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

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.

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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 **HTTPS** [RFC2616], as shown in Figure 1.

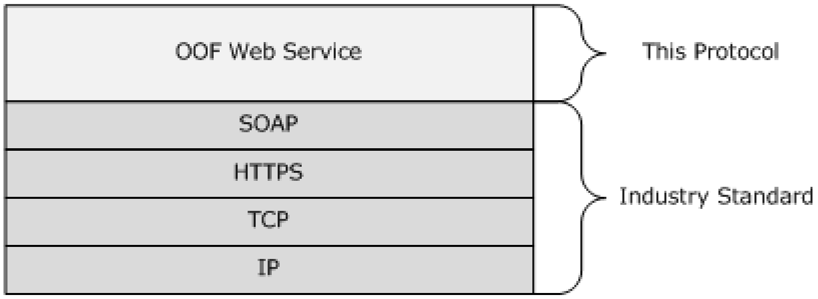

Figure 1: OOF Web service protocol stack

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.

2.2.2.3 t:ResponseClassType

The **ResponseClassType** type indicates whether the request was successfully processed by the OOF Web service.

```
<xs:simpleType name="ResponseClassType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Success" />
      <xs:enumeration value="Warning" />
      <xs:enumeration value="Error" />
    </xs:restriction>
  </xs:simpleType>
```

Value	Description
Success	Specifies that the request was successfully processed.
Warning	Specifies that an unusual situation was encountered during the processing of the request.
Error	Specifies that the request could not be processed.

2.2.2.4 t:ResponseCodeType

The **ResponseCodeType** enumeration<1> specifies the status states of a response.

```
<xs:simpleType name="ResponseCodeType">
<xs:annotation>
  <xs:documentation>
Represents the message keys that can be returned by response error messages
```

```
    </xs:documentation>
  </xs:annotation>
  <xs:restriction base="xs:string">
    <xs:enumeration value="NoError"/>
    <xs:enumeration value="ErrorAccessDenied"/>
    <xs:enumeration value="ErrorInvalidOofParameter"/>
    <xs:enumeration value="ErrorInvalidScheduledOofDuration"/>
    <xs:enumeration value="ErrorInvalidUserOofSettings"/>
    <xs:enumeration value="ErrorUnableToGetUserOofSettings"/>
  </xs:restriction>
    </xs:simpleType>
```

Value	Description
NoError = 0	No error returned in the request.
ErrorAccessDenied	The caller does not have access to make the request.
ErrorInvalidOofParameter	Occurs when one of the parameters is invalid.
ErrorInvalidScheduledOofDuration	Occurs when the scheduled duration is not valid.
ErrorInvalidUserOofSettings	Occurs when the OOF settings are not valid.
ErrorUnableToGetUserOofSettings	Occurs when the service is unable to get the OOF setttings.

2.2.3 Complex Types

2.2.3.1 m:BaseRequestType

The **BaseRequestType** type is an abstract type. The **GetUserOofSettingsRequest** and **SetUserOofSettingsRequest** types derive from this type.

```
  <xs:complexType name="BaseRequestType" abstract="true"/>
```

2.2.3.2 t:Duration

The **Duration** type specifies the time interval for which the user is OOF.

```
  <xs:complexType name="Duration">
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="StartTime" type="xs:dateTime" />
        <xs:element minOccurs="1" maxOccurs="1" name="EndTime" type="xs:dateTime" />
      </xs:sequence>
    </xs:complexType>
```

Element	Type	Definition
StartTime	**xs:dateTime**	Represents the start time of the window. MUST be present.
EndTime	**xs:dateTime**	Represents the end time of the window. MUST be present.

Restriction: **EndTime** MUST be greater than the **StartTime**. Times specified MUST be in **Coordinated Universal Time (UTC)**.

2.2.3.3 t:EmailAddress

The **EmailAddress** type specifies the name and address of the user.

```
<xs:complexType name="EmailAddress">
<xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="Name" type="xs:string" />
      <xs:element minOccurs="1" maxOccurs="1" name="Address" type="xs:string" />
      <xs:element minOccurs="0" maxOccurs="1" name="RoutingType" type="xs:string" />
    </xs:sequence>
</xs:complexType>
```

Element	Type	Definition
Name	**xs:string**	Represents the name of the attendee. Can be present.
Address	**xs:string**	Represents the e-mail address of the attendee. MUST be present and MUST be a **Simple Mail Transfer Protocol (SMTP)** address.
RoutingType	**xs:string**	Represents the routing protocol for the e-mail address. Can be present.

2.2.3.4 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.

2.2.3.5 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.

2.2.3.6 t:Mailbox

For details about the **Mailbox** type, see section 2.2.3.3.

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

2.2.3.7 t:ReplyBody

```
The ReplyBody type specifies the body of the OOF message that is sent to users.
<xs:complexType name="ReplyBody">
<xs:sequence>
<xs:element minOccurs="0" maxOccurs="1" name="Message" type="xs:string" />
</xs:sequence>
<xs:attribute ref="xml:lang" use="optional" />
</xs:complexType>
```

Element	Type	Definition
Message	**xs:string**	HTML message that forms the body of the OOF message. Can be present and SHOULD not exceed 128000 bytes.

Attribute	Definition
xml:lang	Specifies the language used in the OOF message. The possible values of this attribute are defined by [RFC3066].

2.2.3.8 m:ResponseMessageType

The ResponseMessageType type specifies whether the service returned a successful response.

```
<xs:complexType name="ResponseMessageType">
<xs:sequence minOccurs="0">
         <xs:element name="MessageText" type="xs:string" minOccurs="0"/>
<xs:element name="ResponseCode" type="m:ResponseCodeType" minOccurs="0"/>
         <xs:element name="DescriptiveLinkKey" type="xs:int" minOccurs="0"/>
         <xs:element name="MessageXml" minOccurs="0">
              <xs:complexType>
                   <xs:sequence>
                     <xs:any processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
                   </xs:sequence>
              </xs:complexType>
         </xs:element>
       </xs:sequence>
    <xs:attribute name="ResponseClass" type="t:ResponseClassType" use="required"/>
</xs:complexType>
```

Element	Type	Definition
MessageText	**xs:string**	A text description of the status of the response. Can be present. MUST be present when errors are returned.
ResponseCode	**t: ResponseCodeType**	The error code that identifies the specific error that the request encountered. Can be present.
DescriptiveLinkKey	**xs:int**	Currently unused and is reserved for future use. It MUST contain a value of 0 (zero).
MessageXml	**xs:any**	Additional error response information. Can be present.

Attribute	Type	Definition
ResponseClass	**t:ResponseClassType**	Represents the status of the response. The following values are valid for this attribute: Success Warning Error

2.2.3.9 t:ServerVersionInfo

The **ServerVersionInfo** type specifies the version of the **OOF Web service**.

```
<xs:element name="ServerVersionInfo">
<xs:complexType>
<xs:attribute name="MajorVersion" type="xs:int" use="optional"/>
      <xs:attribute name="MinorVersion" type="xs:int" use="optional"/>
      <xs:attribute name="MajorBuildNumber" type="xs:int" use="optional"/>
<xs:attribute name="MinorBuildNumber" type="xs:int" use="optional"/>
<xs:attribute name="Version" type="xs:string" use="optional"/>
</xs:complexType>
```

```
</xs:element>
```

Element	Type	Definition
MajorVersion	**xs:int**	The major version number of the server. Can be present.
MinorVersion	**xs:int**	The minor version number of the server. Can be present.
MajorBuildNumber	**xs:int**	The major build number. Can be present.
MinorBuildNumber	**xs:int**	The minor build number. Can be present.
Version	**xs:string**	Version of the server that is processing the request. Can be present.

2.2.3.10 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.

2.2.3.11 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.

2.2.3.12 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 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 Fault Detail

A **SOAP Fault** [SOAP1.1] is used to carry error information from the OOF methods when an API is misused or when there are configuration failures. This will also occur if the caller is not the mailbox owner.

SOAP Fault sub-element	Type	Definition
faultstring	**xs:string**	Contains information about the exception that was returned.
faultCode	**System.Xml..::.XmlQualifiedName**	This protocol returns **SoapException.ClientFaultCode**.
faultactor	**xs:string**	Contains the OOF Web service **URI** where this occurred.
Role		The OOF Web service returns the following: "Exception Handler".

detail	**xs:XmlNode**	A child node is created with
		Name="ErrorCode "
		Namespace= http://schemas.microsoft.com/exchange/services/2006/messages
		InnerText=stringized error
		This is used for debugging purposes only.

subCode	**xs:SoapFaultCode**	This protocol returns **SoapException.ClientFaultCode**.
innerException	**xs:System.exception**	Contains the exception that was thrown.

3 Protocol Details

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

3.1 ExchangeServicePortType Server Details

3.1.1 Abstract Data Model

The OOF service is a stateless protocol.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

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

```
<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>
```

3.1.4.1 GetUserOofSettings

The **GetUserOofSettings** operation specifies how to get the OOF settings and OOF messages from a user's mailbox.

```
<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>
```

The **GetUserOofSettings** operation requires an input **WSDL message** called **GetUserSettingsSoapIn** and returns an output WSDL message called **GetUserOofSettingsSoapOut**.

Parts for the **GetUserOofSettingsSoapIn** WSDL message:

Part	Element/Type	Description
GetUserOofSettingsRequest	**tns:GetUserOofSettingsRequest**	This part contains the information required to get OOF information.

Parts for the **GetUserOofSettingsSoapOut** WSDL message:

Part	Element/Type	Description
GetUserOofSettingsResult	**tns:GetUserOofSettingsResponse**	Response containing OOF information that was requested.
ServerVersion	**ServerVersionInfo**	Used for diagnostic purposes.

3.1.4.2 SetUserOofSettings Operation

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.

3.1.5 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>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>
      </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>
    <SetUserOofSettingsResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseMessage ResponseClass="Error">
        <MessageText>The scheduled Out of Office duration is not valid.</MessageText>
        <ResponseCode>ErrorInvalidScheduledOofDuration</ResponseCode>
        <DescriptiveLinkKey>0</DescriptiveLinkKey>
        <MessageXml>
          <ExceptionType
xmlns="http://schemas.microsoft.com/exchange/services/2006/errors">Microsoft.Exchange.InfoWor
ker.Common.OOF.InvalidScheduledOofDuration</ExceptionType>
          <ExceptionCode
xmlns="http://schemas.microsoft.com/exchange/services/2006/errors">158</ExceptionCode>
        </MessageXml>
      </ResponseMessage>
    </SetUserOofSettingsResponse>
  </soap:Body>
</soap:Envelope>
```

5 Security

5.1 Security Considerations for Implementers

The OOF service does not use additional security mechanisms.

6 Appendix A: Full WSDL

```
<?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="types"
elementFormDefault="qualified"
version="Exchange2007_SP1"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:import namespace="http://www.w3.org/XML/1998/namespace"/>

<!-- Used in the SOAP header of responses for diagnostics purposes. -->
<xs:element name="ServerVersionInfo">
<xs:complexType>
<xs:attribute name="MajorVersion" type="xs:int" use="optional"/>
<xs:attribute name="MinorVersion" type="xs:int" use="optional"/>
<xs:attribute name="MajorBuildNumber" type="xs:int" use="optional"/>
<xs:attribute name="MinorBuildNumber" type="xs:int" use="optional"/>
<xs:attribute name="Version" type="xs:string" use="optional"/>
</xs:complexType>
</xs:element>

<xs:simpleType name="ResponseClassType">
<xs:restriction base="xs:string">
<xs:enumeration value="Success" />
<xs:enumeration value="Warning" />
<xs:enumeration value="Error" />
</xs:restriction>
</xs:simpleType>

<xs:complexType name="EmailAddress">
<xs:sequence>
<xs:element minOccurs="0" maxOccurs="1" name="Name" type="xs:string" />
<xs:element minOccurs="1" maxOccurs="1" name="Address" type="xs:string" />
<xs:element minOccurs="0" maxOccurs="1" name="RoutingType" type="xs:string" />
</xs:sequence>
</xs:complexType>

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

<xs:complexType name="Duration">
<xs:sequence>
<xs:element minOccurs="1" maxOccurs="1" name="StartTime" type="xs:dateTime" />
<xs:element minOccurs="1" maxOccurs="1" name="EndTime" type="xs:dateTime" />
</xs:sequence>
</xs:complexType>

<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="ReplyBody">
<xs:sequence>
<xs:element minOccurs="0" maxOccurs="1" name="Message" type="xs:string" />
</xs:sequence>
<xs:attribute ref="xml:lang" use="optional" />
</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" type="t:ExternalAudience" />
<xs:element minOccurs="0" maxOccurs="1" name="Duration" type="t:Duration" />
<xs:element minOccurs="0" maxOccurs="1" name="InternalReply" type="t:ReplyBody" />
<xs:element minOccurs="0" maxOccurs="1" name="ExternalReply" type="t:ReplyBody" />
</xs:sequence>
</xs:complexType>

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

<xs:schema id="messages"
elementFormDefault="qualified"
version="Exchange2007_SP1"
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">
<!-- Import common types. -->
<xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="types.xsd"/>
<!-- Basic response type -->
<!-- Common to all responses -->
<xs:simpleType name="ResponseCodeType">
<xs:annotation>
<xs:documentation>
Represents the message keys that can be returned by response error messages
</xs:documentation>
</xs:annotation>
<xs:restriction base="xs:string">
<xs:enumeration value="NoError"/>
<xs:enumeration value="ErrorAccessDenied"/>
<xs:enumeration value="ErrorInvalidOofParameter"/>
  <xs:enumeration value="ErrorInvalidScheduledOofDuration"/>
```

```
    <xs:enumeration value="ErrorInvalidUserOofSettings"/>
    <xs:enumeration value="ErrorUnableToGetUserOofSettings"/>
  </xs:restriction>
  </xs:simpleType>

  <xs:complexType name="ResponseMessageType">
  <xs:sequence minOccurs="0">
  <xs:element name="MessageText" type="xs:string" minOccurs="0"/>
  <xs:element name="ResponseCode" type="m:ResponseCodeType" minOccurs="0"/>
  <xs:element name="DescriptiveLinkKey" type="xs:int" minOccurs="0"/>
  <xs:element name="MessageXml" minOccurs="0">
  <xs:complexType>
  <xs:sequence>
  <xs:any processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  </xs:complexType>
  </xs:element>
  </xs:sequence>
  <xs:attribute name="ResponseClass" type="t:ResponseClassType" use="required"/>
  </xs:complexType>

  <!-- GetUserOofSettingsRequest -->
  <xs:complexType name="BaseRequestType" abstract="true"/>
  <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" />

  <!-- GetUserOofSettingsResponse -->

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

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

  <!-- SetUserOofSettingsRequest -->

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

```
</xs:complexType>

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

<!-- SetUserOofSettingsResponse -->

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

<xs:element name="SetUserOofSettingsResponse" type="tns:SetUserOofSettingsResponse" />
</xs:schema>
</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">
    <!-- GetUserOofSettings -->
    <wsdl:operation name="GetUserOofSettings">
      <wsdl:input message="tns:GetUserOofSettingsSoapIn" />
      <wsdl:output message="tns:GetUserOofSettingsSoapOut" />
    </wsdl:operation>

    <!-- SetUserOofSettings -->
    <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" />

    <!-- GetUserOofSettings -->
    <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>

    <!-- SetUserOofSettings -->
    <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>
```

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.

<1> Section 2.2.2.4: The enumeration value ErrorUnableToGetUserOofSettings that is defined in the ResponseCodeType element is never returned by the Exchange server.

8 Change Tracking

This section identifies changes made to [MS-OXWOOF] protocol documentation between July 2009 and November 2009 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
1.1 Glossary	53085 Updated term.	N	Content update.
1.1 Glossary	53563 Moved term to main list.	N	Content update.

9 Index