Out of Office (OOF) Web Service Protocol

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### Revision Summary

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

1.1 Glossary

This document uses the following terms:

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

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.

meeting: An event with attendees.

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, the contents of the message, and how calendar events should be handled in that period.

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
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".


1.2.2 Informative References


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.

Additionally, the protocol client can configure how calendar events are handled during the period of time that a user is away: automatically decline incoming meetings, decline existing meetings, and create an OOF event in the user's calendar.

### 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.

![Layering Diagram](image)

**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 2.2.3.10.

• **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.
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.

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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.

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<td>t:Mailbox</td>
<td>Identifies a user's mailbox by using an e-mail address.</td>
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2.2.3.1 \texttt{t:Mailbox Element}

The \texttt{Mailbox} element identifies a user's \texttt{mailbox} by using an e-mail address.

\begin{verbatim}
<xs:element name="Mailbox"
type="t:EmailAddress" />
\end{verbatim}

For details about the \texttt{t:EmailAddress} complex type, see [MS-OXWSCDATA] section 2.2.4.30.

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.

<table>
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<td>\texttt{t:ArrayOfEventIDType}</td>
<td>Specifies the array containing event IDs.</td>
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<tr>
<td>\texttt{t:UserOofSettings}</td>
<td>Specifies the OOF settings.</td>
</tr>
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</table>

2.2.4.1 \texttt{t:ArrayOfEventIDType Complex Type}

The \texttt{ArrayOfEventIDType} complex type specifies the array containing event IDs.

\begin{verbatim}
<xs:complexType name="ArrayOfEventIDType">
<xs:choice minOccurs="0" maxOccurs="unbounded">
  <xs:element name="EventToDeleteID" type="xs:string" /> 
</xs:choice>
</xs:complexType>
\end{verbatim}

The following table lists the child elements of the \texttt{t:ArrayOfEventIDType} complex type.

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<td>EventToDeleteID</td>
<td>\texttt{xs:string} \cite{XMLSCHEMA2/2}</td>
<td>ID of an event.</td>
</tr>
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</table>

2.2.4.2 \texttt{t:UserOofSettings Complex Type}

The \texttt{UserOofSettings} complex type specifies the OOF settings.

\begin{verbatim}
<xs:complexType name="UserOofSettings">
  <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:element minOccurs="0" maxOccurs="1" name="DeclineMeetingReply" type="t:ReplyBody"/> 
</xs:complexType>
\end{verbatim}
The following table lists the child elements of the `<t:UserOofSettings>` complex type.

<table>
<thead>
<tr>
<th>Element</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OofState</td>
<td><code>&lt;t:OofState&gt;</code> (section 2.2.5.2)</td>
<td>Indicates the user's <strong>Out of Office (OOF)</strong> status. This element <strong>MUST</strong> be present.</td>
</tr>
<tr>
<td>ExternalAudience</td>
<td><code>&lt;t:ExternalAudience&gt;</code> (section 2.2.5.1)</td>
<td>Indicates how <strong>external users</strong> are handled. This element <strong>MUST</strong> be present.</td>
</tr>
<tr>
<td>Duration</td>
<td><code>&lt;t:Duration&gt;</code> ([MS-OXWSCDATA] section 2.2.4.28)</td>
<td>Indicates the duration for which the OOF status is enabled if the OOF state in the <code>OofState</code> element is set to &quot;Scheduled&quot;. The start and end times for this period of time <strong>SHOULD</strong> be specified in <strong>Coordinated Universal Time (UTC)</strong>. This element can be present. It <strong>MUST</strong> be present if the <code>OofState</code> element is set to &quot;Scheduled&quot; when calling the <code>SetUserOofSettings</code> operation (section 3.1.4.1).</td>
</tr>
<tr>
<td>InternalReply</td>
<td><code>&lt;t:ReplyBody&gt;</code> ([MS-OXWSCDATA] section 2.2.4.65)</td>
<td>Contains the body of the response <strong>OOF message</strong> that is sent to <strong>internal users</strong>. This element can be present.</td>
</tr>
<tr>
<td>ExternalReply</td>
<td><code>&lt;t:ReplyBody&gt;</code></td>
<td>Contains the body of the response OOF message that is sent to external users. This element can be present.</td>
</tr>
<tr>
<td>DeclineMeetingReply</td>
<td><code>&lt;t:ReplyBody&gt;</code></td>
<td>Sets the body of the response that is sent when incoming or existing <strong>meetings</strong> are automatically declined. This element can be present.</td>
</tr>
<tr>
<td>DeclineEventsForScheduledOOF</td>
<td><code>xs:boolean</code> ([XMLSCHEMA2])</td>
<td>Indicates whether some existing meetings that will occur during the scheduled OOF duration ought to be automatically declined. True indicates some existing meetings that will occur during the scheduled OOF duration are declined and removed from the calendar. The specific meetings will be listed by</td>
</tr>
<tr>
<td>Element</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DeclineAllEventsForScheduledOOF</td>
<td>xs:boolean</td>
<td>Indicates whether all existing meetings that will occur during the scheduled OOF duration ought to be automatically declined. True indicates all existing meetings that will occur during the scheduled OOF duration are declined and removed from the calendar. This element can be present.</td>
</tr>
<tr>
<td>CreateOOFEvent</td>
<td>xs:boolean</td>
<td>Indicates whether an Out of Office (OOF) appointment ought to be created in the user's calendar. The subject for this event can be specified by the OOFEventSubject element. This element can be present.</td>
</tr>
<tr>
<td>OOFEventSubject</td>
<td>xs:string</td>
<td>Specifies the subject of the Out of Office (OOF) appointment. This element can be present.</td>
</tr>
<tr>
<td>AutoDeclineFutureRequestsWhenOOF</td>
<td>xs:boolean</td>
<td>Indicates whether incoming meetings that will occur during the scheduled OOF duration ought to be automatically declined. True indicate new meeting requests that are received during the scheduled time period are automatically declined. This element can be present.</td>
</tr>
<tr>
<td>EventsToDeleteIDs</td>
<td>t:ArrayOfEventIDType</td>
<td>Array containing the IDs for existing meetings that ought to be declined. This element can be present.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Simple type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>t:ExternalAudience</td>
<td>Specifies a value that indicates to whom external OOF messages are to be sent.</td>
</tr>
<tr>
<td>t:OofState</td>
<td>Specifies the state of the user's mailbox with respect to OOF.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Specifies that mail sent from external users will not get an OOF message.</td>
</tr>
<tr>
<td>Known</td>
<td>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.</td>
</tr>
<tr>
<td>All</td>
<td>Specifies that the external OOF message will be sent to all external users.</td>
</tr>
</tbody>
</table>

### 2.2.5.2 t:OofState Simple Type

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

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

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disabled</td>
<td>Specifies that OOF behavior is disabled.</td>
</tr>
<tr>
<td>Enabled</td>
<td>Specifies that the OOF state is enabled; this indicates that OOF messages will be sent.</td>
</tr>
<tr>
<td>Scheduled</td>
<td>Specifies that the OOF status is set to Enabled for the time period defined by the Duration element.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetUserOofSettings</td>
<td>Gets a user's OOF settings and OOF messages from his or her mailbox.</td>
</tr>
<tr>
<td>SetUserOofSettings</td>
<td>Sets a user's OOF settings and OOF messages in his or her mailbox.</td>
</tr>
</tbody>
</table>

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

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

```xml
<soap:Body>
<soap:Fault>
<faultcode>soap:Client</faultcode>
<faultactor>https://CAS01.example.com/EWS/Exchange.asmx</faultactor>
<detail>
</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.

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetUserOofSettingsSoapIn</td>
<td>Specifies the request that retrieves a user’s <strong>OOF settings</strong>.</td>
</tr>
</tbody>
</table>
### 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.

```xml
<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.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetUserOofSettingsRequest</td>
<td><code>m:GetUserOofSettingsRequest</code> (section 3.1.4.1.2.1)</td>
<td>Specifies the SOAP body of the request to get the OOF settings for a mailbox.</td>
</tr>
<tr>
<td>Impersonation</td>
<td><code>t:ExchangeImpersonation</code> ([MS-OXWSCDATA] section 2.2.3.3)</td>
<td>Specifies a SOAP header that identifies the user who the client application is impersonating.</td>
</tr>
<tr>
<td>RequestVersion</td>
<td><code>t:RequestServerVersion</code> ([MS-OXWSCDATA] section 2.2.3.9)</td>
<td>Specifies a SOAP header that identifies the schema version for the <code>GetUserOofSettings</code> operation request.</td>
</tr>
</tbody>
</table>

### 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.

```xml
<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.
### 3.1.4.1.2 Elements

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetUserOofSettingsRequest</td>
<td>Specifies the root element in a <strong>GetUserOofSettings</strong> operation request.</td>
</tr>
<tr>
<td>GetUserOofSettingsResponse</td>
<td>Specifies the root element in a <strong>GetUserOofSettings</strong> operation response.</td>
</tr>
<tr>
<td>OofSettings</td>
<td>Specifies the <strong>OOF settings</strong> for a <strong>mailbox</strong>.</td>
</tr>
</tbody>
</table>

#### 3.1.4.1.2.1 m:GetUserOofSettingsRequest Element

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

```xml
<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.

```xml
<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**.

```xml
<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.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetUserOofSettingsRequest</td>
<td>Contains the arguments that are used to get a user’s <strong>OOF settings</strong>.</td>
</tr>
<tr>
<td>GetUserOofSettingsResponse</td>
<td>Contains the <strong>response message</strong> from the <strong>GetUserOofSettings</strong> operation.</td>
</tr>
</tbody>
</table>

### 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.

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ResponseMessage</strong></td>
<td><strong>m:ResponseMessageType</strong> ([MS-OXWSCDATA] section 2.2.4.67)</td>
<td>Provides descriptive information about the response status. This element MUST be present.</td>
</tr>
<tr>
<td><strong>t:OofSettings</strong></td>
<td><strong>t:OofSettings</strong> (section 3.1.4.1.2.3)</td>
<td>Contains the OOF settings. This element can be present.</td>
</tr>
<tr>
<td><strong>AllowExternalOof</strong></td>
<td><strong>t:ExternalAudience</strong> (section 2.2.5.1)</td>
<td>Contains a value that identifies the recipients to whom external <strong>OOF messages</strong> are sent. This element can be present.</td>
</tr>
</tbody>
</table>

### 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.

```xml
<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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>t:Mailbox</td>
<td>t:Mailbox (section 2.2.3.1)</td>
<td>Specifies the user for whom OOF settings are to be retrieved. This element MUST be present.</td>
</tr>
</tbody>
</table>

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.

```xml
<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>

```xml
<wSDL:operation name="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.

<table>
<thead>
<tr>
<th>Error value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ErrorInvalidScheduledOofDuration</td>
<td>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 &quot;Scheduled&quot;.</td>
</tr>
<tr>
<td>ErrorInvalidUserOofSettings</td>
<td>Occurs when the request is missing an internal or external reply.</td>
</tr>
</tbody>
</table>

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.

```xml
<soap:Body>
  <soap:Fault>
    <faultcode>soap:Client</faultcode>
    <faultactor>https://CAS01.example.com/EWS/Exchange.asmx</faultactor>
    <detail>
    </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.

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SetUserOofSettingsSoapIn</td>
<td>Specifies the request that sets a user’s <strong>OOF settings</strong>.</td>
</tr>
<tr>
<td>SetUserOofSettingsSoapOut</td>
<td>Specifies the response from the SetUserOofSettings operation.</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SetUserOfSettingsRequest</td>
<td>m:SetUserOfSettingsRequest</td>
<td>Specifies the SOAP body of the request to set OOF settings for a mailbox.</td>
</tr>
<tr>
<td></td>
<td>(section 3.1.4.2.2.1)</td>
<td></td>
</tr>
<tr>
<td>Impersonation</td>
<td>t:ExchangeImpersonation</td>
<td>Specifies a SOAP header that identifies the user who the client application is impersonating.</td>
</tr>
<tr>
<td></td>
<td>([MS-OXWSCDATA] section 2.2.3.3)</td>
<td></td>
</tr>
<tr>
<td>RequestVersion</td>
<td>t:RequestServerVersion</td>
<td>Specifies a SOAP header that identifies the schema version for the SetUserOfSettings operation request.</td>
</tr>
<tr>
<td></td>
<td>([MS-OXWSCDATA] section 2.2.3.9)</td>
<td></td>
</tr>
</tbody>
</table>

### 3.1.4.2.1.2 tns:SetUserOfSettingsSoapOut

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

```
<wsdl:message name="SetUserOfSettingsSoapOut">
  <wsdl:part name="SetUserOfSettingsResult" element="tns:SetUserOfSettingsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SetUserOfSettingsResult</td>
<td>m:SetUserOfSettingsResponse</td>
<td>Specifies the SOAP body of the response that contains the requested OOF settings.</td>
</tr>
<tr>
<td></td>
<td>(section 3.1.4.2.2.2)</td>
<td></td>
</tr>
<tr>
<td>ServerVersion</td>
<td>t:ServerVersionInfo</td>
<td>Specifies a SOAP header that identifies the server version for the response.</td>
</tr>
<tr>
<td></td>
<td>([MS-OXWSCDATA] section 2.2.3.10)</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SetUserOofSettingsRequest</td>
<td>Specifies the base element for a SetUserOofSettings operation request.</td>
</tr>
<tr>
<td>SetUserOofSettingsResponse</td>
<td>Specifies the base element for a SetUserOofSettings operation response.</td>
</tr>
<tr>
<td>UserOofSettings</td>
<td>Specifies the OOF settings for a mailbox.</td>
</tr>
</tbody>
</table>

3.1.4.2.2.1 m:SetUserOofSettingsRequest Element

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

```xml
<x:s: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.

```xml
<x:s: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.

```xml
<x:s: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.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SetUserOofSettingsRequest</td>
<td>Specifies the arguments that are used to set a mailbox user's OOF settings.</td>
</tr>
<tr>
<td>SetUserOofSettingsResponse</td>
<td>Contains the response message from the SetUserOofSettings operation.</td>
</tr>
</tbody>
</table>

3.1.4.2.3.1 tns:SetUserOofSettingsResponse Complex Type
The **SetUserOofSettingsResponse** complex type specifies the result of a **SetUserOofSettingsRequest** complex type message attempt.

```xml
<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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ResponseMessage</td>
<td>m:ResponseMessageType</td>
<td>Provides descriptive information about the response status. This element can be present.</td>
</tr>
</tbody>
</table>

### 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.

```xml
<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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>t:Mailbox</td>
<td>t:mailbox (section 2.2.3.1)</td>
<td>Specifies the mailbox user. This element MUST be present.</td>
</tr>
</tbody>
</table>
### 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
<?xml version="1.0" encoding="utf-8"?>
  <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
<?xml version="1.0" encoding="utf-8"?>
  xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
  <t:ServerVersionInfo MajorVersion="8" MinorVersion="1" MajorBuildNumber="240" MinorBuildNumber="5" />
  <soap:Header>
  </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>
        <DeclineMeetingReply>
          <Message />]
        </DeclineMeetingReply>
        <DeclineEventsForScheduledOOF>false</DeclineEventsForScheduledOOF>
        <CreateOOFEvent>true</CreateOOFEvent>
        <AutoDeclineFutureRequestsWhenOOF>true</AutoDeclineFutureRequestsWhenOOF>
      </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
<?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>u1@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>
        <DeclineMeetingReply>
          <Message>I will be out of office. Cannot attend your meeting.</Message>
        </DeclineMeetingReply>
        <DeclineEventsForScheduledOOF>false</DeclineEventsForScheduledOOF>
        <DeclineAllEventsForScheduledOOF>false</DeclineAllEventsForScheduledOOF>
        <CreateOOFEvent>true</CreateOOFEvent>
        <OOFEventSubject>Out of Office</OOFEventSubject>
        <AutoDeclineFutureRequestsWhenOOF>true</AutoDeclineFutureRequestsWhenOOF>
      </UserOofSettings>
    </SetUserOofSettingsRequest>
  </soap:Body>
</soap:Envelope>
```

4.4 SetUserOofSettings Successful Response

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

```xml
<?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:Header>
  </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
<?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:Header>
  </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>
```
<?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>
<ms:ServerVersionInfo MajorVersion="8" MinorVersion="1" MajorBuildNumber="240"
MinorBuildNumber="5" xmlns:ms="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
<ExceptionCode
</MessageXml>
</ResponseMessage>
</soap:Body>
</soap:Envelope>
5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.
6 Appendix A: Full WSDL

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

<table>
<thead>
<tr>
<th>File name</th>
<th>Description</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OXWOOF.wsdl</td>
<td>Contains the WSDL for the implementation of this protocol.</td>
<td>6</td>
</tr>
<tr>
<td>MS-OXWOOF-messages.xsd</td>
<td>Contains the XML schema message definitions that are used in this protocol.</td>
<td>7.1</td>
</tr>
<tr>
<td>MS-OXWOOF-types.xsd</td>
<td>Contains the XML schema type definitions that are used in this protocol.</td>
<td>7.2</td>
</tr>
</tbody>
</table>

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
<?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:msxsi="http://www.w3.org/2001/XMLSchema-instance"
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="GetUserOofSettingsResponse" 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="SetUserOofSettingsResponse" 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:binding name="ExchangeServiceBinding" type="tns:ExchangeServicePortType">
</wsdl:binding>
```
<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
    <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:binding>
<wsdl:operation name="SetUserOofSettings">
  <soap:operation
    <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>
7 Appendix B: Full XML Schema

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

<table>
<thead>
<tr>
<th>Schema name</th>
<th>Prefix</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Messages schema</td>
<td>m:</td>
<td>7.1</td>
</tr>
<tr>
<td>Types schema</td>
<td>t:</td>
<td>7.2</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>File name</th>
<th>Defining specification/section</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OXWSCDATA-messages.xsd</td>
<td>[MS-OXWSCDATA] section 7.2</td>
</tr>
<tr>
<td>MS-OXWOOF-types.xsd</td>
<td>7.2</td>
</tr>
</tbody>
</table>

```xml
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
    xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
    xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
    xmlns:xs="http://www.w3.org/2001/XMLSchema"
    targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
    xmlns:s="http://schemas.microsoft.com/exchange/services/2006/types"
    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" name="OofSettings" type="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:extension>
      </xs:complexContent>
  </xs:complexType>
  <xs:element name="SetUserOofSettingsRequest" type="tns:SetUserOofSettingsRequest"/>
</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.

<table>
<thead>
<tr>
<th>File name</th>
<th>Defining specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OXWSCDATA-types.xsd</td>
<td>[MS-OXWSCDATA] section 7.2</td>
</tr>
</tbody>
</table>

"<?xml version="1.0" encoding="utf-8"?>
<xs:schema
   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:include
     schemaLocation="MS-OXWSCDATA-types.xsd"/>
  <xs:element
     name="Mailbox"
     type="tns: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="ArrayOfEventIDType">
    <xs:choice
      minOccurs="0" maxOccurs="unbounded">
      <xs:element
        name="EventToDeleteID"
        type="xs:string"/>
    </xs:choice>
  </xs:complexType>
  <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"/>
      <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:schema>
<xs:element minOccurs="0" maxOccurs="1" name="DeclineMeetingReply" type="t:ReplyBody" />
<xs:element minOccurs="0" maxOccurs="1" name="DeclineEventsForScheduledOOF" type="xs:boolean" />
<xs:element minOccurs="0" maxOccurs="1" name="DeclineAllEventsForScheduledOOF" type="xs:boolean" />
<xs:element minOccurs="0" maxOccurs="1" name="CreateOOFEvent" type="xs:boolean" />
<xs:element minOccurs="0" maxOccurs="1" name="OOFEventSubject" type="xs:string" />
<xs:element minOccurs="0" maxOccurs="1" name="AutoDeclineFutureRequestsWhenOOF" type="xs:boolean" />
<xs:element minOccurs="0" maxOccurs="1" name="EventsToDeleteIDs" type="t:ArrayOfEventIDType" />
</xs:complexType>
<xs:element name="OofSettings" type="t:UserOofSettings"/>
<xs:element name="UserOofSettings" type="t:UserOofSettings"/>
</xs:schema>
8 Appendix C: Product Behavior

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

- Microsoft Exchange Server 2007
- Microsoft Exchange Server 2010
- Microsoft Exchange Server 2013
- Microsoft Exchange Server 2016
- Microsoft Office Outlook 2007
- Microsoft Outlook 2010
- Microsoft Outlook 2013
- Microsoft Outlook 2016
- Microsoft Exchange Server 2019
- Microsoft Outlook 2019
- Microsoft Outlook 2021

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

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

<1> Section 2.2.4.2: 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

No table of changes is available. The document is either new or has had no changes since its last release.
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