

[MS-OXWOOF]: Out of Office (OOF) Web Service Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
04/04/2008	0.1	Major	Initial Availability.
06/27/2008	1.0	Major	Initial Release.
08/06/2008	1.0.1	Editorial	Revised and edit technical content.
09/03/2008	1.0.2	Editorial	Updated references.
12/03/2008	1.0.3	Editorial	Updated IP notice.
02/04/2009	1.0.4	Editorial	Revised and edited technical content.
03/04/2009	1.0.5	Editorial	Revised and edited technical content.
04/10/2009	2.0	Major	Updated technical content and applicable product releases.
07/15/2009	3.0	Major	Revised and edited for technical content.
11/04/2009	3.1.0	Minor	Updated the technical content.
02/10/2010	4.0.0	Major	Updated and revised the technical content.

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1 Introduction

When users know that they are going to be away from work or are unable to respond to mail, they can set up a response message that can be sent automatically to people who send them mail. This response message is called the **Out of Office (OOF)** message. The conditions in which the **OOF message** is sent are determined by the **OOF settings**.

This document specifies the **XML** structures that represent the configuration and retrieval of OOF settings.

1.1 Glossary

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

Coordinated Universal Time (UTC)
external users
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)
OOF message
Out of Office (OOF)
Secure Sockets Layer (SSL)
Simple Mail Transfer Protocol (SMTP)
SOAP fault
Web Services Description Language (WSDL)
WSDL message
WSDL port type
XML
XML schema

The following terms are specific to this document:

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

internal users: Users who are within the organization.

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

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

1.2 References

1.2.1 Normative References

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

[MS-OXGLOS] Microsoft Corporation, "[Exchange Server Protocols Master Glossary](#)", June 2008.

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

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

[RFC3066] Alvestrand, H., "Tags for the Identification of Languages", RFC 3066, January 2001, <http://www.ietf.org/rfc/rfc3066.txt>.

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

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

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

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

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

1.2.2 Informative References

None.

1.3 Protocol Overview

The Out of Office (OOF) Web Service protocol defines the interaction between a client and a server that configures OOF settings and OOF messages for users.

The OOF Web service also enables a user to either turn on their OOF message or schedule their OOF message so that it is enabled for the duration they specify.

1.4 Relationship to Other Protocols

Clients contact the OOF Web service by using the SOAP protocol [\[SOAP1.1\]](#) over **HTTP** and **HTTPS** [\[RFC2616\]](#), as shown in the following figures.

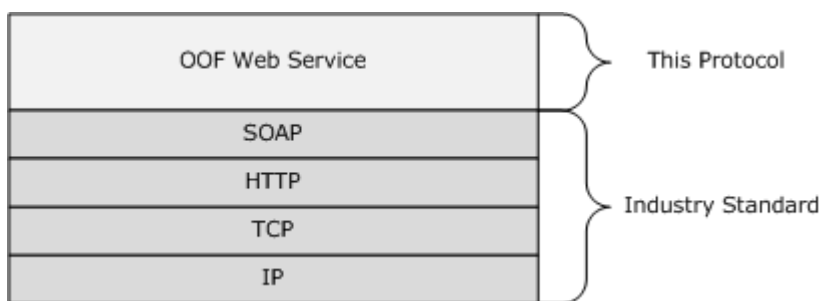


Figure 1: SOAP over HTTP

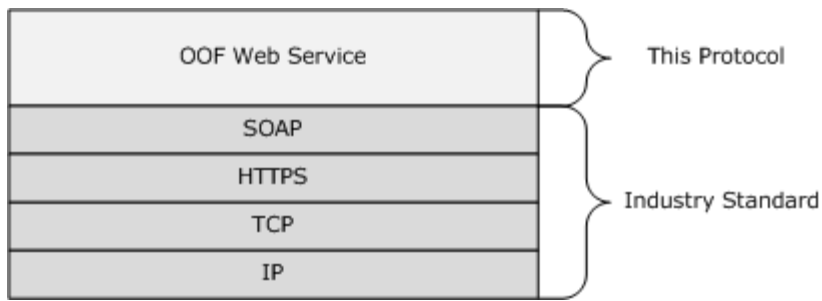


Figure 2: SOAP over HTTPS

1.5 Prerequisites/Preconditions

None.

1.6 Applicability Statement

The OOF Web service protocol is applicable to SOAP-based clients [\[SOAP1.1\]](#).

1.7 Versioning and Capability Negotiation

- **Supported Transports:** This protocol uses SOAP 1.1.
- **Protocol Versions:** This protocol has a single **WSDL port type**.
- **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

Soap 1.1, as specified in [\[SOAP1.1\]](#), is supported.

2.2 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

Namespaces are specified in [\[XMLNS\]](#). Clients can use any valid prefix. The following table lists the prefixes that are used throughout this specification.

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

2.2.2 Simple Types

2.2.2.1 t:ExternalAudience

The **ExternalAudience** type specifies a value that determines to whom **external OOF messages** are 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>
```

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

Value	Description
All	Specifies that the external OOF message SHOULD be sent to all external users.

2.2.2.2 t:OofState

The **OofState** 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>
```

Value	Description
Disabled	Specifies that OOF behavior is disabled.
Enabled	Specifies that 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 identified by the Duration element.

2.2.3 Complex Types

2.2.3.1 t:UserOofSettings

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

```
<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>
```

Element	Type	Definition
OofState	t:OofState	Indicates the user's OOF state. MUST be present.
ExternalAudience	t:ExternalAudience	Indicates how external users are handled. MUST be present.
Duration	t:Duration	Indicates the duration for which the OOF status is enabled if the OOF state in the OofState element is set to Scheduled. The times MUST be in the time zone of the mailbox. This is ignored if the OofState element is set to Enabled or

Element	Type	Definition
		Disabled. Can be present.
InternalReply	t:ReplyBody	Contains the body of the OOF response message that is sent to internal users . Can be present.
ExternalReply	t:ReplyBody	Contains the body of the OOF response message that is sent to external users. Can be present.

2.2.4 Elements

2.2.4.1 t:Mailbox

For details about the **Mailbox** type, see section [2.2.3.24](#).

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

2.2.5 Attributes

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

2.2.6 Groups

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

2.2.7 Attribute Groups

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

2.2.8 Message Syntax

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

3 Protocol Details

This protocol specifies a way of getting OOF settings and configuring OOF settings 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

The Out of Office (OOF) Web Service Protocol has two operations to manipulate the OOF settings.

Operation	Description
GetUserOofSettings	Specifies how to get the OOF settings and OOF messages from a user's mailbox.
SetUserOofSettings	Specifies how to set the OOF settings and OOF messages in a user's mailbox.

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.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

This protocol includes the operations listed in the following table.

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

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

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

Request

Message Format	Description
tns:GetUserOofSettingsSoapIn	Specifies SOAP message to get the OOF settings and OOF messages from a user's mailbox.

Response

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

3.1.4.1.1 GetUserOofSettings Simple Types

3.1.4.1.2 GetUserOofSettings Complex Types

3.1.4.1.2.1 m:GetUserOofSettingsResponse

The **GetUserOofSettingsResponse** type contains the response message to the **GetUserOofSettings** request and the OOF settings for the user as specified in the **GetUserOofSettings** request.

```
<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>
```

Element	Type	Definition
ResponseMessage	m:ResponseMessageType	Provides descriptive information about the response status. MUST be present.
<None>	t:OofSettings	Contains the OOF settings. Can be present.
AllowExternalOof	t:ExternalAudience	Contains a value that identifies to whom external OOF messages are sent. Can be present.

3.1.4.1.2.2 m:GetUserOofSettingsRequest

The **GetUserOofSettingsRequest** type contains the arguments that are used to get a user's OOF settings.

```

<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>

```

Element	Type	Definition
<None>	t:Mailbox	Specifies the user for which OOF settings are to be retrieved. MUST be present.

The caller MUST be the owner of the mailbox specified in the request.

3.1.4.1.3 GetUserOofSettings Elements

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

3.1.4.1.4 GetUserOofSettings Attributes

This specification does not define any specific XML schema attribute definitions for this operation.

3.1.4.1.5 GetUserOofSettings Groups

This specification does not define any specific XML schema group definitions for this operation.

3.1.4.1.6 GetUserOofSettings Attribute Groups

This specification does not define any specific XML schema attribute group definitions for this operation.

3.1.4.1.7 GetUserOofSettings Messages

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

Messages	Description
tns:GetUserOofSettingsSoapIn	The request that retrieves a user's Out of Office (OOF) status.
tns:GetUserOofSettingsSoapOut	The response from a GetUserOofSettings Request .

3.1.4.1.7.1 tns:GetUserOofSettingsSoapIn

The **GetUserOofSettingsSoapIn** message contains one part, as described in the following table.

Part Name	Element/Type	Description
GetUserOofSettingsRequest	tns:GetUserOofSettingsRequest	This part specifies the request.

3.1.4.1.7.2 tns:GetUserOofSettingsSoapOut

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

Part Name	Element/Type	Description
GetUserOofSettingsResult	tns:GetUserOofSettingsResponse	This part specifies the response.
ServerVersion	t:ServerVersionInfo	This part specifies the server version for the response.

3.1.4.2 SetUserOofSettings

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

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

Parts for **SetUserOofSettingsSoapIn** WSDL message:

Part	Element/Type	Description
SetUserOofSettingsRequest	tns: SetUserOofSettingsRequest	This part contains the information required to set OOF settings and messages.

Parts for **SetUserOofSettingsSoapOut** WSDL message:

Part	Element/Type	Description
SetUserOofSettingsResult	tns:SetUserOofSettingsResponse	This part contains the response from the OOF Web service.
ServerVersion	ServerVersionInfo	Used for diagnostic purposes.

3.1.4.2.1 SetUserOofSettings Simple Types

This specification does not define any specific XML schema simple types for this operation.

3.1.4.2.2 SetUserOofSettings Complex Types

3.1.4.2.2.1 m:SetUserOofSettingsResponse

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

```
<xs:complexType name="SetUserOofSettingsResponse">
  <xs:sequence>
```

```

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

```

Element	Type	Definition
ResponseMessage	m:ResponseMessageType	Descriptive information about the response status. Can be present.

3.1.4.2.2.2 m:SetUserOofSettingsRequest

The **SetUserOofSettingsRequest** type specifies the arguments used to set a mailbox user's OOF settings.

```

<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>

```

Element	Type	Definition
<None>	t:Mailbox	Specifies the mailbox user. MUST be present.
<None>	t:UserOofSettings	Specifies the OOF settings. MUST be present.

3.1.4.2.3 SetUserOofSettings Elements

This specification does not define any specific XML schema simple types for this operation.

3.1.4.2.4 SetUserOofSettings Attributes

This specification does not define any specific XML schema attribute definitions for this operation.

3.1.4.2.5 SetUserOofSettings Groups

This specification does not define any specific XML schema group definitions for this operation.

3.1.4.2.6 SetUserOofSettings Attribute Groups

This specification does not define any specific XML schema attribute group definitions for this operation.

3.1.4.2.7 SetUserOofSettings Messages

The following WSDL message definitions are specific to this operation.

Messages	Description
tns:SetUserOofSettingsSoapIn	The request that sets a user's Out of Office (OOF) status.
tns:SetUserOofSettingsSoapOut	The response from a SetUserOofSettings Request .

3.1.4.2.7.1 tns:SetUserOofSettingsSoapIn

The **SetUserOofSettingsSoapIn** message contains one part, as described in the following table.

Part Name	Element/Type	Description
SetUserOofSettingsRequest	tns:SetUserOofSettingsRequest	This part specifies the request.

3.1.4.2.7.2 tns:SetUserOofSettingsSoapOut

3.1.5 Timer Events

None.

3.1.6 Other Local Events

The **OOF Web service** does not maintain state. If there are network problems, the client is expected to re-query the service.

3.2 ExchangeServicePortType Client Details

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

3.2.1 Abstract Data Model

The OOF service is a stateless protocol.

3.2.2 Timers

None.

3.2.3 Initialization

None.

3.2.4 Message Processing Events and Sequencing Rules

None.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

Not applicable.

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 get a user's OOF settings.

```
<?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 **SetUserOofSetting** 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 SetUserOofSetting Failure Response

The following example shows an unsuccessful response to a **SetUserOofSetting** 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>
    <SetUserOutOfSettingsResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseMessage ResponseClass="Error">
        <MessageText>The scheduled Out of Office duration is not valid.</MessageText>
        <ResponseCode>ErrorInvalidScheduledOutOfDuration</ResponseCode>
        <DescriptiveLinkKey>0</DescriptiveLinkKey>
        <MessageXml>
          <ExceptionType
xmlns="http://schemas.microsoft.com/exchange/services/2006/errors">Microsoft.Exchange.InfoWorker.Common.OOF.InvalidScheduledOutOfDuration</ExceptionType>
          <ExceptionCode
xmlns="http://schemas.microsoft.com/exchange/services/2006/errors">158</ExceptionCode>
        </MessageXml>
      </ResponseMessage>
    </SetUserOutOfSettingsResponse>
  </soap:Body>
</soap:Envelope>

```

5 Security

5.1 Security Considerations for Implementers

The OOF service does not use additional security mechanisms.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

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

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

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

6.1 WSDL

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"
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: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: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: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: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: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>

```

6.2 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 includes the files listed in the following table. For the schema file to operate correctly, these files need to be present in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

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

```

<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified" version="Exchange2010" id="types">
  <xs:import namespace="http://www.w3.org/XML/1998/namespace" />
  <xs:include schemaLocation="MS-OXWSCDATA-types.xsd" />
  <xs: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 name="OofState" type="t:OofState"/>
      <xs:element name="ExternalAudience" type="t:ExternalAudience"/>
      <xs:element name="Duration" type="t:Duration" minOccurs="0"/>
      <xs:element name="InternalReply" type="t:ReplyBody" minOccurs="0"/>
      <xs:element name="ExternalReply" type="t:ReplyBody" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="OofSettings" type="t:UserOofSettings"/>
  <xs:element name="UserOofSettings" type="t:UserOofSettings"/>
</xs:schema>

```

6.3 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-types.xsd includes the file listed in the following table. For the schema file to operate correctly, this file needs to be in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

Defining specification	File name
[MS-OXWSCDATA] , section 6.2	MS-OXWSCDATA-messages.xsd

```

<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
elementFormDefault="qualified" version="Exchange2010" id="messages">
  <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" mixed="false">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element 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 name="ResponseMessage" type="m:ResponseMessageType"/>
    <xs:element ref="t:OofSettings" minOccurs="0"/>
    <xs:element name="AllowExternalOof"
      type="t:ExternalAudience" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="GetUserOofSettingsResponse"
  type="tns:GetUserOofSettingsResponse"/>
<xs:complexType name="SetUserOofSettingsRequest" mixed="false">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element ref="t:Mailbox"/>
        <xs:element 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 name="ResponseMessage"
      type="m:ResponseMessageType" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="SetUserOofSettingsResponse" type="tns:SetUserOofSettingsResponse"/>
</xs:schema>

```

7 Appendix B: Product Behavior

The information in this specification is applicable to the following product versions. References to product versions include released service packs.

- Microsoft Office Outlook 2007
- Microsoft Exchange Server 2007
- Microsoft Outlook 2010
- Microsoft Exchange Server 2010

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

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

8 Change Tracking

This section identifies changes made to [MS-OXWOOF] protocol documentation between November 2009 and February 2010 releases. Changes are classed as major, minor, or editorial.

Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements or functionality.
- An extensive rewrite, addition, or deletion of major portions of content.
- A protocol is deprecated.
- The removal of a document from the documentation set.
- Changes made for template compliance.

Minor changes do not affect protocol interoperability or implementation. Examples are updates to fix technical accuracy or ambiguity at the sentence, paragraph, or table level.

Editorial changes apply to grammatical, formatting, and style issues.

No changes means that the document is identical to its last release.

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

- New content added.
- Content update.
- 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.
- New content added for template compliance.
- Content updated for template compliance.

- Content removed for template compliance.
- Obsolete document removed.

Editorial changes always have the revision type "Editorially updated."

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

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

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

Changes are listed in the following table. If you need further information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Revision Type
1.4 Relationship to Other Protocols	54022 Added SOAP over HTTP figure.	Y	New content added.
2.2.4 Elements	54022 Added new section.	N	New content added.
2.2.5 Attributes	54022 Added new section.	N	New content added.
2.2.6 Groups	54022 Added new section.	N	New content added.
2.2.7 Attribute Groups	54022 Added new section.	N	New content added.
2.2.8 Message Syntax	54022 Added new section.	N	New content added.
3 Protocol Details	54022 Added paragraph for template compliance.	N	New content added.
3.1 ExchangeServicePortType Server Details	54022 Modified to comply with template.	N	Content update.
3.1.1 Abstract Data Model	54022 Added paragraph for template compliance.	N	New content added.
3.1.4 Message Processing Events and Sequencing Rules	54022 Added additional section content.	N	New content added.
3.1.4.1 GetUserOofSettings	54022 Added additional description.	N	New content added.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Revision Type
3.1.4.1.1 GetUserOofSettings Simple Types	54022 Added new section.	N	New content added.
3.1.4.1.2 GetUserOofSettings Complex Types	54022 Added new section.	N	New content added.
3.1.4.1.3 GetUserOofSettings Elements	54022 Added new section.	N	New content added.
3.1.4.1.4 GetUserOofSettings Attributes	54022 Added new section.	N	New content added.
3.1.4.1.5 GetUserOofSettings Groups	54022 Added new section.	N	New content added.
3.1.4.1.6 GetUserOofSettings Attribute Groups	54022 Added new section.	N	New content added.
3.1.4.1.7 GetUserOofSettings Messages	54022 Added new section.	N	New content added.
3.1.4.1.7.1 tns:GetUserOofSettingsSoapIn	54022 Added new section.	N	New content added.
3.1.4.1.7.2 tns:GetUserOofSettingsSoapOut	54022 Added new section.	N	New content added.
3.1.4.2 SetUserOofSettings	51415 Updated the section heading to remove "Operation".	N	Content update.
3.1.4.2.1 SetUserOofSettings Simple Types	54022 Added new section.	N	New content added.
3.1.4.2.2 SetUserOofSettings Complex Types	54022 Added new section.	N	New content added.
3.1.4.2.3 SetUserOofSettings Elements	54022 Added new section.	N	New content added.
3.1.4.2.4 SetUserOofSettings Attributes	54022 Added new section.	N	New content added.
3.1.4.2.5 SetUserOofSettings Groups	54022 Added new section.	N	New content added.
3.1.4.2.6 SetUserOofSettings Attribute Groups	54022 Added new section.	N	New content added.
3.1.4.2.7 SetUserOofSettings Messages	54022 Added new section.	N	New content added.
3.1.4.2.7.1 tns:SetUserOofSettingsSoapIn	54022 Added new section.	N	New content added.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Revision Type
3.1.4.2.7.2 tns:SetUserOfSettingsSoapOut	54022 Added new section.	N	New content added.
5.2 Index of Security Parameters	54022 Added new section.	N	New content added.
6 Appendix A: Full WSDL	54022 Moved WSDL to a separate section and added xsd files.	Y	Content removed.
6.1 WSDL	54022 Added new section.	Y	New content added.
6.2 Types Schema	54022 Added new section.	Y	New content added.
6.3 Messages Schema	54022 Added new section.	Y	New content added.

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