[MS-OXWUMS]:
Voice Mail Settings 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 edited technical content.
09/03/2008	1.0.2	Editorial	Updated references.
12/03/2008	1.0.3	Editorial	Revised and edited technical content.
03/04/2009	1.0.4	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.
05/05/2010	4.0.1	Editorial	Revised and edited the technical content.
08/04/2010	4.0.1	No change	No changes to the meaning, language, or formatting of the technical content.
11/03/2010	4.1	Minor	Clarified the meaning of the technical content.

Contents

1   Introduction

This document specifies the Voice Mail Settings Web Service protocol, which provides an extensibility point that enables clients to read and change information about Unified Messaging properties, and play voice mails or record greetings over the telephone.

1.1   Glossary

The following terms are defined in [MS-OXGLOS]:

endpoint (3)
handle
Entry ID
Hypertext Transport Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)
mailbox
Out of Office (OOF)
SOAP body
SOAP fault
SOAP header
SOAP message
Unified Messaging
Uniform Resource Locator (URL)
Web Services Description Language (WSDL)
WSDL message
WSDL port type
XML
XML namespace
XML schema

The following terms are specific to this document:

state machine: An abstraction that defines a finite set of states, state transitions, and the actions that cause a system to transition between states.

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-OXDSCLI] Microsoft Corporation, "Autodiscover Publishing and Lookup Protocol Specification", April 2008.

[MS-OXWCONFIG] Microsoft Corporation, "Web Service Configuration Protocol Specification", April 2009.

[MS-OXWSADISC] Microsoft Corporation, "Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol Specification", July 2009.

[MS-OXWSCDATA] Microsoft Corporation, "Common Web Service Data Types", July 2009.

[MS-OXWSCORE] Microsoft Corporation, "Core Items Web Service Protocol Specification", July 2009.

[MS-OXWSCVTID] Microsoft Corporation, "Convert Item Identifier Web Service Protocol Specification", July 2009.

[MS-OXWSSRCH] Microsoft Corporation, "Mailbox Search Web Service Protocol Specification", July 2009.

[RFC2045] Freed, N., and Borenstein, N., "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies", RFC 2045, November 1996, http://www.ietf.org/rfc/rfc2045.txt

[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

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

[RFC3066] Alvestrand, H., "Tags for the Identification of Languages", BCP 47, RFC 3066, January 2001, http://www.ietf.org/rfc/rfc3066.txt

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", W3C Note, May 2000, http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

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

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

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

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

1.2.2 Informative References

[MS-OXGLOS] Microsoft Corporation, "Exchange Server Protocols Master Glossary", April 2008.

1.3 Overview

The Voice Mail Settings Web Service protocol provides an extensibility point that enables clients to read and change information that is stored in **Unified Messaging** properties or play voice mail and **mailbox** items over the telephone.

Servers that implement this protocol initiate telephone calls and interact with other systems that connect the calls to devices. This protocol is also an entry point to voice access subsystems. Clients use this protocol to update Unified Messaging properties and initiate communication between the protocol server system and other devices such as telephone receivers.

The server side of this protocol requires state information to be maintained for call status updates that can be retrieved by the client that initiates a telephone call. The client side of this protocol does not require that state information be maintained.

1.4 Relationship to Other Protocols

This protocol relies on the Mailbox Search Web Service protocol [MS-OXWSSRCH] to provide identifiers for items and voice mails to play on a telephone. This protocol also uses the Convert Item Identifier Web Service protocol [MS-OXWSCVTID] to convert item and voice mail identifiers in some scenarios, depending on how the item identifiers are retrieved and which operations are targeted.

A client that implements this protocol can use the Autodiscover Publishing and Lookup SOAP-Based Web Service protocol [MS-OXWSADISC] or the Autodiscover Publishing and Lookup protocol [MS-OXDSCLI] to identify the target **endpoint** to use for each operation.

The Web Service Configuration protocol [MS-OXWCONFIG] can provide configuration information for clients that use the endpoint provided by the Autodiscover Publishing and Lookup SOAP-Based Web Service protocol.

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

The Voice Mail Settings Web Service protocol uses SOAP over **HTTPS** [RFC2818], as shown in the following figure.
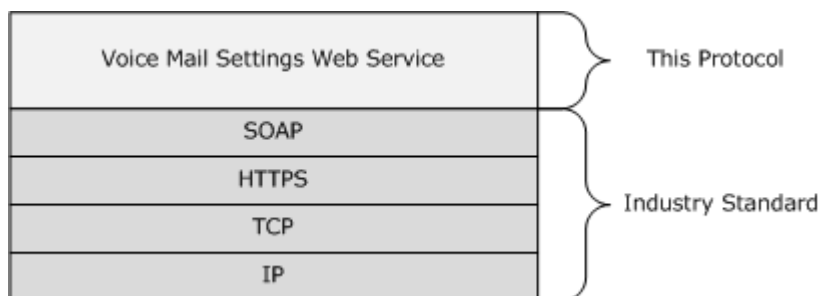
Figure 1: Voice Mail Settings Web Service protocol HTTPS stack

1.5 Prerequisites/Preconditions

The endpoint **URL** that is returned by either the Autodiscover Publishing and Lookup SOAP-Based Web Service protocol [MS-OXWSADISC] or the Autodiscover Publishing and Lookup protocol [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 Voice Mail Settings Web Service protocol operations.

The Unified Messaging service has to be enabled in order for many of the operations that are associated with this protocol to function. Additionally, for operations that initiate playing items on the phone, such as the **PlayOnPhone** and the **PlayOnPhone2** operations, the item identifiers of the items or voice mails have to be obtained before these operations can be used.

1.6   Applicability Statement

This protocol is applicable for systems that initiate playing items and voice mails on devices.

1.7   Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses SOAP 1.1.

- **Protocol Versions:** This protocol has only one **WSDL port type** version.

- **Security and Authentication Methods:** This protocol relies on the Web server that hosts the application to perform authentication. The server will not allow unauthenticated clients to access the Voice Mail Settings Web Service protocol operations.

- **Capability Negotiation:** This protocol does not perform explicit capability negotiation. This protocol relies on the Autodiscover Publishing and Lookup protocol [MS-OXDSCLI] to identify protocol versions and service endpoint that are applicable to a client.

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 SHOULD use secure communication via HTTPS, as defined 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**, as defined in [WSDL].

2.2.1 Namespaces

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

Prefix	Namespace URI	Reference
tns	http://schemas.microsoft.com/exchange/services/2006/messages	
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA2]
soap	http://schemas.xmlsoap.org/WSDL/soap/	[WSDL]
WSDL	http://schemas.xmlsoap.org/WSDL/	[WSDL]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA2]
t	http://schemas.microsoft.com/exchange/services/2006/types	
m	http://schemas.microsoft.com/exchange/services/2006/messages	

2.2.2 Messages

This specification defines a single common **SOAP fault** definition.

Message	Description
Malformed XML SOAP Fault	Specifies the SOAP fault that is returned if the request **XML** is malformed according the schema specified in section 6.

2.2.2.1 Malformed XML SOAP Fault

The **Disconnect**, **GetCallInfo**, **GetUMProperties**, **IsUMEnabled**, **PlayOnPhone**, **PlayOnPhoneGreeting**, **ResetPIN**, **SetMissedCallNotificationEnabled**, **SetOofStatus**, **SetPlayOnPhoneDialString**, and **SetTelephoneAccessFolderEmail** operations, as specified in section 3.1.4, MUST use the SOAP fault specified in this section if the request XML is malformed according the schema specified in section 6. The following XML specifies the structure of the SOAP

fault that is returned when a request contains malformed XML. This message is not specified in the schema.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <s:Fault>
      <faultcode
xmlns:a="http://schemas.microsoft.com/exchange/services/2006/types">a:ErrorInvalidRequest</fa
ultcode>
      <faultstring xml:lang="en-US">The request is invalid.</faultstring>
      <detail>
        <e:ResponseCode
xmlns:e="http://schemas.microsoft.com/exchange/services/2006/errors">ErrorInvalidRequest</e:R
esponseCode>
        <e:Message xmlns:e="http://schemas.microsoft.com/exchange/services/2006/errors">The
request is invalid.</e:Message>
      </detail>
    </s:Fault>
  </s:Body>
</s:Envelope>
```

The <faultcode> element MUST contain a text value of **a:ErrorInvalidRequest** if the request is malformed.

The <faultstring> element MUST contain a text value of **The request is invalid** if the request is malformed.

The contents of the SOAP fault <detail> element are specified by the <ResponseCode> element, specified in section 2.2.3.3, and the <Message> element, specified in section 2.2.3.2. The <Message> element MUST contain a text value of **The request is invalid** if the request contained malformed XML. The <ResponseCode> element MUST have a text value of **ErrorInvalidRequest** if the request contained malformed XML.

The <ResponseCode> and <Message> elements are not described in a schema.

2.2.3   Elements

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

Element	Description
ExceptionType	Specifies the type of exception that caused a SOAP fault.
Message	Specifies an error string that is associated with the <ResponseCode> element.
ResponseCode	Specifies a response code that is associated with a SOAP fault.

2.2.3.1   ExceptionType Element

The <ExceptionType> element specifies the type of exception that caused a SOAP fault.

```
<xs:element name="ExceptionType"
  type="xs:string"
```

```
/>
```

The **xs:string** type is specified in [XMLSCHEMA1].

This element MUST be returned when any of the following conditions occur:

- A **Disconnect** operation request contains an invalid telephone phone call identifier. The <ExceptionType> element MUST contain a text value of **a:InvalidCallIdException**.

- A **GetCallInfo** operation request contains an invalid telephone phone call identifier. The <ExceptionType> element MUST contain a text value of **a:InvalidCallIdException**.

- A **PlayOnPhone** operation request contains an invalid item identifier. The <ExceptionType> element MUST contain a text value of **a:InvalidObjectIdException**.

- A **PlayOnPhone** or **PlayOnPhoneGreeting** operation request contains an invalid dial string. The <ExceptionType> element MUST contain a text value of **a:DialingRulesException**.

The <ExceptionType> element is not described in a schema, as it is an extension of SOAP fault structure, as specified in [SOAP1.1].

2.2.3.2   Message Element

The <Message> element specifies an error string that is associated with the <ResponseCode> element (section 2.2.3.3).

```
<xs:element name="Message"
  type="xs:string"
 />
```

The <Message> element is not described in a schema, as it is an extension of the SOAP fault structure, as specified in [SOAP1.1].

This element MUST be returned when the following condition applies:

- A request that is sent to the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32 is malformed. In this case, the text value of this element MUST be **The request is invalid.**

2.2.3.3   ResponseCode Element

The <ResponseCode> element specifies a response code that is associated with a SOAP fault.

```
<xs:element name="ResponseCode"
  type="xs:string"
 />
```

The <ResponseCode> element is not described in a schema because it is an extension of SOAP fault structure, as specified in [SOAP1.1].

This element MUST be returned when the following condition applies:

▪ A request that is sent to the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32 is malformed. In this case, the text value of this element MUST be **ErrorInvalidRequest**.

2.2.4 Complex Types

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

Complex type	Description
PhoneCallIdType	Specifies the telephone call identifier.

2.2.4.1 PhoneCallIdType Complex Type

The **PhoneCallIdType** complex type specifies a phone call identifier.

```
<xs:complexType name="PhoneCallIdType">
  <xs:attribute name="Id"
    type="xs:string"
    use="required"
    />
</xs:complexType>
```

Attributes

Name	Type	Description
Id	xs:string	Specifies a phone call identifier. This attribute MUST be present. The **xs:string** type is specified in [XMLSCHEMA2].

The **PhoneCallIdType** complex type is common to the **DisconnectPhoneCall** operation (section 3.1.4.1), the **GetPhoneCallInformation** operation (section 3.1.4.4), and the **PlayOnPhone2** operation (section 3.1.4.7).

2.2.5 Simple Types

This specification does not define any common XML schema simple types.

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

3.1 UMWebServiceSoap Server Details

This protocol defines a single WSDL port type that contains a set of operations that enable clients to read and change Unified Messaging properties and to initiate communications between the protocol system server and other devices.

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 described in this document.

3.1.1.1 Phone Call Status State Model

The phone call status server state subsystem specifies the phone call status and the transitions between the different phone call states that can either be read or changed by the Voice Mail Settings Web Service protocol operations. The state transitions represent Voice Mail Settings Web Service protocol operation actions or actions taken by subsystems that affect the phone call status state machine.

The following Voice Mail Settings Web Service protocol operations can cause phone call state changes:

- **PlayOnPhone**

- **PlayOnPhone2**

- **PlayOnPhoneGreeting**

- **Disconnect**

- **DisconnectPhoneCall**

The following Voice Mail Settings Web Service protocol operations can read phone call state:

- **GetCallInformation**

- **GetCallInfo**

The following figure shows the Phone Call Status state abstract data model for a phone call initiated by the Voice Mail Settings Web Service protocol.
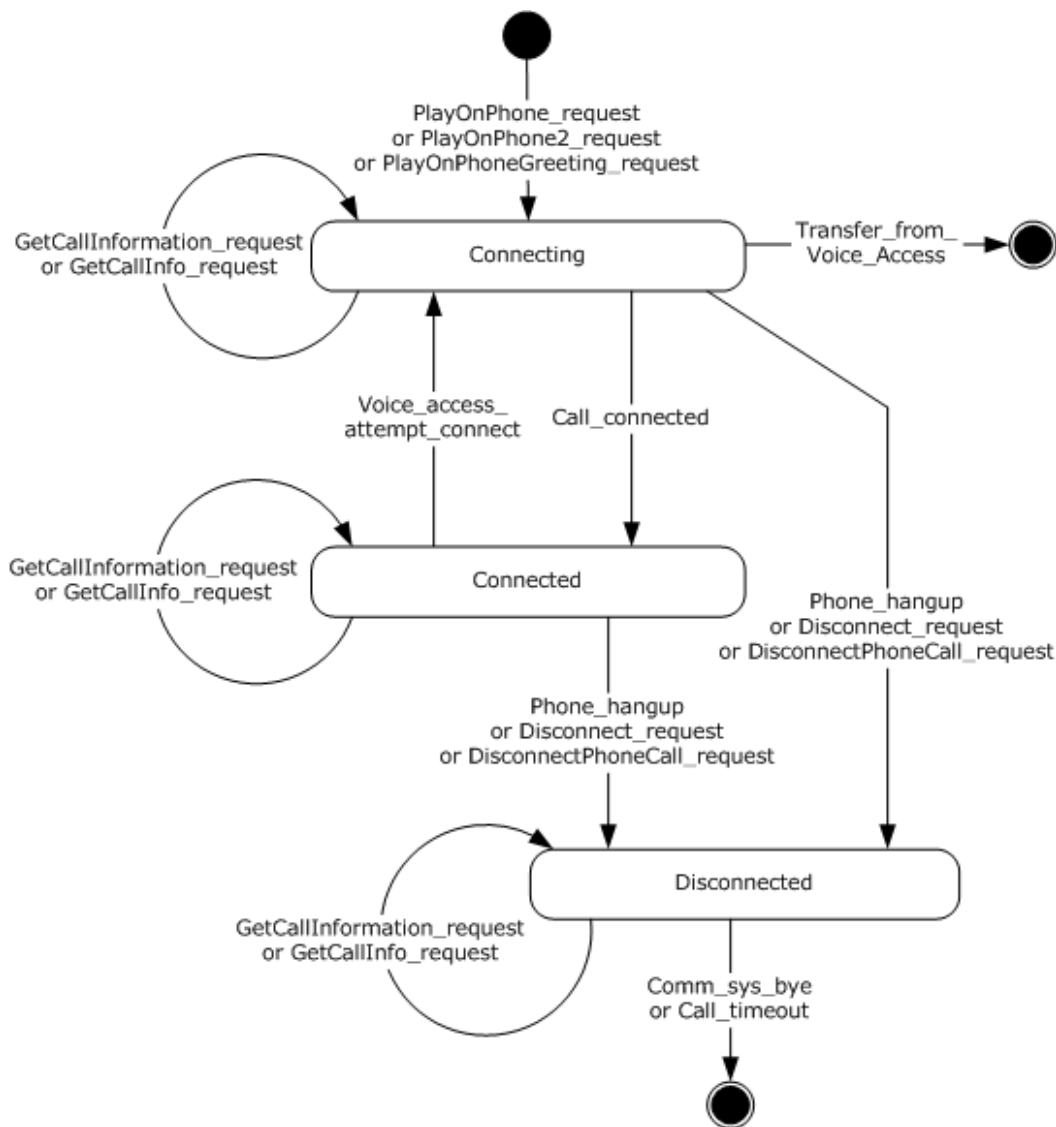
Figure 2: Phone Call Status abstract data model

The Phone Call Status subsystem abstract data model has the following states:

- **Start**: The state of the phone call status subsystem before a phone call is initiated by either the **PlayOnPhone**, **PlayOnPhone2**, or **PlayOnPhoneGreeting** operations. This is equivalent to the Idle state, as specified in sections 3.1.4.3.4.1 and 3.1.4.4.4.2.

- **Connecting**: The phone call status state represents a successful attempt to initiate a phone call. The **Connecting** state can be initiated by the **PlayOnPhone**, **PlayOnPhone2**, or the **PlayOnPhoneGreeting** operations. The **Connecting** state can also be achieved by a phone call that has successfully completed reading a message and has then been used to attempt to access a contact via the phone call through a voice access subsystem.

- **Connected**: The state of the phone call status subsystem after a call to play an item or greeting on the phone has been connected.

- **Disconnected**: The state of the phone call status subsystem after a phone playing an item or greeting has been physically disconnected, the **Disconnect** operation has been called for the phone call, or the **DisconnectPhoneCall** operation has been called for the phone call.

- **Stop**: The state of the phone call status subsystem after a phone call has ended. This is equivalent to the **Idle** state specified by the **UMCallState** simple type, as specified in section 3.1.4.3.4.1, and the **PhoneCallStateType** simple type, as specified in section 3.1.4.4.4.2. The **Idle** state cannot be read from the Voice Mail Settings Web Service protocol as no phone call identifiers are associated with the **Idle** state. The **Idle** state can be achieved by transferring a call through the voice access subsystem to a contact, by the communication system ending the phone call, or by timing out a Disconnected phone call.

The Phone Call Status subsystem abstract data model has the following transitions:

- **PlayOnPhone_request:** Represents a successful **PlayOnPhone** operation request message to play an item on a phone.

- **PlayOnPhone2_request:** Represents a successful **PlayOnPhone2** operation request message to play an item on a phone.

- **PlayOnPhoneGreeting_request:** Represents a successful **PlayOnPhoneGreeting** operation request message to play a greeting on a phone.

- **GetCallInformation_request:** Represents a successful **GetCallInformation** operation request message to get the status of a phone call.

- **GetCallInfo_request:** Represents a successful **GetCallInfo** operation request message to get the status of a phone call.

- **Call_connected:** Represents the transition from a **Connecting** state initiated by a **PlayOnPhone**, **PlayOnPhone2**, or a **PlayOnPhoneGreeting** operation to the **Connected** state by the recipient answering the call.

- **Voice_access_attempt_connect:** Represents the phone call transition after an item has been played on phone and then an attempt at using the voice access subsystem to connect the phone call to a contact.

- **Transfer_from_Voice_Access:** Represents a phone call to a contact that has been successfully connected by the voice access subsystem. The phone call status subsystem is no longer accessible for the phone call after the **Transfer_from_Voice_Access** transition.

- **Phone_hangup:** Represents a transition to the **Disconnected** state caused by a physical disconnection of a phone call.

- **Disconnect_request:** Represents a transition to the **Disconnected** state caused by a successful **Disconnect** operation request.

- **DisconnectPhoneCall_request:** Represents a transition to the **Disconnected** state caused by a successful **DisconnectPhoneCall** operation request.

- **Comm_sys_bye:** Represents a transition to the **Idle** state caused by the communication system ending a phone call.

- **Call_timeout:** Represents a transition to the **Idle** state caused by the **Call_Timeout** timer, as specified in section 3.1.2.

3.1.2 Timers

Call_timeout: A per-phone call timer that starts when a phone call enters the **Disconnected** state, as specified in section 3.1.1.1. The timer ends after 32 seconds. The phone call status state machine goes into the **Idle** state after the timer has timed out.

3.1.3 Initialization

The **Connecting** state, as specified in section 3.1.1.1, is the initial server protocol state. The **Connecting** state is initialized after the server has received a successful request for the **PlayOnPhone** operation (section 3.1.4.8), **PlayOnPhone2** operation (section 3.1.4.7), or **PlayOnPhoneGreeting** operation (section 3.1.4.9) from the client. Additional information about arguments that are required to enter the initial state are specified in section 3.2.3.

The server state has a **Call_timeout** timer that is initialized when the server enters the **Disconnected** state.

3.1.4 Message Processing Events and Sequencing Rules

This protocol uses the operations that are listed in the following table. Sequencing rules are specified in section 3.2.4.

Operation	Description
Disconnect	Disconnects a call.
DisconnectPhoneCall	Disconnects a call.
GetCallInfo	Returns information about a call.
GetPhoneCallInformation	Returns information about a call.
GetUMProperties	Returns a list of Unified Messaging properties.
IsUMEnabled	Returns a value that indicates whether the user who is making the request is enabled for Unified Messaging.
PlayOnPhone2	Requests that an outbound call is performed and plays a voice message or mailbox item over the telephone.
PlayOnPhone	Requests that an outbound call is performed and plays a voice message or mailbox item over the telephone.
PlayOnPhoneGreeting	Makes an outbound call to play and record a greeting over the telephone.
ResetPIN	Creates a new password for the user who is making the request.
SetMissedCallNotificationEnabled	Sets a value that indicates whether missed call notifications are enabled for the user who is making the request.
SetOofStatus	Sets a value that indicates whether the **Out of Office (OOF)** greeting is enabled for the user who is making the request.
SetPlayOnPhoneDialString	Sets the default telephone number that is used in **PlayOnPhone** and **PlayOnPhoneGreeting** operation requests.
SetTelephoneAccessFolderEmail	Sets the mailbox folder from which the Unified Messaging server

Operation	Description
	will read back to the user over the telephone.

3.1.4.1   Disconnect Operation

The **Disconnect** operation disconnects a call. The **Disconnect** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="Disconnect">
    <wsdl:input message="tns:DisconnectSoapIn" />
    <wsdl:output message="tns:DisconnectSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:DisconnectSoapIn	Specifies the **SOAP message** that disconnects a phone call.

Response

Message Format	Description
tns:DisconnectSoapOut	Specifies the SOAP message that describes the disposition of an attempt to disconnect a phone call.

If the operation succeeds, a <DisconnectResponse> element is returned. If the operation fails, a SOAP fault response [SOAP1.1] is returned that contains information about the failure. A SOAP fault MUST be returned if the **Disconnect** operation specifies an incorrect phone call identifier in the <CallId> element, as specified in section 3.1.4.1.2.1, or if this element is not specified. The following XML specifies the SOAP fault response that MUST be returned if an invalid phone call identifier is provided as an argument to a **Disconnect** operation request.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <s:Fault>
      <faultcode
xmlns:a="http://schemas.microsoft.com/exchange/services/2006/errors">a:InvalidCallIdException
</faultcode>
      <faultstring xml:lang="en-US">The call identifier isn't valid.</faultstring>
      <detail>
        <m:ExceptionType
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">InvalidCallIdException
</m:ExceptionType>
      </detail>
    </s:Fault>
  </s:Body>
</s:Envelope>
```

The <faultcode> element MUST contain a text value of **a:InvalidCallIdException** if an invalid phone call identifier is sent in the request.

The <faultstring> element MUST contain a text value of **The call identifier isn't valid.** if an invalid phone call identifier is sent in the request.

The contents of the SOAP fault <detail> element are specified by the <ExceptionType> element (section 2.2.3.1).

3.1.4.1.1 Messages

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

Message	Description
DisconnectSoapIn	Specifies the request that disconnects a phone call.
DisconnectSoapOut	Specifies a successful response to a request that disconnects a phone call.

3.1.4.1.1.1 DisconnectSoapIn Message

The **DisconnectSoapIn** WSDL message specifies the **Disconnect** operation request.

The SOAP action value is:

http://schemas.microsoft.com/exchange/services/2006/messages/Disconnect

The SOAP body contains a <Disconnect> element.

The **DisconnectSoapIn** message contains one part.

```
<wsdl:message name="DisconnectSoapIn">
  <wsdl:part name="parameters" element="tns:Disconnect" />
</wsdl:message>
```

Part name	Element/type	Description
parameters	<Disconnect>	Specifies the information that is required to disconnect a telephone call. The <Disconnect> element is specified in section 3.1.4.1.2.1.

3.1.4.1.1.2 DisconnectSoapOut Message

The **DisconnectSoapOut** WSDL message specifies the **Disconnect** operation response.

The SOAP body contains a <DisconnectResponse> element.

The **DisconnectSoapOut** message contains one part.

```
<wsdl:message name="DisconnectSoapOut">
  <wsdl:part name="parameters" element="tns:DisconnectResponse" />
</wsdl:message>
```

Part name	Element/type	Description
parameters	<DisconnectResponse>	Specifies a successful response to a **Disconnect** operation request. The <DisconnectResponse> element is specified in section 3.1.4.1.2.2.

3.1.4.1.2 Elements

The following table lists the XML schema elements that are specific to this operation.

Element	Description
\<Disconnect\>	Specifies a request to disconnect a phone call.
\<DisconnectResponse\>	Specifies the response body content for a **DisconnectSoapOut** response message.

3.1.4.1.2.1 Disconnect Element

The \<Disconnect\> element specifies a request to disconnect a phone call. This element MUST be present in a **Disconnect** operation request.

```
<xs:element name="Disconnect">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="CallId"
        type="xs:string"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
CallId	xs:string	Specifies the phone call identifier of the call to disconnect. This identifier is returned by the **PlayOnPhone** operation, as specified in section 3.1.4.8. This element MUST be present. The **xs:string** type is specified in [XMLSCHEMA2].
		If this element is not specified or if it contains an incorrect phone call identifier, the implementation MUST return a SOAP fault response.

3.1.4.1.2.2 DisconnectResponse Element

The \<DisconnectResponse\> element specifies the response body content for a **DisconnectSoapOut** response. This element MUST be present.

```
<xs:element name="DisconnectResponse">
  <xs:complexType />
</xs:element>
```

3.1.4.2 DisconnectPhoneCall Operation

The **DisconnectPhoneCall** operation disconnects a call. The **DisconnectPhoneCall** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.15.\<1\>

```
<wsdl:operation name="DisconnectPhoneCall">
    <wsdl:input message="tns:DisconnectPhoneCallSoapIn" />
    <wsdl:output message="tns:DisconnectPhoneCallSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:DisconnectPhoneCallSoapIn	Specifies the SOAP message that initiates an attempt to disconnect a phone call.

Response

Message Format	Description
tns:DisconnectPhoneCallSoapOut	Specifies the SOAP message that describes the disposition of an attempt to disconnect a phone call.

3.1.4.2.1 Messages

The following WSDL message definitions are specific to this operation.

Message	Description
DisconnectPhoneCallSoapIn	Specifies the request that disconnects a phone call.
DisconnectPhoneCallSoapOut	Specifies the response to a request that disconnects a phone call.

3.1.4.2.1.1 DisconnectPhoneCallSoapIn Message

The **DisconnectPhoneCallSoapIn** WSDL message specifies the **DisconnectPhoneCall** operation request.

```
<wsdl:message name="DisconnectPhoneCallSoapIn">
  <wsdl:part name="request" element="tns:DisconnectPhoneCall"/>
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
  <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The parts of the **DisconnectPhoneCallSoapIn** message are described in the following table.

Part name	Element/type	Description
request	<DisconnectPhoneCall>	Specifies the **SOAP body** of the request.
Impersonation	<ExchangeImpersonation>	Specifies impersonation information. The <ExchangeImpersonation> element is specified in [MS-OXWSCDATA] section 2.2.4.2.
MailboxCulture	<MailboxCulture>	Specifies the language to use to access the mailbox. The languages are defined by [RFC3066].

Part name	Element/type	Description
RequestVersion	<RequestServerVersion>	Specifies the target schema version for the **DisconnectPhoneCall** operation request. The <RequestServerVersion> element is specified in [MS-OXWSCDATA] section 2.2.4.2.

3.1.4.2.1.2 DisconnectPhoneCallSoapOut Message

The **DisconnectPhoneCallSoapOut** WSDL message specifies the **DisconnectPhoneCall** operation response.

The parts of the **DisconnectPhoneCallSoapOut** message are described in the following table.

```
<wsdl:message name="DisconnectPhoneCallSoapOut">
    <wsdl:part name="DisconnectPhoneCallResult" element="tns:DisconnectPhoneCallResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

Part name	Element/type	Description
DisconnectPhoneCallResult	<DisconnectPhoneCallResponse>	Specifies the response.
ServerVersion	<ServerVersionInfo>	Specifies the server version for the response. The <ServerVersionInfo> element is specified in [MS-OXWSCDATA] section 2.2.4.8.

A successful **DisconnectPhoneCall** operation response includes a text value of **Success** in the **ResponseClass** attribute of the <DisconnectPhoneCallResponse> XML instance element (section 3.1.4.2.2.2). The <ResponseCode> child element of the <DisconnectPhoneCallResponse> XML instance element has a text value of **NoError**.

An **DisconnectPhoneCall** operation error response caused by an invalid phone call identifier has a text value of **Error** in the **ResponseClass** attribute of the <DisconnectPhoneCallResponse> XML instance element (section 3.1.4.2.2.2). The <ResponseCode> child element of the <DisconnectPhoneCallResponse> XML instance element has a text value of **ErrorInvalidPhoneCallId**. The <MessageText> child element of the <DisconnectPhoneCallResponse> XML instance element has a text value of **The phone call ID isn't valid.**

3.1.4.2.2 Elements

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

Element	Description
<DisconnectPhoneCall>	Specifies a request to disconnect a call.
<DisconnectPhoneCallResponse>	Specifies a response to a request to disconnect a call.

3.1.4.2.2.1 DisconnectPhoneCall Element

The <DisconnectPhoneCall> element specifies a request to disconnect a call. This element MUST be present.

```
<xs:element name="DisconnectPhoneCall"
  type="m:DisconnectPhoneCallType"
 />
```

3.1.4.2.2.2 DisconnectPhoneCallResponse Element

The <DisconnectPhoneCallResponse> element specifies a response to disconnect a call. This element MUST be present.

```
<xs:element name="DisconnectPhoneCallResponse"
  type="m:DisconnectPhoneCallResponseMessageType"
 />
```

3.1.4.2.3 Complex Types

The following table lists the XML schema complex type definitions that are specific to this operation.

Complex type	Description
DisconnectPhoneCallResponseMessageType	Specifies a response to a **DisconnectPhoneCall** operation request.
DisconnectPhoneCallType	Specifies a **DisconnectPhoneCall** operation request.

3.1.4.2.3.1 DisconnectPhoneCallResponseMessageType Complex Type

The **DisconnectPhoneCallResponseMessageType** complex type specifies a response to **DisconnectPhoneCall** operation request. The **DisconnectPhoneCallResponseMessageType** complex type extends the **ResponseMessageType** type, as specified in [MS-OXWSCDATA] section 2.2.3.52. For more details, see section 3.1.4.2.

```
<xs:complexType name="DisconnectPhoneCallResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ResponseMessageType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.2.3.2 DisconnectPhoneCallType Complex Type

The **DisconnectPhoneCallType** complex type specifies a **DisconnectPhoneCall** operation request. The **DisconnectPhoneCallType** complex type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.3.14.

```
<xs:complexType name="DisconnectPhoneCallType">
  <xs:complexContent>
    <xs:extension
      base="BaseRequestType"
```

```
      >
        <xs:sequence>
          <xs:element name="PhoneCallId"
            type="t:PhoneCallIdType"
            />
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
```

Child Elements

Element	Type	Description
PhoneCallId	**t:PhoneCallIdType**	Specifies the identifier of the phone call to disconnect. This element MUST occur only once. The **PhoneCallIdType** complex type is specified in section 2.2.4.1.

3.1.4.3   GetCallInfo Operation

The **GetCallInfo** operation returns information about a call. The **GetCallInfo** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="GetCallInfo">
  <wsdl:input message="tns:GetCallInfoSoapIn" />
  <wsdl:output message="tns:GetCallInfoSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:GetCallInfoSoapIn	Specifies the SOAP message that gets information about a phone call.

Response

Message Format	Description
tns:GetCallInfoSoapOut	Specifies the SOAP message that contains the results of an attempt to get information about a phone call.

If the operation succeeds, a <GetCallInfoResponse> element is returned. If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure. A SOAP fault is returned if the **GetCallInfo** operation specifies an incorrect phone call identifier in the <CallId> element, as specified in section 3.1.4.3.2.1. The following XML specifies the SOAP fault response that is returned if an invalid phone call identifier is provided as an argument to a **GetCallInfo** operation request.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <s:Fault>
```

```
            <faultcode
  xmlns:a="http://schemas.microsoft.com/exchange/services/2006/errors">a:InvalidCallIdException
  </faultcode>
            <faultstring xml:lang="en-US">The call identifier isn't valid.</faultstring>
            <detail>
              <m:ExceptionType
  xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">InvalidCallIdException
  </m:ExceptionType>
            </detail>
          </s:Fault>
        </s:Body>
  </s:Envelope>
```

The <faultcode> element MUST have a text value of **a:InvalidCallIdException** if an invalid phone call identifier is sent in the request.

The <faultstring> element MUST have a text value of **The call identifier isn't valid.** if an invalid phone call identifier is sent in the request.

The contents of the SOAP fault <detail> element are specified by the <ExceptionType> element (section 2.2.3.1).

3.1.4.3.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
GetCallInfoSoapIn	Specifies the request to get information about a phone call.
GetCallInfoSoapOut	Specifies the response to a request to get information about a phone call.

3.1.4.3.1.1 GetCallInfoSoapIn Message

The **GetCallInfoSoapIn** WSDL message specifies the **GetCallInfo** operation request.

The SOAP action value is:

http://schemas.microsoft.com/exchange/services/2006/messages/GetCallInfo

The SOAP body contains a <GetCallInfo> element.

```
  <wsdl:message name="GetCallInfoSoapIn">
    <wsdl:part name="parameters" element="tns:GetCallInfo" />
  </wsdl:message>
```

The parts of the **GetCallInfoSoapIn** message are described in the following table.

Part name	Element/type	Description
parameters	<GetCallInfo>	Specifies the data that is required to get information about a telephone call. The <GetCallInfo> element is specified in section 3.1.4.3.2.1.

3.1.4.3.1.2 GetCallInfoSoapOut Message

The **GetCallInfoSoapOut** WSDL message specifies the **GetCallInfo** operation response.

The SOAP body contains a <GetCallInfoResponse> element.

```
<wsdl:message name="GetCallInfoSoapOut">
  <wsdl:part name="parameters" element="tns:GetCallInfoResponse" />
</wsdl:message>
```

The parts of the **GetCallInfoSoapOut** message are described in the following table.

Part mame	Element/type	Description
parameters	<GetCallInfoResponse>	Specifies a response to a **GetCallInfo** operation request. The <GetCallInfoResponse> element is specified in section 3.1.4.3.2.2.

3.1.4.3.2 Elements

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

Element	Description
<GetCallInfo>	Specifies a request to get information about a phone call.
<GetCallInfoResponse>	Specifies a response to a **GetCallInfo** operation request.

3.1.4.3.2.1 GetCallInfo Element

Specifies a request to get information about a phone call. This element MUST be present.

```
<xs:element name="GetCallInfo">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="GetCallInfo"
        type="xs:string"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
GetCallInfo	xs:string	Specifies the identifier of the call for which to request information. This identifier is returned as part of the **PlayOnPhone** operation (section 3.1.4.8) or the **PlayOnPhoneGreeting** operations (section 3.1.4.9). This element MUST be

Element	Type	Description
		present. The **xs:string** type is specified in [XMLSCHEMA2].

3.1.4.3.2.2 GetCallInfoResponse Element

Specifies a response to a **GetCallInfo** request. This element MUST be present.

```
<xs:element name="GetCallInfoResponse"
  maxOccurs="1"
  minOccurs="1"
>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="GetCallInfoResponse"
        type="tns:UMCallInfo"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
GetCallInfoResponse	**tns:UMCallInfo**	Specifies information about the status of a phone call. This element MUST be present.

3.1.4.3.3 Complex Types

The following table lists the XML schema complex type definitions that are specific to this operation.

Complex type	Description
UMCallInfo	Specifies the phone call status and provides information about what caused a phone call to reach the **Disconnected** state.

3.1.4.3.3.1 UMCallInfo Complex Type

The **UMCallInfo** complex type specifies the phone call status and provides information about what caused a phone call to enter the **Disconnected** state.

```
<xs:complexType name="UMCallInfo">
  <xs:sequence>
    <xs:element name="CallState"
      type="tns:UMCallState"
      maxOccurs="1"
      minOccurs="1"
    />
    <xs:element name="EventCause"
      type="tns:UMEventCause"
      maxOccurs="1"
```

```
              minOccurs="1"
          />
      </xs:sequence>
  </xs:complexType>
```

Child Elements

Element	Type	Description
CallState	**tns:UMCallState**	Specifies a value that indicates the status of a call for which the **GetCallInfo** operation requested information. This element MUST be present.
EventCause	**tns:UMEventCause**	Specifies a value that indicates the **event** that caused a call to enter the **Disconnected** state. This element MUST be present.

3.1.4.3.4 Simple Types

The following table lists the XML schema simple definitions that are specific to this operation.

Simple type	Description
UMCallState	Specifies the state of a phone call at the time that the **GetCallInfo** operation request is successfully processed.
UMEventCause	Specifies the reason that a phone call was disconnected.

3.1.4.3.4.1 UMCallState Simple Type

The **UMCallState** simple type specifies the state of a phone call at the time that the **GetCallInfo** operation request is successfully processed.

```
  <xs:simpleType name="UMCallState">
    <xs:restriction
      base="s:string"
    >
      <xs:enumeration
        value="Idle"
       />
      <xs:enumeration
        value="Connecting"
       />
      <xs:enumeration
        value="Alerted"
       />
      <xs:enumeration
        value="Connected"
       />
      <xs:enumeration
        value="Disconnected"
       />
      <xs:enumeration
        value="Incoming"
       />
```

```
          <xs:enumeration
           value="Transferring"
          />
          <xs:enumeration
           value="Forwarding"
          />
     </xs:restriction>
   </xs:simpleType>
```

Enumeration

The following values are defined by the **UMCallState** simple type:

Value	Description
Idle	Specifies the initial state of the phone call system before a phone call has been initiated and after a phone call has exited the **Disconnected** state. No phone call context **handle** is associated with this state and therefore this state is not applicable to this protocol.
Connecting	Specifies that the Unified Messaging system is dialing or waiting for a phone to answer the call. This value MUST be sent to the client when the Unified Messaging system is dialing or waiting for a phone to answer the call.
Alerted	This state is not applicable to this protocol.
Connected	Specifies that a phone call between the Unified Messaging system and a telephone is connected. This value MUST be sent to the client when the Unified Messaging system and the telephone are connected.
Disconnected	Specifies that a phone call between the Unified Messaging system and a telephone has been disconnected. This value MUST be sent to the client when the Unified Messaging system and the telephone are disconnected.
Incoming	This state is not applicable to this protocol.
Transferring	This state is not applicable to this protocol.
Forwarding	This state is not applicable to this protocol.

The phone call status system state model is specified in section 3.1.1.1.

3.1.4.3.4.2 UMEventCause Simple Type

The **UMEventCause** simple type specifies the reason that a phone call was disconnected.

```
   <xs:simpleType name="UMEventCause">
     <xs:restriction
       base="s:string"
     >
       <xs:enumeration
         value="None"
        />
       <xs:enumeration
         value="UserBusy"
        />
```

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```
      <xs:enumeration
        value="NoAnswer"
       />
      <xs:enumeration
        value="Unavailable"
       />
      <xs:enumeration
        value="Other"
       />
    </xs:restriction>
  </xs:simpleType>
```

Enumeration

The following values are defined by the **UMEventCause** simple type:

Value	Description
None	Specifies that a call is not in the **Disconnected** state or that the disconnect reason is unknown. This value MUST be returned if the phone call is not in the **Disconnected** state.
UserBusy	Specifies that the called party line was busy. This value MUST be returned if the party line is busy.
NoAnswer	Specifies that the called party did not answer. This value MUST be returned if the call is not answered.
Unavailable	Specifies that the called party number was not available. This value MUST be returned if the phone number that was called is not available.
Other	Specifies all other disconnect reasons. This value MUST be returned if the **None**, **UserBusy**, **NoAnswer**, or **Unavailable** values are not applicable to specify the reason why a phone call is in the **Disconnected** state.

The phone call status system state model is specified in section 3.1.1.1.

3.1.4.4 GetPhoneCallInformation Operation

The **GetPhoneCallInformation** operation gets information about a telephone call. The **GetPhoneCallInformation** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.15.<2>

```
  <wsdl:operation name="GetPhoneCallInformation">
      <wsdl:input message="tns:GetPhoneCallInformationSoapIn" />
      <wsdl:output message="tns:GetPhoneCallInformationSoapOut" />
  </wsdl:operation>
```

Request

Message Format	Description
tns:GetPhoneCallInformationSoapIn	Specifies the SOAP message that initiates an attempt to get information about an active phone call.

Response

Message Format	Description
tns:GetPhoneCallInformationSoapOut	Specifies the SOAP message that describes the disposition of an attempt to disconnect a phone call.

3.1.4.4.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
GetPhoneCallInformationSoapIn	Specifies the request to get information about a phone call.
GetPhoneCallInformationSoapOut	Specifies the response to a request to get information about a phone call.

3.1.4.4.1.1 GetPhoneCallInformationSoapIn

The **GetPhoneCallInformationSoapIn** WSDL message specifies the **GetPhoneCallInformation** operation request.

```
<wsdl:message name="GetPhoneCallInformationSoapIn">
    <wsdl:part name="request" element="tns:GetPhoneCallInformation"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The parts of the **GetPhoneCallInformationSoapIn** message are described in the following table.

Part name	Element/type	Description
request	<tns:GetPhoneCallInformation>	Specifies the request.
Impersonation	<t:ExchangeImpersonation>	Specifies impersonation information. The <ExchangeImpersonation> element is specified in [MS-OXWSCDATA] section 2.2.4.2.
MailboxCulture	<t:MailboxCulture>	Specifies the language to use to access the mailbox. The languages are defined by [RFC3066].
RequestVersion	<t:RequestServerVersion>	Specifies the target schema version for the **GetPhoneCallInformation** operation request. The <RequestServerVersion> element is specified in [MS-OXWSCDATA] section 2.2.4.7.

3.1.4.4.1.2 GetPhoneCallInformationSoapOut

The **GetPhoneCallInformationSoapOut** WSDL message specifies the **GetPhoneCallInformation** operation response.

```
<wsdl:message name="GetPhoneCallInformationSoapOut">
```

```
    <wsdl:part name="GetPhoneCallInformationResult"
element="tns:GetPhoneCallInformationResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The parts of the **GetPhoneCallInformationSoapOut** message are listed in the following table.

Part name	Element/type	Description
GetPhoneCallInformationResult	<tns:GetPhoneCallInformationResponse>	Specifies the response.
ServerVersion	<t:ServerVersionInfo>	Specifies the server version for the response. The <ServerVersionInfo> element is specified in [MS-OXWSCDATA] section 2.2.4.8.

A successful **GetPhoneCallInformation** operation response has a text value of **Success** for the **ResponseClass** attribute of the <GetPhoneCallInformationResponse> XML instance element (section 3.1.4.4.2.2). The <ResponseCode> child element of the <GetPhoneCallInformationResponse> XML instance element MUST have a text value of **NoError**.

A **GetPhoneCallInformation** operation error response caused by an invalid phone call identifier MUST have a text value of **Error** for the **ResponseClass** attribute of the <GetPhoneCallInformationResponse> XML instance element (section 3.1.4.4.2.2). The <ResponseCode> child element of the <GetPhoneCallInformationResponse> XML instance element MUST have a text value of **ErrorInvalidPhoneCallId**. The <MessageText> child element of the <GetPhoneCallInformationResponse> XML instance element MUST have a text value of **The phone call ID isn't valid.**

3.1.4.4.2 Elements

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

Element	Description
<GetPhoneCallInformation>	Specifies a request to get information about a phone call.
<GetCallInfoResponse>	Specifies a response to **GetPhoneCallInformation** operation request.

3.1.4.4.2.1 GetPhoneCallInformation Element

The <GetPhoneCallInformation> element specifies a request to get telephone call information. This element MUST be present.

```
<xs:element name="GetPhoneCallInformation"
  type="m:GetPhoneCallInformationType"
 />
```

3.1.4.4.2.2   GetPhoneCallInformationResponse Element

The <GetPhoneCallInformationResponse> element specifies a response to get telephone call information. This element MUST be present.

```
<xs:element name="GetPhoneCallInformationResponse"
  type="m:GetPhoneCallInformationResponseMessageType"
 />
```

3.1.4.4.3   Complex Types

The following table lists the XML schema complex type definitions that are specific to this operation.

Complex type	Description
GetPhoneCallInformationType	Specifies a request to get telephone call information.
GetPhoneCallInformationResponseMessageType	Specifies a response to a request to get telephone call information.
PhoneCallInformationType	Specifies the state information for a telephone call.

3.1.4.4.3.1   GetPhoneCallInformationType Complex Type

The **GetPhoneCallInformationType** complex type specifies a request to get telephone call information.

```
<xs:complexType name="GetPhoneCallInformationType">
  <xs:complexContent>
    <xs:restriction
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="PhoneCallId"
          type="t:PhoneCallIdType"
          maxOccurs="1"
          minOccurs="1"
         />
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
PhoneCallId	**t:PhoneCallIdType**	Specifies the identifier of the telephone call to disconnect. This element MUST occur only once. The **PhoneCallIdType** complex type is specified in section 2.2.4.1.

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The **BaseRequestType** complex type is an abstract type. The **BaseRequestType** complex type is specified in [MS-OXWSCDATA] section 2.2.3.14.

3.1.4.4.3.2 GetPhoneCallInformationResponseMessageType Complex Type

The **GetPhoneCallInformationResponseMessageType** complex type specifies a response to a request to get telephone call information.

```
<xs:complexType name="GetPhoneCallInformationResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ResponseMessageType"
    >
      <xs:sequence>
        <xs:element name="PhoneCallInformation"
          type="t:PhoneCallInformationType"
          maxOccurs="1"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
PhoneCallInformation	**t:PhoneCallInformationType**	Specifies the state information for a telephone call. This element MUST be present for a successful response. This element MUST NOT be present in the case of an error response.

3.1.4.4.3.3 PhoneCallInformationType Complex Type

The **PhoneCallInformationType** complex type specifies the state information for a telephone call.

```
<xs:complexType name="PhoneCallInformationType">
  <xs:sequence>
    <xs:element name="PhoneCallState"
      type="t:PhoneCallStateType"
      maxOccurs="1"
      minOccurs="1"
    />
    <xs:element name="ConnectionFailureCause"
      type="t:ConnectionFailureCauseType"
      maxOccurs="1"
      minOccurs="1"
    />
    <xs:element name="SIPResponseText"
      type="xs:string"
      minOccurs="0"
      maxOccurs="1"
    />
    <xs:element name="SIPResponseCode"
```

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```
        type="xs:string"
        minOccurs="0"
        maxOccurs="1"
       />
    </xs:sequence>
  </xs:complexType>
```

Child Elements

Element	Type	Description
PhoneCallState	**t:PhoneCallStateType**	Specifies the state for a telephone call. This element MUST be present. The phone call system state diagram is specified in section 3.1.1.1.
ConnectionFailureCause	**t:ConnectionFailureCauseType**	Specifies the reason why a telephone call was disconnected. This element MUST be present.
SIPResponseText	xs:string	Specifies the SIP response text. This element MUST NOT be present for a successful **GetPhoneCallInformation** operation response. The **xs:string** type is specified in [XMLSCHEMA2].
SIPResponseCode	xs:string	Specifies the SIP response code. This element MUST NOT be present for a successful **GetPhoneCallInformation** operation response. The **xs:string** type is specified in [XMLSCHEMA2].

3.1.4.4.4 Simple Types

The following table lists the XML schema simple type definitions that are specific to this operation.

Simple type	Description
ConnectionFailureCauseType	Specifies the reason that a telephone call was disconnected.
PhoneCallStateType	Specifies the state of a telephone call at the time that the **GetPhoneCallInformation** operation request is successfully processed.

3.1.4.4.4.1 ConnectionFailureCauseType Simple Type

The **ConnectionFailureCauseType** simple type specifies the disconnect reason of a telephone call.

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

```
        <xs:enumeration
          value="UserBusy"
         />
        <xs:enumeration
          value="NoAnswer"
         />
        <xs:enumeration
          value="Unavailable"
         />
        <xs:enumeration
          value="Other"
         />
      </xs:restriction>
   </xs:simpleType>
```

Enumeration

The following values are defined by the simple type:

Value	Description
None	Specifies that a call is not in the **Disconnected** state or that the disconnect reason is unknown. This value MUST be returned if the phone call is not in the **Disconnected** state.
UserBusy	Specifies that the called party line was busy. This value MUST be returned if the party line is busy.
NoAnswer	Specifies that the called party did not answer. This value MUST be returned if the call is not answered.
Unavailable	Specifies that the called party number was not available. This value MUST be returned if the phone number that was called is not available.
Other	Specifies all other disconnect reasons. This value MUST be returned if the **None**, **UserBusy**, **NoAnswer**, or **Unavailable** values are not applicable to specify the reason why a phone call is in the **Disconnected** state.

The **xs:string** type is specified in [XMLSCHEMA2]. The phone call status system state model is specified in section 3.1.1.1.

3.1.4.4.4.2   PhoneCallStateType Simple Type

The **PhoneCallState** simple type specifies the current state for a phone call.

```
   <xs:simpleType>
     <xs:restriction
       base="xs:string"
     >
       <xs:enumeration
         value="Idle"
        />
       <xs:enumeration
         value="Connecting"
        />
       <xs:enumeration
```

```
      value="Alerted"
   />
   <xs:enumeration
     value="Connected"
    />
   <xs:enumeration
     value="Disconnected"
    />
   <xs:enumeration
     value="Incoming"
    />
   <xs:enumeration
     value="Transferring"
    />
   <xs:enumeration
     value="Forwarding"
    />
   </xs:restriction>
  </xs:simpleType>
```

Enumeration

The following values are defined by the simple type:

Value	Description
Idle	Specifies the initial state of the phone call system before a phone call has been initiated and after a phone call has exited the **Disconnected** state. No phone call context handle is associated with this state and therefore this state is not applicable to this protocol.
Connecting	Specifies that the Unified Messaging system is dialing or waiting for a phone to answer the call. This value MUST be sent to the client when the Unified Messaging system is dialing or waiting for a phone to answer the call.
Alerted	This state is not applicable to this protocol.
Connected	Specifies that a call between the Unified Messaging system and a telephone is connected. This value MUST be sent to the client when the Unified Messaging system and the telephone are connected.
Disconnected	Specifies that a call between the Unified Messaging system and a telephone device is disconnected. This value MUST be sent to the client when the Unified Messaging system and the telephone are disconnected.
Incoming	This state is not applicable to this protocol.
Transferring	This state is not applicable to this protocol.
Forwarding	This state is not applicable to this protocol.

The phone call status system state model is specified in section 3.1.1.1.

3.1.4.5 GetUMProperties Operation

The **GetUMProperties** operation returns a list of Unified Messaging properties. The **GetUMProperties** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="GetUMProperties">
  <wsdl:input message="tns:GetUMPropertiesSoapIn" />
  <wsdl:output message="tns:GetUMPropertiesSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:GetUMPropertiesSoapIn	Specifies the SOAP message that requests Unified Messaging properties.

Response

Message Format	Description
tns:GetUMPropertiesSoapOut	Specifies the SOAP message that contains the response to an attempt to get Unified Messaging properties.

If the operation succeeds, a <GetUMPropertiesResponse> element is returned. If the operation fails, a SOAP fault response [SOAP1.1] is returned that contains information about the failure. A SOAP fault response MUST be returned if the **GetUMPropertiesSoapIn** message request XML is malformed. The structure of a SOAP fault for a malformed request is specified in section 3.1.4.

3.1.4.5.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
GetUMPropertiesSoapIn	Specifies the request to get Unified Messaging properties.
GetUMPropertiesSoapOut	Specifies the response to a request to get Unified Messaging properties.

3.1.4.5.1.1 GetUMPropertiesSoapIn Message

The **GetUMPropertiesSoapIn** WSDL message specifies the **GetUMProperties** operation request.

The SOAP action value is:

http://schemas.microsoft.com/exchange/services/2006/messages/GetUMProperties

The SOAP body contains a <GetUMProperties> element.

```
<wsdl:message name="GetUMPropertiesSoapIn">
  <wsdl:part name="parameters" element="tns:GetUMProperties" />
</wsdl:message>
```

The parts of the **GetUMPropertiesSoapIn** message are described in the following table.

Part name	Element/type	Description
parameters	<GetUMProperties>	Specifies the information that is required to get Unified Messaging properties. The <GetUMProperties> element is specified in section 3.1.4.5.2.1.

3.1.4.5.1.2 GetUMPropertiesSoapOut Message

The **GetUMPropertiesSoapOut** WSDL message specifies the **GetUMProperties** operation response.

The SOAP body contains a <GetUMPropertiesResponse> element.

```
<wsdl:message name="GetUMPropertiesSoapOut">
  <wsdl:part name="parameters" element="tns:GetUMPropertiesResponse" />
</wsdl:message>
```

The parts of the **GetUMPropertiesSoapOut** message are described in the following table.

Part name	Element/type	Description
parameters	<GetUMPropertiesResponse>	Specifies a response to a **GetUMProperties** operation request. The <GetUMPropertiesResponse> element is specified in section 3.1.4.5.2.2.

3.1.4.5.2 Elements

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

Element	Description
<GetUMProperties>	Specifies a request to get Unified Messaging properties.
<GetUMPropertiesResponse>	Specifies a response to a **GetUMProperties** operation request.

3.1.4.5.2.1 GetUMProperties Element

The <GetUMProperties> element specifies a request to get Unified Messaging properties. This element MUST be present.

```
<xs:element name="GetUMProperties">
  <xs:complexType />
</xs:element>
```

3.1.4.5.2.2 GetUMPropertiesResponse Element

The <GetUMPropertiesResponse> element specifies a response to a **GetUMProperties** operation request. This element MUST be present for successful **GetUMProperties** operation response messages.

```
<xs:element name="GetUMPropertiesResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="GetUMPropertiesResponse"
        type="tns:UMProperties"
        maxOccurs="1"
        minOccurs="1"
        />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
GetUMPropertiesResponse	**tns:UMProperties**	Specifies a list of Unified Messaging properties. This element MUST be present.

3.1.4.5.3 Complex Types

The following table lists the XML schema complex type definitions that are specific to this operation.

Complex type	Description
UMProperties	Specifies a list of Unified Messaging properties.

3.1.4.5.3.1 UMProperties Complex Type

The **UMProperties** complex type specifies a list of Unified Messaging properties.

```
<xs:complexType name="UMProperties">
  <xs:sequence>
    <xs:element name="OofStatus"
      type="s:boolean"
      maxOccurs="1"
      minOccurs="1"
      />
    <xs:element name="MissedCallNotificationEnabled"
      type="s:boolean"
      maxOccurs="1"
      minOccurs="1"
      />
    <xs:element name="PlayOnPhoneDialString"
      type="s:string"
      maxOccurs="1"
      minOccurs="1"
      />
    <xs:element name="TelephoneAccessNumbers"
      type="s:string"
      maxOccurs="1"
      minOccurs="1"
      />
    <xs:element name="TelephoneAccessFolderEmail"
```

```
        type="s:string"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
```

Child Elements

Element	Type	Description
OofStatus	s:boolean	Specifies whether the Out of Office (OOF) greeting is enabled. A text value of **true** specifies that the OOF greeting is enabled. This element MUST be present. The **s:boolean** type is specified in [XMLSCHEMA2].
MissedCallNotificationEnabled	s:boolean	Specifies whether missed call notifications are enabled. A text value of **true** specifies that missed call notifications are enabled. This element MUST be present.
PlayOnPhoneDialString	s:string	Specifies the default telephone number to use for the **PlayOnPhone** and **PlayOnPhoneGreeting** operations (sections 3.1.4.8 and 3.1.4.9). This element MUST be present. The **s:string** type is specified in [XMLSCHEMA2].
TelephoneAccessNumbers	s:string	Specifies a comma-separated list of telephone numbers that the user can use to access Unified Messaging via a telephone. This element MUST be present.
TelephoneAccessFolderEmail	s:string	Specifies the identifier for the e-mail folder from which Unified Messaging will read messages over the telephone. The text value of this is the folder **EntryID** encoded as a base64 string ([RFC2045] section 6.8).This element MUST be present.

3.1.4.6 IsUMEnabled Operation

The **IsUMEnabled** operation returns a value that indicates whether the user who is making the request is enabled for Unified Messaging. The **IsUMEnabled** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="IsUMEnabled">
  <wsdl:input message="tns:IsUMEnabledSoapIn" />
  <wsdl:output message="tns:IsUMEnabledSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:IsUMEnabledSoapIn	Specifies the SOAP message that requests information that indicates whether Unified Messaging is enabled for a user.

Response

Message Format	Description
tns:IsUMEnabledSoapOut	Specifies the SOAP message that contains the response to an attempt to get information that indicates whether Unified Messaging is enabled for a user.

If the operation succeeds, an <IsUMEnabledResponse> element is returned. If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure. A SOAP fault is returned if the tns:IsUMEnabledSoapIn request XML is malformed. The structure of a SOAP fault for a malformed request is specified in section 3.1.4.<3>

3.1.4.6.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
IsUMEnabledSoapIn	Specifies the request to get information about whether the Unified Messaging feature is enabled for a user.
IsUMEnabledSoapOut	Specifies the response to a request to get information about whether the Unified Messaging feature is enabled for a user.

3.1.4.6.1.1 IsUMEnabledSoapIn Message

The **IsUMEnabledSoapIn** WSDL message specifies the **IsUMEnabled** operation request.

The SOAP action value is:

http://schemas.microsoft.com/exchange/services/2006/messages/IsUMEnabled

The SOAP body contains a <IsUMEnabled> element.

```
<wsdl:message name="IsUMEnabledSoapIn">
  <wsdl:part name="parameters" element="tns:IsUMEnabled" />
</wsdl:message>
```

The parts of the **IsUMEnabledSoapIn** message are described in the following table.

Part name	Element/type	Description
parameters	<IsUMEnabled>	Specifies the information that is required to discover whether a mailbox is enabled for Unified Messaging. The <IsUMEnabled> element is specified in section 3.1.4.6.2.1.

3.1.4.6.1.2 IsUMEnabledSoapOut Message

The **IsUMEnabledSoapOut** WSDL message specifies the **IsUMEnabled** operation response.

The SOAP body contains a **IsUMEnabledResponse** element.

```
<wsdl:message name="IsUMEnabledSoapOut">
```

```
        <wsdl:part name="parameters" element="tns:IsUMEnabledResponse" />
    </wsdl:message>
```

The parts of the **IsUMEnabledSoapOut** message are described in the following table.

Part name	Element/type	Description
parameters	<IsUMEnabledResponse>	Specifies a response to an **IsUMEnabled** operation request. The <IsUMEnabledResponse> element is specified in section 3.1.4.6.2.2.

3.1.4.6.2 Elements

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

Element	Description
<IsUMEnabled>	Specifies a request to get information about whether a mailbox is enabled for Unified Messaging
<IsUMEnabledResponse>	Specifies a response to an **IsUMEnabled** operation request.

3.1.4.6.2.1 IsUMEnabled Element

The <IsUMEnabled> element specifies a request to get information about whether a mailbox is enabled for Unified Messaging. This element MUST be present.

```
<xs:element name="IsUMEnabled">
  <xs:complexType />
</xs:element>
```

3.1.4.6.2.2 IsUMEnabledResponse Element

The <IsUMEnabledResponse> element specifies a response to an **IsUMEnabled** operation request. This element MUST be present in response to a successful request.

```
<xs:element name="IsUMEnabledResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="IsUMEnabledResponse"
        type="s:boolean"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
IsUMEnabledResponse	s:boolean	Specifies a value that indicates whether a mailbox is enabled for Unified Messaging. This element MUST be present. The **s:boolean** type is specified in [XMLSCHEMA2].

3.1.4.7 PlayOnPhone2 Operation

The **PlayOnPhone2** operation initiates an outbound call and plays a voice message over the telephone. The **PlayOnPhone2** operation uses the endpoint specified in [MS-OXDSCLI] section 3.1.4.7.<4>

```
<wsdl:operation name="PlayOnPhone2">
    <wsdl:input message="tns:PlayOnPhoneSoapIn2" />
    <wsdl:output message="tns:PlayOnPhoneSoapOut2" />
</wsdl:operation>
```

Request

Message Format	Description
tns:PlayOnPhoneSoapIn2	Specifies the SOAP message that initiates an outbound call and plays a voice message or item over the telephone.

Response

Message Format	Description
tns:PlayOnPhoneSoapOut2	Specifies the SOAP message that describes the disposition of an attempt to play a voice mail or item over the telephone.

3.1.4.7.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
PlayOnPhoneSoapIn2	Specifies the request that initiates the playing of an item or voice mail on a phone call.
PlayOnPhoneSoapOut2	Specifies the response to a request to initiate the playing of an item or voice mail on a phone call.

3.1.4.7.1.1 PlayOnPhoneSoapIn2

The **PlayOnPhoneSoapIn2** WSDL message specifies the **PlayOnPhone2** operation request.

```
<wsdl:message name="PlayOnPhoneSoapIn2">
    <wsdl:part name="request" element="tns:PlayOnPhone2Type"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
```

```
        </wsdl:message>
```

The parts of the **PlayOnPhoneSoapIn2** message are listed in the following table.

Part name	Element/type	Description
request	**tns:PlayOnPhone2Type**	Specifies the request.
Impersonation	<t:ExchangeImpersonation>	Specifies impersonation information. The <ExchangeImpersonation> element is specified in [MS-OXWSCDATA] section 2.2.4.2.
MailboxCulture	<t:MailboxCulture>	Specifies the language to use for accessing the mailbox. The languages are specified in [RFC3066].
RequestVersion	<t:RequestServerVersion>	Specifies the target schema version for the **PlayOnPhone** operation request. The <RequestServerVersion> element is specified in [MS-OXWSCDATA] section 2.2.4.7.

3.1.4.7.1.2   PlayOnPhoneSoapOut2

The **PlayOnPhoneSoapOut2** WSDL message specifies the **PlayOnPhone2** operation response.

```
<wsdl:message name="PlayOnPhoneSoapOut2">
    <wsdl:part name="PlayOnPhoneResult" element="tns:PlayOnPhoneResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The parts of the **PlayOnPhoneSoapOut2** message are described in the following table.

Part name	Element/type	Description
PlayOnPhoneResult	**tns:PlayOnPhoneResponse2Type**	Specifies the response.
ServerVersion	<t:ServerVersionInfo>	Specifies the server version for the response.

A successful **PlayOnPhone2** operation response MUST have a text value of **Success** for the **ResponseClass** attribute of the <PlayOnPhoneResponse> XML instance element (section 3.1.4.7.2.3). The <ResponseCode> child element of the <PlayOnPhoneResponse> XML instance element MUST have a text value of **NoError**. Additionally, a successful **PlayOnPhone2** operation response MUST have a valid a phone call identifier returned in the <PhoneCallId> element, as specified in section 3.1.4.7.2.4.

An error **PlayOnPhone2** operation response caused by an invalid item identifier, as specified by the <ItemId> element in section 3.1.4.7.2.1, MUST have a text value of **Error** for the **ResponseClass** attribute of the <PlayOnPhoneResponse> XML instance element (section 3.1.4.7.2.3). The <ResponseCode> child element of the <PlayOnPhoneResponse> XML instance element MUST have a text value of **ErrorInvalidIdMalformed**. The <MessageText> child element of the <PlayOnPhoneResponse> XML instance element MUST have a text value of **Id is malformed.** The response SOAP body XML MUST match the following XML:

```
    <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <PlayOnPhoneResponse ResponseClass="Error"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <MessageText>Id is malformed.</MessageText>
      <ResponseCode>ErrorInvalidIdMalformed</ResponseCode>
      <DescriptiveLinkKey>0</DescriptiveLinkKey>
    </PlayOnPhoneResponse>
  </s:Body>
```

An error **PlayOnPhone2** operation response caused by a dial string that does not represent a valid phone number, as specified by the <DialString> element in section 3.1.4.7.2.1, MUST have a text value of **Error** for the **ResponseClass** attribute of the <PlayOnPhoneResponse> XML instance element (section 3.1.4.7.2.3). The <ResponseCode> child element of the <PlayOnPhoneResponse> XML instance element MUST have a text value of **ErrorPhoneNumberNotDialable**. The <MessageText> child element of the <PlayOnPhoneResponse> XML instance element MUST have a text value of **Dialing restrictions are preventing the phone number that was entered from being dialed.** The response SOAP body XML MUST match the following XML:

```
    <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <PlayOnPhoneResponse ResponseClass="Error"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <MessageText>Dialing restrictions are preventing the phone number that was entered from
being dialed.</MessageText>
      <ResponseCode>ErrorPhoneNumberNotDialable</ResponseCode>
      <DescriptiveLinkKey>0</DescriptiveLinkKey>
    </PlayOnPhoneResponse>
  </s:Body>
```

3.1.4.7.2   Complex Types

The following table lists the XML schema complex type definitions that are specific to this operation.

Complex type	Description
PlayOnPhoneType	Specifies the request to play a voice mail or mailbox item over the telephone.
PlayOnPhone2Type	Specifies the request to play a voice mail or mailbox item over the telephone.
PlayOnPhoneResponse2Type	Specifies the response to a request to play a voice mail or mailbox item over the telephone.
PlayOnPhoneResponseMessageType	Specifies the response to a request to play a voice mail or mailbox item over the telephone.

3.1.4.7.2.1   PlayOnPhoneType Complex Type

The **PlayOnPhoneType** complex type specifies the request to play a voice mail or mailbox item over the telephone. The **PlayOnPhoneType** complex type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.3.14.

```
<xs:complexType name="PlayOnPhoneType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="ItemId"
          type="t:ItemIdType"
          maxOccurs="1"
          minOccurs="1"
        />
        <xs:element name="DialString"
          type="xs:string"
          maxOccurs="1"
          minOccurs="1"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
ItemId	**t:ItemIdType**	Specifies the voice mail or item identifier of the voice mail or item to play on the telephone number identified by the <DialString> element. This element MUST be present. The **ItemIdType** complex type is specified in [MS-OXWSCORE] section 2.2.3.13.
DialString	xs:string	Specifies the dial string of the telephone that plays the voice mail or mailbox item as identified by the <ItemId> element. This element MUST be present. The **string** type is specified in [XMLSCHEMA2].

3.1.4.7.2.2   PlayOnPhone2Type Complex Type

The **PlayOnPhone2Type** complex type specifies the request to play a voice mail or mailbox item over the telephone.

```
<xs:complexType name="PlayOnPhone2Type">
  <xs:sequence>
    <xs:element name="PlayOnPhone"
      type="m:PlayOnPhoneType"
    />
  </xs:sequence>
</xs:complexType>
```

Child Elements

Element	Type	Description
PlayOnPhone	**m:PlayOnPhoneType**	Specifies the request to play a voice mail or mailbox item over the telephone. This element MUST be present.

3.1.4.7.2.3   PlayOnPhoneResponse2Type Complex Type

The **PlayOnPhone2Type** complex type specifies the response to a request to play a voice mail or item over the telephone.

```
<xs:complexType name="PlayOnPhoneResponse2Type">
  <xs:sequence>
    <xs:element name="PlayOnPhoneResponse"
      type="m:PlayOnPhoneResponseMessageType"
     />
  </xs:sequence>
</xs:complexType>
```

Child Elements

Element	Type	Description
PlayOnPhoneResponse	**m:PlayOnPhoneResponseMessageType**	Specifies the response to play a voice mail or item over the telephone. This element MUST be present.

3.1.4.7.2.4   PlayOnPhoneResponseMessageType Complex Type

The **PlayOnPhoneResponseMessageType** complex type specifies the response to a request to play a voice mail or mailbox item over the telephone. The **PlayOnPhoneResponseMessageType** complex type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.3.14.

```
<xs:complexType name="PlayOnPhoneResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base=""
    >
      <xs:sequence>
        <xs:element name="PhoneCallId"
          type="t:PhoneCallIdType"
          maxOccurs="1"
          minOccurs="0"
         />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
PhoneCallId	**t:PhoneCallIdType**	Specifies the telephone call identifier. This element MUST be present if the request is successful. This element MUST NOT be present if the request is unsuccessful. The **PhoneCallIdType**

Element	Type	Description
		complex type is specified in section 2.2.4.1.

3.1.4.8 PlayOnPhone Operation

The **PlayOnPhone** operation initiates an outbound call and plays a voice message or item over the telephone. The **PlayOnPhone** operation uses the endpoint specified in [MS-OXDSCLI] section 3.1.4.8.

```
<wsdl:operation name="PlayOnPhone">
  <wsdl:input message="tns:PlayOnPhoneSoapIn" />
  <wsdl:output message="tns:PlayOnPhoneSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:PlayOnPhoneSoapIn	Specifies the SOAP message that initiates an outbound call and plays a voice message or item over the telephone.

Response

Message Format	Description
tns:PlayOnPhoneSoapOut	Specifies the SOAP message that describes the disposition of an attempt to play a voice mail or item over the telephone.

If the operation succeeds, a <PlayOnPhoneResponse> element is returned.

If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure.

A SOAP fault is returned if the **PlayOnPhone** operation specifies an invalid item identifier in the <entryId> element, as specified in section 3.1.4.8.2.1. The following XML specifies the SOAP fault response that MUST be returned if an invalid item identifier is provided as an argument to a **PlayOnPhone** operation request.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <s:Fault>
      <faultcode
xmlns:a="http://schemas.microsoft.com/exchange/services/2006/errors">a:InvalidObjectIdExcepti
on</faultcode>
      <faultstring xml:lang="en-US">The object identifier isn't valid.</faultstring>
      <detail>
        <m:ExceptionType
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">InvalidObjectIdExcepti
on</m:ExceptionType>
      </detail>
    </s:Fault>
  </s:Body>
</s:Envelope>
```

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The <faultcode> element MUST contain a text value of **a:InvalidObjectIdException** if an invalid item identifier is sent in the request.

The <faultstring> element MUST contain a text value of **The object identifier isn't valid** if an invalid item identifier is sent in the request.

The contents of the SOAP fault <detail> element are specified by the <ExceptionType> element (section 2.2.3.1).

A SOAP fault MUST be returned if the **PlayOnPhone** operation specifies an invalid dial string in the <DialString> element, as specified in section 3.1.4.8.2.1. The following XML specifies the SOAP fault response that MUST be returned if an invalid <DialString> element is provided as an argument to a **PlayOnPhone** operation request.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <s:Fault>
      <faultcode
xmlns:a="http://schemas.microsoft.com/exchange/services/2006/errors">a:DialingRulesException<
/faultcode>
      <faultstring xml:lang="en-US">Dialing restrictions are preventing the phone number that
was entered from being dialed.</faultstring>
      <detail>
        <m:ExceptionType
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">DialingRulesException<
/m:ExceptionType>
      </detail>
    </s:Fault>
  </s:Body>
</s:Envelope>
```

The <faultcode> element MUST contain a text value of **a:DialingRulesException** if an invalid dial string is sent in the request.

The <faultstring> element MUST contain a text value of **Dialing restrictions are preventing the phone number that was entered from being dialed** if an invalid dial string is sent in the request.

The contents of the SOAP fault <detail> element are specified by the <ExceptionType> element.

3.1.4.8.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
PlayOnPhoneSoapIn	Specifies the request that initiates the playing of an item or voice mail on a phone call.
PlayOnPhoneSoapOut	Specifies the response to a request to initiate the playing of an item or voice mail on a phone call.

3.1.4.8.1.1   PlayOnPhoneSoapIn Message

The **PlayOnPhoneSoapIn** WSDL message specifies the **PlayOnPhone** operation request.

The SOAP action value is:

http://schemas.microsoft.com/exchange/services/2006/messages/PlayOnPhone

The SOAP body contains a <PlayOnPhone> element.

```
<wsdl:message name="PlayOnPhoneSoapIn">
  <wsdl:part name="parameters" element="tns:PlayOnPhone" />
</wsdl:message>
```

The parts of the **PlayOnPhoneSoapIn** message are described in the following table.

Part name	Element/type	Description
parameters	<PlayOnPhone>	Specifies the information that is required to play a voice message or item on a telephone. The <PlayOnPhone> element is specified in section 3.1.4.8.2.1.

3.1.4.8.1.2   PlayOnPhoneSoapOut Message

The **PlayOnPhoneSoapOut** WSDL message specifies the response to a request to initiate the playing of an item or voice mail on a phone call.

The SOAP body contains a <PlayOnPhoneResponse> element.

```
<wsdl:message name="PlayOnPhoneSoapOut">
  <wsdl:part name="parameters" element="tns:PlayOnPhoneResponse" />
</wsdl:message>
```

The parts of the **PlayOnPhoneSoapOut** message are described in the following table.

Part name	Element/type	Description
parameters	<PlayOnPhoneResponse>	Specifies a response to a **PlayOnPhone** operation request. The <PlayOnPhoneResponse> element is specified in section 3.1.4.8.2.2.

3.1.4.8.2   Elements

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

Element	Description
<PlayOnPhone>	Specifies a request to play a voice message or item on a telephone.
<PlayOnPhoneResponse>	Specifies a response to a **PlayOnPhone** operation request.

3.1.4.8.2.1 PlayOnPhone Element

The <PlayOnPhone> element specifies a request to play a voice message or item on a telephone. This element MUST be present.

```
<xs:element name="PlayOnPhone">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="entryId"
        type="s:string"
        maxOccurs="1"
        minOccurs="1"
       />
      <xs:element name="DialString"
        type="s:string"
        maxOccurs="1"
        minOccurs="1"
       />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
entryId	s:string	Specifies the identifier of the voice mail or item to play. This element MUST be present. The value of the <entryId> element is encoded as a base64 string (as specified in [RFC2045] section 6.8). The **string** type is specified in [XMLSCHEMA2].
DialString	s:string	Specifies the telephone number to dial. This element MUST be present.

The EntryID that represents the item identifier that is used in the <entryId> element can be retrieved by using two protocols, the Mailbox Search Web Service protocol [MS-OXWSSRCH] and the Convert Item Identifier Web Service protocol [MS-OXWSCVTID]. Specifically, the **FindItem** operation ([MS-OXWSSRCH] section 3.1.4.2) can return an item identifier that can then be converted into an EntryID by using the **ConvertId** operation ([MS-OXWSCVTID] section 3.1.4.1).

3.1.4.8.2.2 PlayOnPhoneResponse Element

The <PlayOnPhoneResponse> element specifies a response to a **PlayOnPhone** operation request. This element MUST be present if the **PlayOnPhone** operation request is successful.

```
<xs:element name="PlayOnPhoneResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="PlayOnPhoneResponse"
        type="s:string"
        maxOccurs="1"
        minOccurs="1"
       />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
PlayOnPhoneResponse	s:string	Specifies the identifier of the phone call. This element MUST be present. This value MUST be used as the <CallId> element for subsequent **Disconnect** operation (section 3.1.4.2) and **GetCallInfo** operation (section 3.1.4.1) requests. The **string** type is specified in [XMLSCHEMA2].

3.1.4.9   PlayOnPhoneGreeting Operation

The **PlayOnPhoneGreeting** operation initiates an outbound call to play and record a greeting over the telephone. The **PlayOnPhoneGreeting** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="PlayOnPhoneGreeting">
  <wsdl:input message="tns:PlayOnPhoneGreetingSoapIn" />
  <wsdl:output message="tns:PlayOnPhoneGreetingSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:PlayOnPhoneGreetingSoapIn	Specifies the SOAP message that initiates an outbound call to play and record a greeting over the telephone.

Response

Message Format	Description
tns:PlayOnPhoneGreetingSoapOut	Specifies the SOAP message that describes the disposition of an attempt to play a greeting over the telephone.

If the operation succeeds, a <PlayOnPhoneGreetingResponse> element is returned.

If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure.

A SOAP fault is returned if the **PlayOnPhoneGreeting** operation specifies an invalid dial string in the <DialString> element (section 3.1.4.9.2.1). The following XML specifies the SOAP fault response that MUST be returned if an invalid <DialString> element is provided as an argument to a **PlayOnPhoneGreeting** operation request.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <s:Fault>
```

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```
         <faultcode
xmlns:a="http://schemas.microsoft.com/exchange/services/2006/errors">a:DialingRulesException<
/faultcode>
      <faultstring xml:lang="en-US">Dialing restrictions are preventing the phone number that
was entered from being dialed.</faultstring>
      <detail>
        <m:ExceptionType
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">DialingRulesException<
/m:ExceptionType>
      </detail>
    </s:Fault>
  </s:Body>
</s:Envelope>
```

The <faultcode> element MUST contain a text value of **a:DialingRulesException** if an invalid dial string is sent in the request.

The <faultstring> element MUST contain a text value of **Dialing restrictions are preventing the phone number that was entered from being dialed** if an invalid dial string is sent in the request.

The contents of the SOAP fault <detail> element are specified by the <ExceptionType> element (section 2.2.3.1).

3.1.4.9.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
PlayOnPhoneGreetingSoapIn	Specifies the request that initiates the playing of a user's voice mail greeting on a phone call.
PlayOnPhoneGreetingSoapOut	Specifies the response to a request to initiate the playing of a user's voice mail greeting on a phone call.

3.1.4.9.1.1 PlayOnPhoneGreetingSoapIn Message

The **PlayOnPhoneGreetingSoapIn** WSDL message specifies the **PlayOnPhoneGreeting** operation request.

```
   <wsdl:message name="PlayOnPhoneGreetingSoapIn">
     <wsdl:part name="parameters" element="tns:PlayOnPhoneGreeting" />
   </wsdl:message>
```

The parts of the **PlayOnPhoneGreetingSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
parameters	<tns:PlayOnPhoneGreeting>	Specifies the information required to play a Unified Messaging greeting on a telephone.

3.1.4.9.1.2 PlayOnPhoneGreetingSoapOut Message

The **PlayOnPhoneGreetingSoapOut** WSDL message specifies the **PlayOnPhoneGreeting**
operation response.

```
<wsdl:message name="PlayOnPhoneGreetingSoapOut">
  <wsdl:part name="parameters" element="tns:PlayOnPhoneGreetingResponse" />
</wsdl:message>
```

The parts of the **PlayOnPhoneGreetingSoapOut** WSDL message are described in the following
table.

Part name	Element/type	Description
parameters	<tns:PlayOnPhoneGreetingResponse>	Specifies the response to a **PlayOnPhoneGreeting** operation request.

3.1.4.9.2 Elements

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

Element	Description
<PlayOnPhoneGreeting>	Specifies a request to play a Unified Messaging greeting on a telephone.
<PlayOnPhoneGreetingResponse>	Specifies a response to a **PlayOnPhoneGreeting** operation request.

3.1.4.9.2.1 PlayOnPhoneGreeting Element

The <PlayOnPhoneGreeting> element specifies a request to play a Unified Messaging greeting on a
telephone. This element MUST be present.

```
<xs:element name="PlayOnPhoneGreeting">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="GreetingType"
        type="UMGreetingType"
        maxOccurs="1"
        minOccurs="1"
       />
      <xs:element name="DialString"
        type="s:string"
        maxOccurs="1"
        minOccurs="1"
       />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
GreetingType	**UMGreetingType**	Specifies the type of greeting to play. This element MUST be present.
DialString	s:string	Specifies the telephone number to dial. This element MUST be present. The **string** type is specified in [XMLSCHEMA2] section 3.2.

3.1.4.9.2.2 PlayOnPhoneGreetingResponse Element

The <PlayOnPhoneGreetingResponse> element specifies a response to a **PlayOnPhoneGreeting** operation request. This element MUST be present if the **PlayOnPhoneGreeting** operation request is successful.

```
<xs:element name="PlayOnPhoneGreetingResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="PlayOnPhoneGreetingResponse"
        type="s:string"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
PlayOnPhoneGreetingResponse	s:string	Specifies the phone call identifier. This element MUST be present. The text value of this element MUST be used as the text value of the <CallId> element for the **Disconnect** operation (section 3.1.4.1) and the **GetCallInfo** operation (section 3.1.4.3) request. The **string** type is specified in [XMLSCHEMA2] section 3.2.

3.1.4.9.3 Simple Types

The following table lists the XML schema simple definitions that are specific to this operation.

Simple Type	Description
UMGreetingType	Specifies the greeting to be played.

3.1.4.9.3.1 UMGreetingType Simple Type

The **UMGreetingType** simple type specifies the greeting to be played. The text values represented by this type are restricted to a **string** type, as specified in [XMLSCHEMA2] section 3.2.

```
<xs:simpleType name="UMGreetingType">
  <xs:restriction
    base="s:string"
```

```
    >
      <xs:enumeration
       value="NormalCustom"
       />
      <xs:enumeration
       value="OofCustom"
       />
    </xs:restriction>
  </xs:simpleType>
```

Enumeration

The following values are defined by the **UMGreetingType** simple type:

Value	Description
NormalCustom	Specifies the default greeting to be played to callers when the user is not Out of Office (OOF).
OofCustom	Specifies the greeting to be played when the user is OOF.

3.1.4.10   ResetPIN Operation

The **ResetPIN** operation creates a new password for the user who is making the request. The **ResetPIN** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
    <wsdl:operation name="ResetPIN">
      <wsdl:input message="tns:ResetPINSoapIn" />
      <wsdl:output message="tns:ResetPINSoapOut" />
    </wsdl:operation>
```

Request

Message Format	Description
tns:ResetPINSoapIn	Specifies the SOAP message that requests a Unified Messaging pin reset for the user.

Response

Message Format	Description
tns:ResetPINSoapOut	Specifies the SOAP message that contains the response to an attempt to reset a Unified Messaging pin.

If the operation is successful, a <ResetPINResponse> element is returned.

If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure. A SOAP fault MUST be returned if the **ResetPINSoapIn** message request XML is malformed. The structure of a SOAP fault for a malformed request is specified in section 3.1.4.

3.1.4.10.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
ResetPINSoapIn	Specifies the request that initiates an attempt to reset a user's Unified Messaging PIN.
ResetPINSoapOut	Specifies the response to a request to reset a user's Unified Messaging PIN.

3.1.4.10.1.1 ResetPINSoapIn Message

The **ResetPINSoapIn** WSDL message specifies the **ResetPIN** operation request.

```
<wsdl:message name="ResetPINSoapIn">
  <wsdl:part name="parameters" element="tns:ResetPIN" />
</wsdl:message>
```

The parts of the **ResetPINSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
parameters	<tns:ResetPIN>	Specifies the information that is required to reset a user's Unified Messaging password.

3.1.4.10.1.2 ResetPINSoapOut Message

The **ResetPINSoapOut** WSDL message specifies the **ResetPIN** operation response.

```
<wsdl:message name="ResetPINSoapOut">
  <wsdl:part name="parameters" element="tns:ResetPINResponse" />
</wsdl:message>
```

The parts of the **ResetPINSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
parameters	<tns:ResetPINResponse>	Specifies a response to a **ResetPIN** operation request.

3.1.4.10.2 Elements

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

Element	Description
<ResetPIN>	Specifies a request to reset a user's Unified Messaging password.
<ResetPINResponse>	Specifies a response to a **ResetPIN** operation request

3.1.4.10.2.1   ResetPIN Element

The <ResetPIN> element specifies a request to reset a user's Unified Messaging password. This element MUST be present.

```
<xs:element name="ResetPIN">
  <xs:complexType />
</xs:element>
```

3.1.4.10.2.2   ResetPINResponse Element

The <ResetPINResponse> element specifies a response to a **ResetPIN** operation request. This element MUST be present.

```
<xs:element name="ResetPINResponse">
  <xs:complexType />
</xs:element>
```

3.1.4.11   SetMissedCallNotificationEnabled Operation

The **SetMissedCallNotificationEnabled** operation sets a value that indicates whether missed call notifications are enabled for the user who is making the request. The **SetMissedCallNotificationEnabled** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="SetMissedCallNotificationEnabled">
  <wsdl:input message="tns:SetMissedCallNotificationEnabledSoapIn" />
  <wsdl:output message="tns:SetMissedCallNotificationEnabledSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:SetMissedCallNotificationEnabledSoapIn	Specifies the SOAP message that initiates an attempt to enable or disable missed call notifications.

Response

Message Format	Description
tns:SetMissedCallNotificationEnabledSoapOut	Specifies the SOAP message that describes the disposition of an attempt to enable or disable missed call notifications.

If the operation succeeds, a <SetMissedCallNotificationEnabledResponse> element is returned.

If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure. A SOAP fault MUST be returned if the

SetMissedCallNotificationEnabledSoapIn request XML is malformed. The structure of a SOAP fault for a malformed request is specified in section 3.1.4.

3.1.4.11.1   Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
PlayOnPhoneSoapIn2	Specifies the request that initiates an attempt to change a setting that allows missed call notifications to be sent.
PlayOnPhoneSoapOut2	Specifies the response to a request to initiate a change to a setting that allows missed call notifications to be sent.

3.1.4.11.1.1   SetMissedCallNotificationEnabledSoapIn Message

The **SetMissedCallNotificationEnabledSoapIn** WSDL message specifies the **SetMissedCallNotificationEnabled** operation request.

```
<wsdl:message name="SetMissedCallNotificationEnabledSoapIn">
  <wsdl:part name="parameters" element="tns:SetMissedCallNotificationEnabled" />
</wsdl:message>
```

The parts of the **SetMissedCallNotificationEnabledSoapIn** WSDL message are listed in the following table.

Part name	Element/type	Description
parameters	<tns:SetMissedCallNotificationEnabled>	Specifies the information that is required to set whether missed call notifications are enabled for the user who is making the request.

3.1.4.11.1.2   SetMissedCallNotificationEnabledSoapOut Message

The **SetMissedCallNotificationEnabledSoapOut** WSDL message specifies the **SetMissedCallNotificationEnabled** operation response.

```
<wsdl:message name="SetMissedCallNotificationEnabledSoapOut">
  <wsdl:part name="parameters" element="tns:SetMissedCallNotificationEnabledResponse" />
</wsdl:message>
```

The parts of the **SetMissedCallNotificationEnabledSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
parameters	<tns:SetMissedCallNotificationEnabledResponse>	Specifies a response to a **SetMissedCallNotificationEnabled** operation request

3.1.4.11.2 Elements

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

Element	Description
<SetMissedCallNotificationEnabled>	Specifies the contents of a request to set whether missed call notifications are enabled for the user who is making the request.
<SetMissedCallNotificationEnabledResponse>	Specifies a response to a successful **SetMissedCallNotificationEnabled** operation request.

3.1.4.11.2.1 SetMissedCallNotificationEnabled Element

The <SetMissedCallNotificationEnabled> element specifies the contents of a request to set whether missed call notifications are enabled for the user who is making the request. This element MUST be present.

```
<xs:element name="SetMissedCallNotificationEnabled">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="status"
        type="s:boolean"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
status	s:boolean	Specifies a value that indicates whether to enable or disable missed call notifications for the user who is making the request. This element MUST be present. The **boolean** primitive type is specified in [XMLSCHEMA2].

3.1.4.11.2.2 SetMissedCallNotificationEnabledResponse Element

The <SetMissedCallNotificationEnabledResponse> element specifies a response to a successful **SetMissedCallNotificationEnabled** operation request. This element MUST be present if the **SetMissedCallNotificationEnabled** operation request is successful.

```
<xs:element name="SetMissedCallNotificationEnabledResponse">
  <xs:complexType />
</xs:element>
```

3.1.4.12 SetOofStatus Operation

The **SetOofStatus** operation sets a value that indicates whether the Out of Office (OOF) greeting is played to callers who reach the user's voice mail. The **SetOofStatus** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="SetOofStatus">
  <wsdl:input message="tns:SetOofStatusSoapIn" />
  <wsdl:output message="tns:SetOofStatusSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:SetOofStatusSoapIn	Specifies the SOAP message that initiates an attempt to set the OOF status so that the voice mail system plays either the OOF greeting or the regular greeting.

Response

Message Format	Description
tns:SetOofStatusSoapOut	Specifies the SOAP message that describes the disposition of an attempt to set OOF status for the Unified Messaging server.

If the operation succeeds, a <SetOofStatusResponse> element is returned.

If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure. A SOAP fault MUST be returned if the **SetOofStatusSoapIn** request XML is malformed. The structure of a SOAP fault for malformed request is specified in section 3.1.4.

3.1.4.12.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
SetOofStatusSoapIn	Specifies the request that sets the Out of Office (OOF) status for the Unified Messaging feature.
SetOofStatusSoapOut	Specifies the response to a request to set the OOF status.

3.1.4.12.1.1 SetOofStatusSoapIn Message

The **SetOofStatusSoapIn** WSDL message specifies the **SetOofStatus** operation request.

```
<wsdl:message name="SetOofStatusSoapIn">
  <wsdl:part name="parameters" element="tns:SetOofStatus" />
</wsdl:message>
```

The parts of the **SetOofStatusSoapIn** WSDL message are described in the following table.

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Part name	Element/type	Description
Parameters	<tns:SetOofStatus>	Specifies the information that is required to set whether the OOF greeting is enabled for the user who is making the request.

3.1.4.12.1.2 SetOofStatusSoapOut Message

The **SetOofStatusSoapOut** WSDL message specifies the **SetOofStatus** operation response.

```
<wsdl:message name="SetOofStatusSoapOut">
  <wsdl:part name="parameters" element="tns:SetOofStatusResponse" />
</wsdl:message>
```

The parts of the **SetOofStatusSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
parameters	<tns:SetOofStatusResponse>	Specifies a response to a **SetOofStatus** operation request.

3.1.4.12.2 Elements

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

Element	Description
<SetOofStatus>	Specifies the contents of a request to set whether the OOF greeting is enabled for the user who is making the request.
<SetOofStatusResponse>	Specifies a response to a **SetOofStatus** operation request.

3.1.4.12.2.1 SetOofStatus Element

The <SetOofStatus> element specifies the contents of a request to set whether the OOF greeting is enabled for the user who is making the request. This element MUST be present.

```
<xs:element name="SetOofStatus">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="status"
        type="s:boolean"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
status	s:boolean	Specifies a value that indicates whether the OOF greeting is played to callers. A text value of **true** indicates that the OOF greeting is played to callers. This element MUST be present. The **boolean** type is specified in [XMLSCHEMA2].

3.1.4.12.2.2 SetOofStatusResponse Element

The <SetOofStatusResponse> element specifies a response to a **SetOofStatus** operation request. This element MUST be present in a response to a successful **SetOofStatus** operation request.

```
<xs:element name="SetOofStatusResponse">
  <xs:complexType />
</xs:element>
```

3.1.4.13 SetPlayOnPhoneDialString Operation

The **SetPlayOnPhoneDialString** operation sets the default telephone number that is used in **PlayOnPhone** operation (section 3.1.4.8) and **PlayOnPhoneGreeting** operation (section 3.1.4.9) requests. The **SetPlayOnPhoneDialString** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="SetPlayOnPhoneDialString">
 <wsdl:input message="tns:SetPlayOnPhoneDialStringSoapIn" />
 <wsdl:output message="tns:SetPlayOnPhoneDialStringSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:SetPlayOnPhoneDialStringSoapIn	Specifies the SOAP message that initiates an attempt to set the default dial string.

Response

Message Format	Description
tns:SetPlayOnPhoneDialStringSoapOut	Specifies the SOAP message that describes the disposition of an attempt to set the default dial string.

If the operation succeeds, a <SetPlayOnPhoneDialStringResponse> element is returned.

If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure. A SOAP fault MUST be returned if the **SetPlayOnPhoneDialStringSoapIn** request XML is malformed. The structure of a SOAP fault for a malformed request is specified in section 3.1.4.

3.1.4.13.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
SetPlayOnPhoneDialStringSoapIn	Specifies the request that attempts to set the play on phone dial string.
SetPlayOnPhoneDialStringSoapOut	Specifies the response to a request to set the play on phone dial string.

3.1.4.13.1.1 SetPlayOnPhoneDialStringSoapIn Message

The **SetPlayOnPhoneDialStringSoapIn** WSDL message specifies the **SetPlayOnPhoneDialString** operation request.

```
<wsdl:message name="SetPlayOnPhoneDialStringSoapIn">
  <wsdl:part name="parameters" element="tns:SetPlayOnPhoneDialString"/>
</wsdl:message>
```

The parts of the **SetPlayOnPhoneDialStringSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
parameters	<tns: SetPlayOnPhoneDialString>	Specifies the information required to set the default telephone number to use in **PlayOnPhone** and **PlayOnPhoneGreeting** operation requests.

3.1.4.13.1.2 SetPlayOnPhoneDialStringSoapOut Message

The **SetPlayOnPhoneDialStringSoapOut** WSDL message specifies the **SetPlayOnPhoneDialString** operation response.

```
<wsdl:message name="SetPlayOnPhoneDialStringSoapOut">
  <wsdl:part name="parameters" element="tns:SetPlayOnPhoneDialStringResponse" />
</wsdl:message>
```

The parts of the **SetPlayOnPhoneDialStringSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
parameters	<tns:SetPlayOnPhoneDialStringResponse>	Specifies a response to a **SetPlayOnPhoneDialString** operation request.

3.1.4.13.2 Elements

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

Element	Description
<SetPlayOnPhoneDialString>	Specifies a request to store the default telephone number to use in **PlayOnPhone** and **PlayOnPhoneGreeting** operations.

Element	Description
<SetPlayOnPhoneDialStringResponse>	Specifies a response to a **SetPlayOnPhoneDialString** operation request.

3.1.4.13.2.1 SetPlayOnPhoneDialString Element

The <SetPlayOnPhoneDialString> element specifies a request to store the default telephone number to use in **PlayOnPhone** operation (section 3.1.4.8) and **PlayOnPhoneGreeting** operation (section 3.1.4.9) requests. This element MUST be present.

```
<xs:element name="SetPlayOnPhoneDialString">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="dialString"
        type="s:string"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
dialString	s:string	Specifies a telephone number that is used to set the default telephone number to use for **PlayOnPhone** and **PlayOnPhoneGreeting** operations. This element MUST be present. The **string** type is specified in [XMLSCHEMA2].

3.1.4.13.2.2 SetPlayOnPhoneDialStringResponse Element

The <SetPlayOnPhoneDialStringResponse> element specifies a response to a **SetPlayOnPhoneDialString** operation request. This element MUST be present.

```
<xs:element name="SetPlayOnPhoneDialStringResponse">
  <xs:complexType />
</xs:element>
```

3.1.4.14 SetTelephoneAccessFolderEmail Operation

The **SetTelephoneAccessFolderEmail** operation sets the mailbox folder from which the Unified Messaging server provides access to the user over the telephone. The **SetTelephoneAccessFolderEmail** operation uses the endpoint specified in [MS-OXDSCLI] section 2.2.3.2.5.32.

```
<wsdl:operation name="SetTelephoneAccessFolderEmail">
  <wsdl:input message="tns:SetTelephoneAccessFolderEmailSoapIn" />
  <wsdl:output message="tns:SetTelephoneAccessFolderEmailSoapOut" />
```

```
        </wsdl:operation>
```

Request

Message Format	Description
tns:SetTelephoneAccessFolderEmailSoapIn	Specifies the SOAP message that initiates an attempt to set the telephone access folder.

Response

Message Format	Description
tns:SetTelephoneAccessFolderEmailSoapOut	Specifies the SOAP message that describes the disposition of an attempt to set the telephone access folder.

If the operation succeeds, a <SetTelephoneAccessFolderEmailResponse> element is returned.

If the operation fails, a SOAP fault response, as specified in [SOAP1.1], is returned that contains information about the failure. A SOAP fault MUST be returned if the **SetTelephoneAccessFolderEmailSoapIn** request XML is malformed. The structure of a SOAP fault for a malformed request is specified section 3.1.4.

3.1.4.14.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

Message	Description
SetTelephoneAccessFolderEmailSoapIn	Specifies the request that sets the telephone access folder.
SetTelephoneAccessFolderEmailSoapOut	Specifies the response to a request that sets the telephone access folder.

3.1.4.14.1.1 SetTelephoneAccessFolderEmailSoapIn Message

The **SetTelephoneAccessFolderEmailSoapIn** WSDL message specifies the **SetTelephoneAccessFolderEmail** operation request.

```
<wsdl:message name="SetTelephoneAccessFolderEmailSoapIn">
  <wsdl:part name="parameters" element="tns:SetTelephoneAccessFolderEmail" />
</wsdl:message>
```

The parts of the **SetTelephoneAccessFolderEmailSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
parameters	<tns:SetTelephoneAccessFolderEmail>	Specifies the information that is required to set the folder that the Unified Messaging server will

Part name	Element/type	Description
		use to play e-mail messages over the telephone.

3.1.4.14.1.2 SetTelephoneAccessFolderEmailSoapOut Message

The **SetTelephoneAccessFolderEmailSoapOut** WSDL message specifies the
SetTelephoneAccessFolderEmail operation response.

```
<wsdl:message name="SetTelephoneAccessFolderEmailSoapOut">
  <wsdl:part name="parameters" element="tns:SetTelephoneAccessFolderEmailResponse" />
</wsdl:message>
```

The parts of the **SetTelephoneAccessFolderEmailSoapOut** WSDL message are described in the
following table.

Part name	Element/type	Description
parameters	<tns:SetTelephoneAccessFolderEmailResponse>	Specifies a response to a **SetTelephoneAccessFolderEmail** operation request.

3.1.4.14.2 Elements

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

Element	Description
<SetTelephoneAccessFolderEmail>	Specifies a request to set the folder that the Unified Messaging server will use to play items over the telephone.
<SetTelephoneAccessFolderEmailResponse>	Specifies a response to a **SetTelephoneAccessFolderEmail** operation request.

3.1.4.14.2.1 SetTelephoneAccessFolderEmail Element

The <SetTelephoneAccessFolderEmail> element specifies a request to set the folder that the Unified
Messaging server will use to play items over the telephone. This element MUST be present.

```
<xs:element name="SetTelephoneAccessFolderEmail">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="base64FolderId"
        type="s:string"
        maxOccurs="1"
        minOccurs="1"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Child Elements

Element	Type	Description
base64FolderId	s:string	Specifies the folder identifier of the target folder that will have items played over the phone. The folder identifier is an EntryID that is encoded as a base64 string ([RFC2045] section 6.8). This element MUST be present. The **string** type is specified in [XMLSCHEMA2].

The EntryID that represents the folder identifier that is used in the <base64FolderId> element can be retrieved by using the Mailbox Search Web Service protocol ([MS-OXWSSRCH]) and the Convert Item Identifier Web Service protocol ([MS-OXWSCVTID]). Specifically, the **FindFolder** operation ([MS-OXWSSRCH] section 3.1.4.1) can return a folder identifier that can then be converted into an EntryID by using the **ConvertId** operation ([MS-OXWSCVTID] section 3.1.4.1).

3.1.4.14.2.2 SetTelephoneAccessFolderEmailResponse Element

The <SetTelephoneAccessFolderEmailResponse> element specifies a response to a **SetTelephoneAccessFolderEmail** operation request. This element MUST be present in response to a successful request.

```
<xs:element name="SetTelephoneAccessFolderEmailResponse">
  <xs:complexType />
</xs:element>
```

3.1.5 Timer Events

The **Call_timeout** timer, as specified in section 3.1.2, causes the state machine to go from the **Disconnected** state to **Idle** state after the timer has expired. For details about the state model, see section 3.1.1.1.

3.1.6 Other Local Events

None.

3.2 UMWebServiceSoap Client Details

The client side of this protocol includes no operations. For details about the server-side operations, see section 3.1.

3.2.1 Abstract Data Model

All state information is maintained by the server side of this protocol, as specified in section 3.1.1.

3.2.2 Timers

None.

3.2.3 Initialization

The client requests for the **PlayOnPhone** operation (section 3.1.4.8), **PlayOnPhone2** operation (section 3.1.4.7), and **PlayOnPhoneGreeting** operation (section 3.1.4.9) pass arguments that initialize the server state machine, as specified in section 3.1.1.1. Specifically, the required item identifiers and dial strings MUST be sent to the server so that it can initialize a phone call and the

server state machine. The **PlayOnPhone** operation MUST send the item identifier in the <entryId> element and the phone number in the <DialString> element, as specified in section 3.1.4.8.2.1, which is used by the server to initialize the server state machine. The **PlayOnPhone2** operation MUST send the item identifier in the <ItemId> element and the phone number in the <DialString> element, as specified in section 3.1.4.7.2.1, which is used by the server to initialize the server state machine. The **PlayOnPhoneGreeting** operation MUST send the greeting type in the <GreetingType> element and the phone number in the <DialString> element, as specified in section 3.1.4.9.2.1, which is used by the server to initialize the server state machine.

3.2.4 Message Processing Events and Sequencing Rules

Three client protocol interaction sequences, which use context handles and a specific order of operations, are required for the stateful parts of this protocol to operate. Although the client does not maintain state, requests that are sent by the client are used by the server to initiate state that is maintained on the server, as specified in section 3.1.1.1. Actions by the clients can also affect and get server state.

The **PlayOnPhone** operation, as specified in section 3.1.4.8, initiates the playing of an item or voice mail on a phone by providing the item identifier, as specified by the <entryId> element (section 3.1.4.8.2.1), and target phone number, as specified by the <DialString> element (section 3.1.4.8.2.1), arguments in the request. The **PlayOnPhone** operation response contains a phone call context handle that MUST be used by subsequent requests made by the **GetCallInfo** operation (section 3.1.4.3) and the **Disconnect** operation (section 3.1.4.1). The phone call context handle that is returned by the **PlayOnPhone** operation is specified by the text value of the <PlayOnPhoneResponse> child element of the <PlayOnPhoneResponse> element, as specified in section 3.1.4.8.2.2.

The **GetCallInfo** operation MUST use the phone call context handle provided by the <PlayOnPhoneResponse> element of the **PlayOnPhone** operation. The **GetCallInfo** operation can then be used to create a request to get the target phone call's status.

The **Disconnect** operation MUST use the phone call context handle provided by <PlayOnPhoneResponse> element of the **PlayOnPhone** operation. The **Disconnect** operation can then be used to create a request to disconnect the target phone call.

The **PlayOnPhone2** operation, as specified in section 3.1.4.7, initiates playing an item or voice mail on a phone by providing the item identifier, as specified by the <ItemId> element (section 3.1.4.7.2.1), and target phone number, as specified by the <DialString> element (section 3.1.4.7.2.1). The **PlayOnPhone2** operation response contains a phone call context handle that MUST be used by subsequent requests made by the **GetPhoneCallInformation** operation (section 3.1.4.4) and the **DisconnectPhoneCall** operation (section 3.1.4.2). The phone call context handle that is returned by the **PlayOnPhone2** operation is specified by the **Id** attribute value of the <PhoneCallId> element, as specified in section 3.1.4.7.2.4.

The **GetPhoneCallInformation** operation MUST use the phone call context handle provided by the **Id** attribute value of the <PhoneCallId> element of the **PlayOnPhone2** operation. The **GetPhoneCallInformation** operation can then be used to create a request to get the target phone call's status.

The **DisconnectPhoneCall** operation MUST use the phone call context handle provided by the **Id** attribute value of the <PhoneCallId> element of the **PlayOnPhone2** operation. The **DisconnectPhoneCall** operation can then be used to create a request to disconnect the target phone call.

The **PlayOnPhoneGreeting** operation, as specified in section 3.1.4.9, initiates the playing of a greeting on a phone by providing the greeting type, as specified by the <GreetingType> element

(section 3.1.4.9.2.1), and the target phone number, as specified by the <DialString> element (section 3.1.4.9.2.1). The **PlayOnPhoneGreeting** operation response contains a phone call context handle that MUST be used by subsequent requests made by the **GetCallInfo** operation and the **Disconnect** operation. The phone call context handle returned by the **PlayOnPhoneGreeting** operation is specified by the text value of the <PlayOnPhoneGreetingResponse> child element of the <PlayOnPhoneGreetingResponse> element, as specified in section 3.1.4.9.2.2.

The **GetCallInfo** operation MUST use the phone call context handle provided by <PlayOnPhoneGreetingResponse> element of the **PlayOnPhoneGreetingResponse** operation. The **GetCallInfo** operation can then be used to create a request to get the target phone call's status.

The **Disconnect** operation MUST use the phone call context handle provided by <PlayOnPhoneGreetingResponse> element of the **PlayOnPhoneGreetingResponse** operation. The **Disconnect** operation can then be used to create a request to disconnect the target phone call.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

None.

4   Protocol Examples

4.1   Disconnect Operation

The following example shows how to form a request to disconnect a call that was previously initiated by a **PlayOnPhone** or **PlayOnPhoneGreeting** operation.

Before you can initiate the **Disconnect** operation, the following steps have to be performed:

1. Initiate a play-on-phone call by sending either a **PlayOnPhone** or **PlayOnPhoneGreeting** operation request (see examples in sections 4.6 and 4.10).

2. Save the <PlayOnPhoneResponse> element value in a temporary variable. This value is the telephone identifier that you will use when making the **Disconnect** operation request.

The following is the request to disconnect a call.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <Disconnect xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">

<CallId>NDEzYjEzNmMtZTE2Zi00NTJlLWI3YzctNDhkMTE3MDE3YjlmQGRmLWV1bS0wMS5leGNoYW5nZS5jb3JwLm1pY
3Jvc29mdC5jb20=</CallId>
    </Disconnect>
  </soap:Body>
</soap:Envelope>
```

The following is the response to a request to disconnect a call.

```
<?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:Body>
    <DisconnectResponse xmlns="http://schemas.microsoft.com/exchange/services/2006/messages"
/>
  </soap:Body>
</soap:Envelope>
```

4.2   DisconnectPhoneCall Operation

The following example shows how to form a request to disconnect a call that was previously initiated by the **PlayOnPhone2** operation, as specified in section 3.1.4.7.

Before the **Disconnect** operation can be initiated, the following steps have to be performed:

1. Initiate a play-on-phone call by sending a **PlayOnPhone2** request (see the example in section 4.8).

2. Save the phone call identifier that is returned in the response from the <PhoneCallId> element, as specified in section 3.1.4.7.2.4.

The following is the request to disconnect a call.

```xml
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
               xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
               xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
               xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
               xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2010" />
  </soap:Header>
  <soap:Body>
    <m:DisconnectPhoneCall>
      <m:PhoneCallId Id="OWVl4NWb3N29t"/>
    </m:DisconnectPhoneCall>
  </soap:Body>
</soap:Envelope>
```

The following is the response to a request to disconnect a call.

```xml
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="14"
                         MinorVersion="0"
                         MajorBuildNumber="639"
                         MinorBuildNumber="20"
                         Version="Exchange2010"
                         xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                         xmlns:xsd="http://www.w3.org/2001/XMLSchema"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <DisconnectPhoneCallResponse ResponseClass="Success"
 xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
    </DisconnectPhoneCallResponse>
  </s:Body>
</s:Envelope>
```

4.3 GetCallInfo Operation

The following example shows how to get information about a specified outbound call that was previously initiated through a **PlayOnPhone** or **PlayOnPhoneGreeting** operation.

Before the **GetCallInfo** operation can be initiated, the following steps have to be performed:

1. Initiate a play-on-phone call by sending either a **PlayOnPhone** or **PlayOnPhoneGreeting** request (see examples in sections 4.7 and 4.9).

2. Save the <PlayOnPhoneResponse> element text value in a temporary variable. This value is the text value of the <CallId> element that you will use when making the **GetCallInfo** request.

The following is the request to get information about an outbound call.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <GetCallInfo xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
<CallId>NDEzYjEzNmMtZTE2Zi00NTJlLWI3YzctNDhkMTE3MDE3YjlmQGRmLWV1bS0wMS5leGNoYW5nZS5jb3JwLm1pY
3Jvc29mdC5jb20=</CallId>
    </GetCallInfo>
  </soap:Body>
</soap:Envelope>
```

The following is the response to the request to get information about an outbound call.

```
<?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:Body>
    <GetCallInfoResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <GetCallInfoResponse>
        <CallState>Connected</CallState>
        <EventCause>None</EventCause>
      </GetCallInfoResponse>
    </GetCallInfoResponse>
  </soap:Body>
</soap:Envelope>
```

4.4 GetPhoneCallInformation Operation

The following example shows how to get phone call status information about a specified outbound call that was initiated through the **PlayOnPhone2** operation, as specified in section 3.1.4.7.

Before the **GetPhoneCallInformation** operation can be initiated, the following steps have to be performed:

1. Initiate a play-on-phone call by sending a **PlayOnPhone2** operation request (see the example in section 4.8).

2. Save the phone call identifier that is returned in the response from the <PhoneCallId> element, as specified in section 3.1.4.7.2.4.

The following is the request to get status information about an outbound call.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
               xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
               xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
               xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
               xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2010" />
  </soap:Header>
  <soap:Body>
    <m:GetPhoneCallInformation>
      <m:PhoneCallId Id="NDDY5uY29y9t"/>
```

```
      </m:GetPhoneCallInformation>
    </soap:Body>
  </soap:Envelope>
```

The following is the response to the request to get status information about an outbound call.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="14"
                         MinorVersion="0"
                         MajorBuildNumber="639"
                         MinorBuildNumber="20"
                         Version="Exchange2010"
                         xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                         xmlns:xsd="http://www.w3.org/2001/XMLSchema"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <GetPhoneCallInformationResponse ResponseClass="Success"

xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
      <m:PhoneCallInformation
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
        <t:PhoneCallState
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">Connected</t:PhoneCallSta
te>
        <t:ConnectionFailureCause
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">None</t:ConnectionFailure
Cause>
      </m:PhoneCallInformation>
    </GetPhoneCallInformationResponse>
  </s:Body>
</s:Envelope>
```

4.5 GetUMProperties Operation

The following example shows how to retrieve the list of Unified Messaging properties for the mailbox of the user who is making the request.

The following is the request to retrieve the list of properties.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <GetUMProperties xmlns="http://schemas.microsoft.com/exchange/services/2006/messages" />
  </soap:Body>
</soap:Envelope>
```

The following is the response to the request to retrieve the list of properties.

```
<?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:Body>
<GetUMPropertiesResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
 <GetUMPropertiesResponse>
  <OofStatus>false</OofStatus>
  <MissedCallNotificationEnabled>true</MissedCallNotificationEnabled>
  <PlayOnPhoneDialString>12345</PlayOnPhoneDialString>
  <TelephoneAccessNumbers>54321</TelephoneAccessNumbers>
<TelephoneAccessFolderEmail>AAAAAGsd2rbQLVtLobUGbrq/9IUBAEX2ikn/L8JJtI5WHI0FAW8AAAFXHhsAAA==<
/TelephoneAccessFolderEmail>
 </GetUMPropertiesResponse>
</GetUMPropertiesResponse>
</soap:Body>
</soap:Envelope>
```

4.6 IsUMEnabled Operation

The following example shows how to determine whether the mailbox of the user who is making the request is enabled for Unified Messaging.

The following is the request to determine whether a mailbox is enabled for Unified Messaging.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
<soap:Body>
  <IsUMEnabled xmlns="http://schemas.microsoft.com/exchange/services/2006/messages" />
</soap:Body>
</soap:Envelope>
```

The following is the response to the request to determine whether a mailbox is enabled for Unified Messaging.

```
<?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:Body>
  <IsUMEnabledResponse xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
    <IsUMEnabledResponse>true</IsUMEnabledResponse>
  </IsUMEnabledResponse>
</soap:Body>
</soap:Envelope>
```

4.7 PlayOnPhone Operation

The following example shows how to form a request to make an outbound call and play a message.

The following is the request to play a message.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <PlayOnPhone xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">

<entryId>AAAAAGsd2rbQLVtLobUGbrq/9IUHAEX2ikn/L8JJtI5WHI0FAW8AAAFXHhsAACxVpEl+KVVLl957wp//x6UA
GAetcDUAAA==</entryId>
      <DialString>12345</DialString>
    </PlayOnPhone>
  </soap:Body>
</soap:Envelope>
```

The following is the response to a request to play a message.

```
<?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:Body>
    <PlayOnPhoneResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">

<PlayOnPhoneResponse>NDEzYjEzNmMtZTE2Zi00NTJlLWI3YzctNDhkMTE3MDE3YjlmQGRmLWV1bS0wMS5leGNoYW5n
ZS5jb3JwLm1pY3Jvc29mdC5jb20=</PlayOnPhoneResponse>
    </PlayOnPhoneResponse>
  </soap:Body>
</soap:Envelope>
```

4.8   PlayOnPhone2 Operation

The following example shows how to form a request to play a message or voice mail on an outbound phone call.

The following is the request to play a message or voice mail on an outbound call.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
               xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
               xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
               xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
               xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2010" />
  </soap:Header>
  <soap:Body>
    <m:PlayOnPhone>
      <m:ItemId Id="AkAjzQTbY/i="/>
      <m:DialString>5555551212</m:DialString>
    </m:PlayOnPhone>
  </soap:Body>
</soap:Envelope>
```

The following is the response to a request to play a message or voice mail on an outbound call.

```xml
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="14"
                         MinorVersion="0"
                         MajorBuildNumber="639"
                         MinorBuildNumber="20"
                         Version="Exchange2010"
                         xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                         xmlns:xsd="http://www.w3.org/2001/XMLSchema"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <PlayOnPhoneResponse ResponseClass="Success"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
      <PhoneCallId Id="ZWMtWYtMY29t"/>
    </PlayOnPhoneResponse>
  </s:Body>
</s:Envelope>
```

4.9 PlayOnPhoneGreeting Example

The following example of a **PlayOnPhoneGreeting** operation request shows how to form a request to make an outbound call and play the normal greeting message on a telephone.

The following is the request to play a greeting on a telephone.

```xml
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <PlayOnPhoneGreeting
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <GreetingType>NormalCustom</GreetingType>
      <DialString>12345</DialString>
    </PlayOnPhoneGreeting>
  </soap:Body>
</soap:Envelope>
```

The following is the response to a request to play a greeting on a telephone.

```xml
<?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:Body>
    <PlayOnPhoneGreetingResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
<PlayOnPhoneGreetingResponse>MjA4MTQ5MmItMTBmZC00ZGFmLThiMzEtNDllNDJjM2Y3MjIxQGRmLWV1bS0wMS5l
eGNoYW5nZS5jb3JwLm1pY3Jvc29mdC5jb20=</PlayOnPhoneGreetingResponse>
```

```
        </PlayOnPhoneGreetingResponse>
    </soap:Body>
</soap:Envelope>
```

4.10 ResetPIN Operation

The following example shows how to form a request to reset the password of the user who is making the request.

The following is the request to reset the password.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <ResetPIN xmlns="http://schemas.microsoft.com/exchange/services/2006/messages" />
  </soap:Body>
</soap:Envelope>
```

The following is the response to the request to reset the password.

```
<?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:Body>
    <ResetPINResponse xmlns="http://schemas.microsoft.com/exchange/services/2006/messages" />
  </soap:Body>
</soap:Envelope>
```

4.11 SetMissedCallNotificationEnabled Operation

The following example shows how to form a request to enable missed-call notifications for the user who is making the request.

The following is the request to enable missed-call notifications.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <SetMissedCallNotificationEnabled
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <status>true</status>
    </SetMissedCallNotificationEnabled>
  </soap:Body>
</soap:Envelope>
```

The following is the response to the request to enable missed-call notifications.

```
<?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:Body>
    <SetMissedCallNotificationEnabledResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages" />
  </soap:Body>
</soap:Envelope>
```

4.12   SetOofStatus Operation

The **SetOofStatus** operation sets a value that indicates whether the Out of Office (OOF) greeting is enabled for the user who is making the request.

The following is the request to set the OOF greeting.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <SetOofStatus xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <status>true</status>
    </SetOofStatus>
  </soap:Body>
</soap:Envelope>
```

The following is the response to the request to set the OOF greeting.

```
<?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:Body>
    <SetOofStatusResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages" />
  </soap:Body>
</soap:Envelope>
```

4.13   SetPlayOnPhoneDialString Operation

The following example shows how to form a request to set the default telephone number for the user who is making the request.

The following is the request to set the default telephone number.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <SetPlayOnPhoneDialString
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <dialString>12345</dialString>
    </SetPlayOnPhoneDialString>
  </soap:Body>
</soap:Envelope>
```

The following is the response to the request to set the default telephone number.

```
<?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:Body>
    <SetPlayOnPhoneDialStringResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages" />
  </soap:Body>
</soap:Envelope>
```

4.14 SetTelephoneAccessFolderEmail Operation

The following example shows how to form a request to set the folder from which a Unified Messaging server will read back to the user over the telephone.

The following is the request to set the folder.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <SetTelephoneAccessFolderEmail
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">

<base64FolderID>AAAAAGsd2rbQLVtLobUGbrq/9IUBAEX2ikn/L8JJtI5WHI0FAW8AAAFXHhsAAA==</base64Folde
rID>
    </SetTelephoneAccessFolderEmail>
  </soap:Body>
</soap:Envelope>
```

The following is the response to the request to set the folder.

```
<?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:Body>
    <SetTelephoneAccessFolderEmailResponse
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages" />
  </soap:Body>
</soap:Envelope>
```

4.15 SOAP Fault

Any of the Voice Mail Settings Web Service protocol operations can return a SOAP fault. A SOAP fault element is used to carry error and/or status information within a **SOAP message** when there is API misuse or where there are configuration failures. The following example shows a SOAP fault message in response to an invalid **PlayOnPhone** operation request.

The following is an invalid **PlayOnPhone** operation request.

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <PlayOnPhone xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <entryId>INVALID_ENTRY_ID</entryId>
      <DialString>12345</DialString>
    </PlayOnPhone>
  </soap:Body>
</soap:Envelope>
```

The following is the SOAP fault response to the invalid **PlayOnPhone** operation request.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <soap:Fault>
      <faultcode>soap:Server</faultcode>
      <faultstring>The object identifier is not valid</faultstring>
      <faultactor>http://srv/unifiedmessaging/service.asmx</faultactor>
      <detail>
        <ExceptionType
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">InvalidObjectIdException
</ExceptionType>
      </detail>
    </soap:Fault>
  </soap:Body>
</soap:Envelope>
```

5   Security

5.1   Security Considerations for Implementers

The Voice Mail Settings Web Service protocol relies on the Web server that hosts the application to perform authentication.

As specified in section 1.4, use of the Voice Mail Settings Web Service protocol requires the use of secure communication via HTTPS [RFC2818].

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.

File name	Description	Section
MS-OXWUMS.wsdl	Contains the WSDL for the implementation of this protocol.	6.1
MS-OXWUMS-messages.xsd	Contains the XML schema message definitions that are used in this protocol.	6.2
MS-OXWUMS-types.xsd	Contains the XML schema type definitions that are used in this protocol.	6.3

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-OXWUMS-types.xsd or MS-OXWUMS-messages.xsd schemas have to be placed in the common folder with these files.

6.1   WSDL

This section contains the contents of the MS-OXWUMS.wsdl file.

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
   <wsdl:types>
      <s:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
         <s:include schemaLocation="MS-OXWUMS-messages.xsd"/>
      </s:schema>
   </wsdl:types>
   <wsdl:message name="IsUMEnabledSoapIn">
      <wsdl:part name="parameters" element="tns:IsUMEnabled"/>
   </wsdl:message>
   <wsdl:message name="IsUMEnabledSoapOut">
      <wsdl:part name="parameters" element="tns:IsUMEnabledResponse"/>
   </wsdl:message>
   <wsdl:message name="GetUMPropertiesSoapIn">
      <wsdl:part name="parameters" element="tns:GetUMProperties"/>
   </wsdl:message>
   <wsdl:message name="GetUMPropertiesSoapOut">
      <wsdl:part name="parameters" element="tns:GetUMPropertiesResponse"/>
   </wsdl:message>
   <wsdl:message name="SetOofStatusSoapIn">
      <wsdl:part name="parameters" element="tns:SetOofStatus"/>
   </wsdl:message>
   <wsdl:message name="SetOofStatusSoapOut">
      <wsdl:part name="parameters" element="tns:SetOofStatusResponse"/>
   </wsdl:message>
   <wsdl:message name="SetPlayOnPhoneDialStringSoapIn">
      <wsdl:part name="parameters" element="tns:SetPlayOnPhoneDialString"/>
   </wsdl:message>
```

```
<wsdl:message name="SetPlayOnPhoneDialStringSoapOut">
  <wsdl:part name="parameters" element="tns:SetPlayOnPhoneDialStringResponse"/>
</wsdl:message>
<wsdl:message name="SetTelephoneAccessFolderEmailSoapIn">
  <wsdl:part name="parameters" element="tns:SetTelephoneAccessFolderEmail"/>
</wsdl:message>
<wsdl:message name="SetTelephoneAccessFolderEmailSoapOut">
  <wsdl:part name="parameters" element="tns:SetTelephoneAccessFolderEmailResponse"/>
</wsdl:message>
<wsdl:message name="SetMissedCallNotificationEnabledSoapIn">
  <wsdl:part name="parameters" element="tns:SetMissedCallNotificationEnabled"/>
</wsdl:message>
<wsdl:message name="SetMissedCallNotificationEnabledSoapOut">
  <wsdl:part name="parameters" element="tns:SetMissedCallNotificationEnabledResponse"/>
</wsdl:message>
<wsdl:message name="ResetPINSoapIn">
  <wsdl:part name="parameters" element="tns:ResetPIN"/>
</wsdl:message>
<wsdl:message name="ResetPINSoapOut">
  <wsdl:part name="parameters" element="tns:ResetPINResponse"/>
</wsdl:message>
<wsdl:message name="PlayOnPhoneSoapIn">
  <wsdl:part name="parameters" element="tns:PlayOnPhone"/>
</wsdl:message>
<wsdl:message name="PlayOnPhoneSoapOut">
  <wsdl:part name="parameters" element="tns:PlayOnPhoneResponse"/>
</wsdl:message>
<wsdl:message name="GetCallInfoSoapIn">
  <wsdl:part name="parameters" element="tns:GetCallInfo"/>
</wsdl:message>
<wsdl:message name="GetCallInfoSoapOut">
  <wsdl:part name="parameters" element="tns:GetCallInfoResponse"/>
</wsdl:message>
<wsdl:message name="DisconnectSoapIn">
  <wsdl:part name="parameters" element="tns:Disconnect"/>
</wsdl:message>
<wsdl:message name="DisconnectSoapOut">
  <wsdl:part name="parameters" element="tns:DisconnectResponse"/>
</wsdl:message>
<wsdl:message name="PlayOnPhoneGreetingSoapIn">
  <wsdl:part name="parameters" element="tns:PlayOnPhoneGreeting"/>
</wsdl:message>
<wsdl:message name="PlayOnPhoneGreetingSoapOut">
  <wsdl:part name="parameters" element="tns:PlayOnPhoneGreetingResponse"/>
</wsdl:message>
<wsdl:message name="DisconnectPhoneCallSoapIn">
  <wsdl:part name="request" element="tns:DisconnectPhoneCall"/>
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
  <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="DisconnectPhoneCallSoapOut">
  <wsdl:part name="DisconnectPhoneCallResult" element="tns:DisconnectPhoneCallResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="GetPhoneCallInformationSoapIn">
  <wsdl:part name="request" element="tns:GetPhoneCallInformation"/>
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
  <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
```

```
        <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="GetPhoneCallInformationSoapOut">
        <wsdl:part name="GetPhoneCallInformationResult"
 element="tns:GetPhoneCallInformationResponse"/>
        <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:message name="PlayOnPhoneSoapIn2">
        <wsdl:part name="request" type="tns:PlayOnPhone2Type"/>
        <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
        <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
        <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="PlayOnPhoneSoapOut2">
        <wsdl:part name="PlayOnPhoneResult" type="tns:PlayOnPhoneResponse2Type"/>
        <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:portType name="UMWebServiceSoap">
        <wsdl:operation name="IsUMEnabled">
            <wsdl:input message="tns:IsUMEnabledSoapIn"/>
            <wsdl:output message="tns:IsUMEnabledSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="GetUMProperties">
            <wsdl:input message="tns:GetUMPropertiesSoapIn"/>
            <wsdl:output message="tns:GetUMPropertiesSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="SetOofStatus">
            <wsdl:input message="tns:SetOofStatusSoapIn"/>
            <wsdl:output message="tns:SetOofStatusSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="SetPlayOnPhoneDialString">
            <wsdl:input message="tns:SetPlayOnPhoneDialStringSoapIn"/>
            <wsdl:output message="tns:SetPlayOnPhoneDialStringSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="SetTelephoneAccessFolderEmail">
            <wsdl:input message="tns:SetTelephoneAccessFolderEmailSoapIn"/>
            <wsdl:output message="tns:SetTelephoneAccessFolderEmailSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="SetMissedCallNotificationEnabled">
            <wsdl:input message="tns:SetMissedCallNotificationEnabledSoapIn"/>
            <wsdl:output message="tns:SetMissedCallNotificationEnabledSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="ResetPIN">
            <wsdl:input message="tns:ResetPINSoapIn"/>
            <wsdl:output message="tns:ResetPINSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="PlayOnPhone">
            <wsdl:input message="tns:PlayOnPhoneSoapIn"/>
            <wsdl:output message="tns:PlayOnPhoneSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="GetCallInfo">
            <wsdl:input message="tns:GetCallInfoSoapIn"/>
            <wsdl:output message="tns:GetCallInfoSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="Disconnect">
            <wsdl:input message="tns:DisconnectSoapIn"/>
            <wsdl:output message="tns:DisconnectSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="PlayOnPhoneGreeting">
```

```
        <wsdl:input message="tns:PlayOnPhoneGreetingSoapIn"/>
        <wsdl:output message="tns:PlayOnPhoneGreetingSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="DisconnectPhoneCall">
        <wsdl:input message="tns:DisconnectPhoneCallSoapIn"/>
        <wsdl:output message="tns:DisconnectPhoneCallSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetPhoneCallInformation">
        <wsdl:input message="tns:GetPhoneCallInformationSoapIn"/>
        <wsdl:output message="tns:GetPhoneCallInformationSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="PlayOnPhone2">
        <wsdl:input message="tns:PlayOnPhoneSoapIn2"/>
        <wsdl:output message="tns:PlayOnPhoneSoapOut2"/>
    </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="UMWebServiceSoap" type="tns:UMWebServiceSoap">
    <wsdl:documentation>
        <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.1" xmlns:wsi="http://ws-
i.org/schemas/conformanceClaim/"/>
    </wsdl:documentation>
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="IsUMEnabled">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/IsUMEnabled"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetUMProperties">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetUMProperties"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="SetOofStatus">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SetOofStatus"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="SetPlayOnPhoneDialString">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SetPlayOnPhoneDialSt
ring" style="document"/>
        <wsdl:input>
```

```
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="SetTelephoneAccessFolderEmail">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SetTelephoneAccessFo
lderEmail" style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="SetMissedCallNotificationEnabled">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SetMissedCallNotific
ationEnabled" style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ResetPIN">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/ResetPIN"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="PlayOnPhone">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/PlayOnPhone"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCallInfo">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetCallInfo"
style="document"/>
        <wsdl:input>
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal"/>
        </wsdl:output>
```

```
          </wsdl:operation>
          <wsdl:operation name="Disconnect">
             <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/Disconnect"
style="document"/>
             <wsdl:input>
                <soap:body use="literal"/>
             </wsdl:input>
             <wsdl:output>
                <soap:body use="literal"/>
             </wsdl:output>
          </wsdl:operation>
          <wsdl:operation name="PlayOnPhoneGreeting">
             <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/PlayOnPhoneGreeting"
style="document"/>
             <wsdl:input>
                <soap:body use="literal"/>
             </wsdl:input>
             <wsdl:output>
                <soap:body use="literal"/>
             </wsdl:output>
          </wsdl:operation>
          <wsdl:operation name="PlayOnPhone2">
             <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/PlayOnPhone"/>
             <wsdl:input>
                <soap:body parts="request" use="literal"/>
                <soap:header message="tns:PlayOnPhoneSoapIn2" part="Impersonation"
use="literal"/>
                <soap:header message="tns:PlayOnPhoneSoapIn2" part="MailboxCulture"
use="literal"/>
                <soap:header message="tns:PlayOnPhoneSoapIn2" part="RequestVersion"
use="literal"/>
             </wsdl:input>
             <wsdl:output>
                <soap:body parts="PlayOnPhoneResult" use="literal"/>
                <soap:header message="tns:PlayOnPhoneSoapOut2" part="ServerVersion"
use="literal"/>
             </wsdl:output>
          </wsdl:operation>
          <wsdl:operation name="GetPhoneCallInformation">
             <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetPhoneCallInformat
ion"/>
             <wsdl:input>
                <soap:body parts="request" use="literal"/>
                <soap:header message="tns:GetPhoneCallInformationSoapIn" part="Impersonation"
use="literal"/>
                <soap:header message="tns:GetPhoneCallInformationSoapIn" part="MailboxCulture"
use="literal"/>
                <soap:header message="tns:GetPhoneCallInformationSoapIn" part="RequestVersion"
use="literal"/>
             </wsdl:input>
             <wsdl:output>
                <soap:body parts="GetPhoneCallInformationResult" use="literal"/>
                <soap:header message="tns:GetPhoneCallInformationSoapOut" part="ServerVersion"
use="literal"/>
             </wsdl:output>
          </wsdl:operation>
```

```
            <wsdl:operation name="DisconnectPhoneCall">
                <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DisconnectPhoneCall"
/>
                <wsdl:input>
                    <soap:body parts="request" use="literal"/>
                    <soap:header message="tns:DisconnectPhoneCallSoapIn" part="Impersonation"
use="literal"/>
                    <soap:header message="tns:DisconnectPhoneCallSoapIn" part="MailboxCulture"
use="literal"/>
                    <soap:header message="tns:DisconnectPhoneCallSoapIn" part="RequestVersion"
use="literal"/>
                </wsdl:input>
                <wsdl:output>
                    <soap:body parts="DisconnectPhoneCallResult" use="literal"/>
                    <soap:header message="tns:DisconnectPhoneCallSoapOut" part="ServerVersion"
use="literal"/>
                </wsdl:output>
            </wsdl:operation>
        </wsdl:binding>
</wsdl:definitions>
```

6.2 Messages Schema

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

MS-OXWUMS-messages.xsd includes the file listed in the following table. To operate correctly, this file has to be present in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

File name	Defining specification
MS-OXWSCDATA-messages.xsd	[MS-OXWSCDATA] section 6.2.
MS-OXWUMS-types.xsd	Section 6.3

```
<?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" xmlns:s="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-OXWUMS-types.xsd"/>
    <s:element name="IsUMEnabled">
        <s:complexType/>
    </s:element>
    <s:element name="IsUMEnabledResponse">
        <s:complexType>
            <s:sequence>
                <s:element minOccurs="1" maxOccurs="1" name="IsUMEnabledResponse"
type="s:boolean"/>
            </s:sequence>
        </s:complexType>
```

```
   </s:element>
   <s:element name="GetUMProperties">
      <s:complexType/>
   </s:element>
   <s:element name="GetUMPropertiesResponse">
      <s:complexType>
         <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetUMPropertiesResponse"
 type="tns:UMProperties"/>
         </s:sequence>
      </s:complexType>
   </s:element>
   <s:complexType name="UMProperties">
      <s:sequence>
         <s:element minOccurs="1" maxOccurs="1" name="OofStatus" type="s:boolean"/>
         <s:element minOccurs="1" maxOccurs="1" name="MissedCallNotificationEnabled"
 type="s:boolean"/>
         <s:element minOccurs="0" maxOccurs="1" name="PlayOnPhoneDialString"
 type="s:string"/>
         <s:element minOccurs="0" maxOccurs="1" name="TelephoneAccessNumbers"
 type="s:string"/>
         <s:element minOccurs="0" maxOccurs="1" name="TelephoneAccessFolderEmail"
 type="s:string"/>
      </s:sequence>
   </s:complexType>
   <s:element name="SetOofStatus">
      <s:complexType>
         <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="status" type="s:boolean"/>
         </s:sequence>
      </s:complexType>
   </s:element>
   <s:element name="SetOofStatusResponse">
      <s:complexType/>
   </s:element>
   <s:element name="SetPlayOnPhoneDialString">
      <s:complexType>
         <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="dialString" type="s:string"/>
         </s:sequence>
      </s:complexType>
   </s:element>
   <s:element name="SetPlayOnPhoneDialStringResponse">
      <s:complexType/>
   </s:element>
   <s:element name="SetTelephoneAccessFolderEmail">
      <s:complexType>
         <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="base64FolderId" type="s:string"/>
         </s:sequence>
      </s:complexType>
   </s:element>
   <s:element name="SetTelephoneAccessFolderEmailResponse">
      <s:complexType/>
   </s:element>
   <s:element name="SetMissedCallNotificationEnabled">
      <s:complexType>
         <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="status" type="s:boolean"/>
```

```
            </s:sequence>
         </s:complexType>
      </s:element>
      <s:element name="SetMissedCallNotificationEnabledResponse">
         <s:complexType/>
      </s:element>
      <s:element name="ResetPIN">
         <s:complexType/>
      </s:element>
      <s:element name="ResetPINResponse">
         <s:complexType/>
      </s:element>
      <s:element name="PlayOnPhone">
         <s:complexType>
            <s:sequence>
               <s:element minOccurs="0" maxOccurs="1" name="entryId" type="s:string"/>
               <s:element minOccurs="0" maxOccurs="1" name="DialString" type="s:string"/>
            </s:sequence>
         </s:complexType>
      </s:element>
      <s:element name="PlayOnPhoneResponse">
         <s:complexType>
            <s:sequence>
               <s:element minOccurs="0" maxOccurs="1" name="PlayOnPhoneResponse"
 type="s:string"/>
            </s:sequence>
         </s:complexType>
      </s:element>
      <s:element name="GetCallInfo">
         <s:complexType>
            <s:sequence>
               <s:element minOccurs="0" maxOccurs="1" name="CallId" type="s:string"/>
            </s:sequence>
         </s:complexType>
      </s:element>
      <s:element name="GetCallInfoResponse">
         <s:complexType>
            <s:sequence>
               <s:element minOccurs="0" maxOccurs="1" name="GetCallInfoResponse"
 type="tns:UMCallInfo"/>
            </s:sequence>
         </s:complexType>
      </s:element>
      <s:complexType name="UMCallInfo">
         <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="CallState" type="tns:UMCallState"/>
            <s:element minOccurs="1" maxOccurs="1" name="EventCause" type="tns:UMEventCause"/>
         </s:sequence>
      </s:complexType>
      <s:simpleType name="UMCallState">
         <s:restriction base="s:string">
            <s:enumeration value="Idle"/>
            <s:enumeration value="Connecting"/>
            <s:enumeration value="Alerted"/>
            <s:enumeration value="Connected"/>
            <s:enumeration value="Disconnected"/>
            <s:enumeration value="Incoming"/>
            <s:enumeration value="Transferring"/>
            <s:enumeration value="Forwarding"/>
```

```
            </s:restriction>
        </s:simpleType>
        <s:simpleType name="UMEventCause">
            <s:restriction base="s:string">
                <s:enumeration value="None"/>
                <s:enumeration value="UserBusy"/>
                <s:enumeration value="NoAnswer"/>
                <s:enumeration value="Unavailable"/>
                <s:enumeration value="Other"/>
            </s:restriction>
        </s:simpleType>
        <s:element name="Disconnect">
            <s:complexType>
                <s:sequence>
                    <s:element minOccurs="0" maxOccurs="1" name="CallId" type="s:string"/>
                </s:sequence>
            </s:complexType>
        </s:element>
        <s:element name="DisconnectResponse">
            <s:complexType/>
        </s:element>
        <s:element name="PlayOnPhoneGreeting">
            <s:complexType>
                <s:sequence>
                    <s:element minOccurs="1" maxOccurs="1" name="GreetingType"
  type="tns:UMGreetingType"/>
                    <s:element minOccurs="0" maxOccurs="1" name="DialString" type="s:string"/>
                </s:sequence>
            </s:complexType>
        </s:element>
        <s:simpleType name="UMGreetingType">
            <s:restriction base="s:string">
                <s:enumeration value="NormalCustom"/>
                <s:enumeration value="OofCustom"/>
            </s:restriction>
        </s:simpleType>
        <s:element name="PlayOnPhoneGreetingResponse">
            <s:complexType>
                <s:sequence>
                    <s:element minOccurs="0" maxOccurs="1" name="PlayOnPhoneGreetingResponse"
  type="s:string"/>
                </s:sequence>
            </s:complexType>
        </s:element>
        <xs:complexType name="DisconnectPhoneCallResponseMessageType">
            <xs:complexContent>
                <xs:extension base="m:ResponseMessageType"/>
            </xs:complexContent>
        </xs:complexType>
        <xs:complexType name="DisconnectPhoneCallType">
            <xs:complexContent>
                <xs:extension base="m:BaseRequestType">
                    <xs:sequence>
                        <xs:element name="PhoneCallId" type="t:PhoneCallIdType" minOccurs="1"
  maxOccurs="1"/>
                    </xs:sequence>
                </xs:extension>
            </xs:complexContent>
        </xs:complexType>
```

```
    <xs:element name="DisconnectPhoneCall" type="m:DisconnectPhoneCallType"/>
    <xs:element name="DisconnectPhoneCallResponse"
type="m:DisconnectPhoneCallResponseMessageType"/>
    <xs:complexType name="GetPhoneCallInformationType">
        <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
                <xs:sequence>
                    <xs:element name="PhoneCallId" type="t:PhoneCallIdType" minOccurs="1"
maxOccurs="1"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="GetPhoneCallInformationResponseMessageType">
        <xs:complexContent>
            <xs:extension base="m:ResponseMessageType">
                <xs:sequence>
                    <xs:element name="PhoneCallInformation" type="t:PhoneCallInformationType"
minOccurs="0" maxOccurs="1"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
    <xs:element name="GetPhoneCallInformation" type="m:GetPhoneCallInformationType"/>
    <xs:element name="GetPhoneCallInformationResponse"
type="m:GetPhoneCallInformationResponseMessageType"/>
    <xs:complexType name="PlayOnPhoneType">
        <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
                <xs:sequence>
                    <xs:element name="ItemId" type="t:ItemIdType" minOccurs="1" maxOccurs="1"/>
                    <xs:element name="DialString" type="xs:string" minOccurs="1" maxOccurs="1"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="PlayOnPhone2Type">
        <xs:sequence>
            <xs:element name="PlayOnPhone" type="m:PlayOnPhoneType"/>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="PlayOnPhoneResponseMessageType">
        <xs:complexContent>
            <xs:extension base="m:ResponseMessageType">
                <xs:sequence>
                    <xs:element name="PhoneCallId" type="t:PhoneCallIdType" minOccurs="0"
maxOccurs="1"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="PlayOnPhoneResponse2Type">
        <xs:sequence>
            <xs:element name="PlayOnPhoneResponse" type="m:PlayOnPhoneResponseMessageType"/>
        </xs:sequence>
    </xs:complexType>
</xs:schema>
```

6.3 Types Schema

This section contains the contents of the MS-OXWUMS-types.xsd file.

```xml
<?xml version="1.0" encoding="utf-8"?>
<xs:schema 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/types"
elementFormDefault="qualified" version="Exchange2010" id="types">
   <xs:complexType name="PhoneCallIdType">
      <xs:attribute name="Id" type="xs:string" use="required"/>
   </xs:complexType>
   <xs:simpleType name="ConnectionFailureCauseType">
      <xs:restriction base="xs:string">
         <xs:enumeration value="None"/>
         <xs:enumeration value="UserBusy"/>
         <xs:enumeration value="NoAnswer"/>
         <xs:enumeration value="Unavailable"/>
         <xs:enumeration value="Other"/>
      </xs:restriction>
   </xs:simpleType>
   <xs:simpleType name="PhoneCallStateType">
      <xs:restriction base="xs:string">
         <xs:enumeration value="Idle"/>
         <xs:enumeration value="Connecting"/>
         <xs:enumeration value="Alerted"/>
         <xs:enumeration value="Connected"/>
         <xs:enumeration value="Disconnected"/>
         <xs:enumeration value="Incoming"/>
         <xs:enumeration value="Transferring"/>
         <xs:enumeration value="Forwarding"/>
      </xs:restriction>
   </xs:simpleType>
   <xs:complexType name="PhoneCallInformationType">
      <xs:sequence>
         <xs:element name="PhoneCallState" type="t:PhoneCallStateType" minOccurs="1"
maxOccurs="1"/>
         <xs:element name="ConnectionFailureCause" type="t:ConnectionFailureCauseType"
minOccurs="1" maxOccurs="1"/>
         <xs:element name="SIPResponseText" type="xs:string" minOccurs="0" maxOccurs="1"/>
         <xs:element name="SIPResponseCode" type="xs:int" minOccurs="0" maxOccurs="1"/>
      </xs:sequence>
   </xs:complexType>
</xs:schema>
```

7 Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products:

- 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. 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 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 3.1.4.2: Exchange 2007 and Office Outlook 2007 do not implement the **DisconnectPhoneCall** operation

<2> Section 3.1.4.4: Exchange 2007 and Office Outlook 2007 do not implement the **GetPhoneCallInformation** operation.

<3> Section 3.1.4.6: Office Outlook 2007 and Outlook 2010 clients do not implement the **IsUMEnabled** operation.

<4> Section 3.1.4.7: Exchange 2007 and Office Outlook 2007 do not implement the PlayOnPhone2 operation.

8   Change Tracking

This section identifies changes that were made to the [MS-OXWUMS] protocol document between the August 2010 and November 2010 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements or functionality.

- An extensive rewrite, addition, or deletion of major portions of content.

- Changes made for template compliance.

- Removal of a document from the documentation set.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **Editorial** means that the language and formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

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

- New content added.

- Content updated.

- Content removed.

- New product behavior note added.

- Product behavior note updated.

- Product behavior note removed.

- New protocol syntax added.

- Protocol syntax updated.

- Protocol syntax removed.

- New content added due to protocol revision.

- Content updated due to protocol revision.

- Content removed due to protocol revision.

- New protocol syntax added due to protocol revision.

- Protocol syntax updated due to protocol revision.

- Protocol syntax removed due to protocol revision.

- New content added for template compliance.

- Content updated for template compliance.

- Content removed for template compliance.

- Obsolete document removed.

Editorial changes are always classified with the change 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.

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

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change Type
3.1 UMWebServiceSoap Server Details	Updated the content of the section.	N	Content updated.

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