"/>
      <xs:enumeration value="All"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:complexType name="UserOofSettings">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="OofState" type="t:OofState"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ExternalAudience"
type="t:ExternalAudience"/>
      <xs:element minOccurs="0" maxOccurs="1" name="Duration" type="t:Duration"/>
      <xs:element minOccurs="0" maxOccurs="1" name="InternalReply" type="t:ReplyBody"/>
      <xs:element minOccurs="0" maxOccurs="1" name="ExternalReply" type="t:ReplyBody"/>
    </xs:sequence>
  </xs:complexType>

```

```
<xs:element name="OofSettings" type="t:UserOofSettings"/>  
<xs:element name="UserOofSettings" type="t:UserOofSettings"/>  
</xs:schema>
```

Preliminary

8 Appendix C: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include released service packs.

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

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

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

[<1> Section 2.2.4.1](#): Exchange 2007 does not require that the <Duration> element be specified in UTC.

[<2> Section 3.1.4.1](#): Exchange 2007, Exchange 2010, and Microsoft Exchange Server 2010 Service Pack 1 (SP1) do not include the **Impersonation** header as part of the WSDL **input** element.

[<3> Section 3.1.4.1.1.1](#): Exchange 2007, Exchange 2010, and Exchange 2010 SP1 do not use the **RequestVersion** header. The **RequestVersion** header was introduced in Microsoft Exchange Server 2010 Service Pack 2 (SP2).

[<4> Section 3.1.4.2](#): Exchange 2007 and Exchange 2010 do not include the **Impersonation** header as part of the WSDL **input** element. The Impersonation header was introduced in Exchange 2010 SP2.

[<5> Section 3.1.4.2.1.1](#): Exchange 2007, Exchange 2010, and Exchange 2010 SP1 do not use the **RequestVersion** header. The **RequestVersion** header was introduced in Exchange 2010 SP2.

9 Change Tracking

This section identifies changes that were made to this document since the last release. 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.
- The 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 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 changes were introduced. Minor editorial and formatting changes may have been made, but the technical content of the document is identical to the last released version.

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

- New content added.
- Content updated.
- Content removed.
- New product behavior note added.
- Product behavior note updated.
- Product behavior note removed.
- New protocol syntax added.
- Protocol syntax updated.
- Protocol syntax removed.
- New content added due to protocol revision.
- Content updated due to protocol revision.
- Content removed due to protocol revision.
- New protocol syntax added due to protocol revision.
- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.
- Obsolete document removed.

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

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

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.
- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

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

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
8 Appendix C: Product Behavior	Added Exchange 2016 and Outlook 2016 to list of applicable products.	Y	Content update.

Preliminary

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