[MS-OXWSGTRM]:

Get Rooms List Web Service Protocol

development obligations or any other costs as a result of relying on this preliminary documentation, you do so at your own risk.

Revision Summary

Date	Revision History	Revision Class	Comments
7/15/2009	1.0	Major	Initial Availability.
11/4/2009	1.1.0	Minor	Updated the technical content.
2/10/2010	1.1.0	None	Version 1.1.0 release
5/5/2010	1.1.1	Editorial	Revised and edited the technical content.
8/4/2010	1.2	Minor	Clarified the meaning of the technical content.
11/3/2010	1.2	No change	No changes to the meaning, language, or formatting of the technical content.
3/18/2011	1.2	No change	No changes to the meaning, language, and formatting of the technical content.
8/5/2011	1.3	Minor	Clarified the meaning of the technical content.
10/7/2011	2.0	Major	Significantly changed the technical content.
1/20/2012	3.0	Major	Significantly changed the technical content.
4/27/2012	3.0	No Change	No changes to the meaning, language, or formatting of the technical content.
7/16/2012	3.1	Minor	Clarified the meaning of the technical content.
10/8/2012	3.2	Minor	Clarified the meaning of the technical content.
2/11/2013	3.2	No Change	No changes to the meaning, language, or formatting of the technical content.
7/26/2013	4.0	Major	Significantly changed the technical content.
11/18/2013	4.0	No Change	No changes to the meaning, language, or formatting of the technical content.
2/10/2014	4.0	No Change	No changes to the meaning, language, or formatting of the technical content.
4/30/2014	4.1	Minor	Clarified the meaning of the technical content.
7/31/2014	4.1	No Change	No changes to the meaning, language, or formatting of the technical content.
10/30/2014	4.2	Minor	Clarified the meaning of the technical content.
3/16/2015	5.0	Major	Significantly changed the technical content.
5/26/2015	5.0	No Change	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1 Introduction

The Get Rooms List Web Service Protocol enables clients to retrieve information about meeting rooms from the server.

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

1.1 Glossary

The following terms are specific to this document:

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

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

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

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

SOAP: A lightweight protocol for exchanging structured information in a decentralized, distributed environment. **SOAP** uses **XML** technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation-specific semantics. SOAP 1.2 supersedes SOAP 1.1. See [SOAP1.2-1/2003].

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

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

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

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

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

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

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

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

XML: The Extensible Markup Language, as described in [XML1.0].

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

XML namespace prefix: An abbreviated form of an **XML namespace**, as described in [XML].

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

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

1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the Errata.

1.2.1 Normative References

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

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

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

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

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

[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", May 2000, http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

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

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

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

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

1.2.2 Informative References

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

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

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

1.3 Overview

This protocol enables clients to retrieve information about meeting rooms from the server. Clients can use the data types and operations described by this protocol to retrieve the collection of room lists that exist within the server organization, and to retrieve the collection of rooms that belong to a specific room list.

1.4 Relationship to Other Protocols

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

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

This protocol uses SOAP over **HTTP**, as described in [RFC2616], and SOAP over **HTTPS**, as described in [RFC2818], as shown in the following layering diagram.

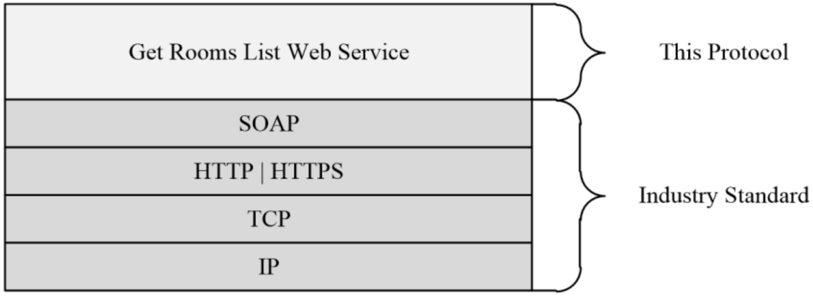

Figure 1: This protocol in relation to other protocols

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

1.5 Prerequisites/Preconditions

The endpoint that is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI], is required to form the HTTP request to the **Web server** that hosts this protocol. To retrieve the endpoint as described in either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol or the Autodiscover Publishing and Lookup Protocol, the client needs to have a valid mail-enabled account. The operations that this protocol defines cannot be accessed unless the correct endpoint is identified in the HTTP Web requests that target this protocol.

1.6 Applicability Statement

This protocol is applicable to client applications that use Web services to retrieve information about meeting rooms for use in scheduling meetings.

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses SOAP 1.1, as described in section 2.1 and in [SOAP1.1].
- **Protocol Versions:** This protocol specifies only one **WSDL port type** version. The WSDL version of the request is identified by using the **RequestServerVersion** element, as described in [MS-OXWSCDATA] section 2.2.3.11, and the version of the server responding to the request is identified by using the **ServerVersionInfo** element, as described in [MS-OXWSCDATA] section 2.2.3.12.
- **Security and Authentication Methods:** This protocol relies on the Web server that is hosting it to perform authentication.
- **Localization:** This protocol includes text strings in various messages.
- **Capability Negotiation:** This protocol does not support version negotiation.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

In the following sections, the schema definition might differ from the processing rules imposed by the protocol. The **WSDL** in this specification provides a base description of the protocol. The schema in this specification provides a base description of the message syntax. The text that specifies the WSDL and schema might specify restrictions that reflect actual protocol behavior. For example, the schema definition might allow for an element to be **empty**, **null**, or **not present** but the behavior of the protocol as specified restricts the same elements to being **non-empty**, **not null**, or **present**.

2.1 Transport

Messages are transported by using SOAP version 1.1, as specified in [SOAP1.1].

This protocol relies on the Web server that hosts the application to perform authentication. The protocol MUST support SOAP over HTTP, as specified in [RFC2616], and SHOULD support SOAP over HTTPS, as specified in [RFC2818].

2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as defined in [XMLSCHEMA1] and [XMLSCHEMA2], and WSDL, as defined in [WSDL].

2.2.1 Namespaces

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

Prefix	Namespace URI	Reference
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
tns	http://schemas.microsoft.com/exchange/services/2006/messages	
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1], [XMLSCHEMA2]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
t	http://schemas.microsoft.com/exchange/services/2006/types	
m	http://schemas.microsoft.com/exchange/services/2006/messages	
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1], [XMLSCHEMA2]

2.2.2 Messages

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

2.2.3 Elements

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

2.2.4 Complex Types

This specification does not define any common XML schema complex type definitions.

2.2.5 Simple Types

This specification does not define any common XML schema simple type definitions.

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

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

3.1 ExchangeServicePortType Server Details

This protocol defines a single port type with two operations. These operations enable client implementations to retrieve a collection of rooms or room lists from the server.

3.1.1 Abstract Data Model

None.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

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

Operation name	Description
GetRoomLists (section 3.1.4.1)	Retrieves a collection of all room lists in the organization.
GetRooms (section 3.1.4.2)	Retrieves a collection of all rooms in the specified room list in the organization.

3.1.4.1 GetRoomLists Operation

The **GetRoomLists** operation retrieves a collection of all room lists in the organization.

The following is the WSDL port type specification for the **GetRoomLists** operation.

```
<wsdl:operation name="GetRoomLists">
    <wsdl:input message="tns:GetRoomListsSoapIn"/>
    <wsdl:output message="tns:GetRoomListsSoapOut"/>
</wsdl:operation>
```

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

```
<wsdl:operation name="GetRoomLists">
```

```
    <soap:operation 
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetRoomLists"/>
    <wsdl:input>
        <soap:body parts="GetRoomListsRequest" use="literal"/>
        <soap:header message="tns:GetRoomListsSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:GetRoomListsSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:GetRoomListsSoapIn" part="RequestVersion" use="literal"/>
    </wsdl:input>
    <wsdl:output>
        <soap:body parts="GetRoomListsResult" use="literal"/>
        <soap:header message="tns:GetRoomListsSoapOut" part="ServerVersion" use="literal"/>
    </wsdl:output>
</wsdl:operation>
```

3.1.4.1.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to the **GetRoomLists** operation, as specified in section 3.1.4.1.

Message name	Description
GetRoomListsSoapIn (section 3.1.4.1.1.1)	Specifies the **SOAP message** that requests a collection of all room lists in the organization.
GetRoomListsSoapOut (section 3.1.4.1.1.2)	Specifies the SOAP message returned by the server in the response.

3.1.4.1.1.1 tns:GetRoomListsSoapIn Message

The **GetRoomListsSoapIn** WSDL message specifies the **GetRoomLists** operation request to retrieve a collection of all room lists in the organization. For more details about the **GetRoomLists** operation, see section 3.1.4.1.

```
<wsdl:message name="GetRoomListsSoapIn">
    <wsdl:part name="GetRoomListsRequest" element="tns:GetRoomLists"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
GetRoomListsRequest	**tns:GetRoomLists** (section 3.1.4.1.2.1)	Specifies the **SOAP body** of the request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.3.3)	Specifies a **SOAP header** that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.3.7)	Specifies a SOAP header that identifies the culture to use for accessing the **mailbox**.

Part name	Element/type	Description
		The cultures are defined by [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a SOAP header that identifies the schema version for the **GetRoomLists** operation request.

3.1.4.1.1.2 tns:GetRoomListsSoapOut Message

The **GetRoomListsSoapOut** WSDL message specifies the server response to the **GetRoomLists** operation request to retrieve a collection of all room lists in the organization. For more details about the **GetRoomLists** operation, see section 3.1.4.1.

```
    <wsdl:message name="GetRoomListsSoapOut">
        <wsdl:part name="GetRoomListsResult" element="tns:GetRoomListsResponse"/>
        <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
```

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

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

Part name	Element/type	Description
GetRoomListsResult	**tns:GetRoomListsResponse** (section 3.1.4.1.2.2)	Specifies the SOAP body of the response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the schema version for the **GetRoomListsSOAPOut** message.

A successful **GetRoomLists** operation returns a **GetRoomListsResponse** element, as specified in section 3.1.4.1.2.2, with the **ResponseClass** attribute of the **GetRoomListsResponse** element set to "Success". The **ResponseCode** element, as specified in [MS-OXWSCDATA] section 2.2.4.65, of the **GetRoomListsResponse** element is set to "NoError".

If the request is unsuccessful, the **GetRoomLists** operation returns a **GetRoomListsResponse** element with the **ResponseClass** attribute of the **GetRoomListsResponse** element set to "Error". The **ResponseCode** element of the **GetRoomListsResponse** element is set to a value of the **ResponseCodeType** simple type, as specified in [MS-OXWSCDATA] section 2.2.5.24.

3.1.4.1.2 Elements

The following table summarizes the XML schema element definitions that are specific to the **GetRoomLists** operation, as specified in section 3.1.4.1.

Element name	Description
GetRoomLists (section 3.1.4.1.2.1)	Specifies the request for the **GetRoomLists** operation that is used by clients to retrieve a collection of all room lists in the organization.

Element name	Description
GetRoomListsResponse (section 3.1.4.1.2.2)	Specifies a response to a **GetRoomLists** operation request.

3.1.4.1.2.1 m:GetRoomLists Element

The **GetRoomLists** element is used by the client in a **GetRoomLists** operation request to retrieve a collection of all room lists in the organization. For more details about the **GetRoomLists** operation, see section 3.1.4.1.

```
<xs:element name="GetRoomLists"
  type="m:GetRoomListsType"
 />
```

3.1.4.1.2.2 m:GetRoomListsResponse Element

The **GetRoomListsResponse** element specifies the server response to a **GetRoomLists** operation request. For more details about the **GetRoomLists** operation, see section 3.1.4.1.

```
<xs:element name="GetRoomListsResponse"
  type="m:GetRoomListsResponseMessageType"
 />
```

3.1.4.1.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to the **GetRoomLists** operation, as specified in section 3.1.4.1.

Complex type	Description
GetRoomListsResponseMessageType (section 3.1.4.1.3.1)	Specifies the server response to a **GetRoomLists** operation request.
GetRoomListsType (section 3.1.4.1.3.2)	Specifies a request to retrieve the room lists available within the server organization.

3.1.4.1.3.1 m:GetRoomListsResponseMessageType Complex Type

The **GetRoomListsResponseMessageType** complex type specifies the server response to a **GetRoomLists** operation request. For more details about the **GetRoomLists** operation, see section 3.1.4.1. This complex type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.65.

```
<xs:complexType name="m:GetRoomListsResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ResponseMessageType"
    >
      <xs:sequence>
```

```
        <xs:element name="RoomLists"
          type="t:ArrayOfEmailAddressesType"
          minOccurs="0"
         />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists the child element of the **GetRoomListsResponseMessageType** complex type.

Element name	Type	Description
RoomLists	**t:ArrayOfEmailAddressesType** ([MS-OXWSCDATA] section 2.2.4.7)	Contains the collection of room lists available within the organization. The **ItemId** element, as specified in [MS-OXWSCDATA] section 2.2.4.30, is not returned in the response.

3.1.4.1.3.2 m:GetRoomListsType Complex Type

The **GetRoomListsType** complex type specifies a request to retrieve the room lists available within the server organization. This complex type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.17.

```
<xs:complexType name="m:GetRoomListsType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.1.4 Simple Types

None.

3.1.4.1.5 Attributes

None.

3.1.4.1.6 Groups

None.

3.1.4.1.7 Attribute Groups

None.

3.1.4.2 GetRooms Operation

The **GetRooms** operation retrieves a collection of all rooms in the specified room list in the organization.

The following is the WSDL port type specification for the **GetRooms** operation.

```
<wsdl:operation name="GetRooms">
    <wsdl:input message="tns:GetRoomsSoapIn"/>
    <wsdl:output message="tns:GetRoomsSoapOut"/>
</wsdl:operation>
```

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

```
<wsdl:operation name="GetRooms">
    <soap:operation 
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetRooms"/>
    <wsdl:input>
        <soap:body parts="GetRoomsRequest" use="literal"/>
        <soap:header message="tns:GetRoomsSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:GetRoomsSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:GetRoomsSoapIn" part="RequestVersion" use="literal"/>
    </wsdl:input>
    <wsdl:output>
        <soap:body parts="GetRoomsResult" use="literal"/>
        <soap:header message="tns:GetRoomsSoapOut" part="ServerVersion" use="literal"/>
    </wsdl:output>
</wsdl:operation>
```

3.1.4.2.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to the **GetRooms** operation, as specified in section 3.1.4.2.

Message name	Description
GetRoomsSoapIn (section 3.1.4.2.1.1)	Specifies the SOAP message that requests the collection of rooms that belong to a particular room list.
GetRoomsSoapOut (section 3.1.4.2.1.2)	Specifies the SOAP message returned by the server in the response.

3.1.4.2.1.1 tns:GetRoomsSoapIn Message

The **GetRoomsSoapIn** WSDL message specifies the **GetRooms** operation request to retrieve a collection of all rooms in the specified room list. For more details about the **GetRooms** operation, see section 3.1.4.2.

```
<wsdl:message name="GetRoomsSoapIn">
    <wsdl:part name="GetRoomsRequest" element="tns:GetRooms"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
GetRoomsRequest	**tns:GetRooms** (section 3.1.4.2.2.1)	Specifies the SOAP body of the request.
Impersonation	**t:ExchangeImpersonation** ([MS-OXWSCDATA] section 2.2.3.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating.
MailboxCulture	**t:MailboxCulture** ([MS-OXWSCDATA] section 2.2.3.7)	Specifies a SOAP header that identifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a SOAP header that identifies the schema version for the **GetRooms** operation request.

3.1.4.2.1.2 tns:GetRoomsSoapOut Message

The **GetRoomsSoapOut** WSDL message specifies the server response to the **GetRooms** operation request to retrieve a collection of all rooms in a specified room list. For more details about the **GetRooms** operation, see section 3.1.4.2.

```
<wsdl:message name="GetRoomsSoapOut">
    <wsdl:part name="GetRoomsResult" element="tns:GetRoomsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
GetRoomsResult	**tns:GetRoomsResponse** (section 3.1.4.2.2.2)	Specifies the SOAP body of the response message.
ServerVersion	**t:ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the schema version for the **GetRoomsSoapOut** message.

A successful **GetRooms** operation returns a **GetRoomsResponse** element, as specified in section 3.1.4.2.2.2, with the **ResponseClass** attribute of the **GetRoomsResponse** element, as specified in [MS-OXWSCDATA] section 2.2.4.65, set to "Success". The **ResponseCode** element, as specified in [MS-OXWSCDATA] section 2.2.4.65, of the **GetRoomsResponse** element is set to "NoError".

If the request is unsuccessful, the **GetRoomsResponse** operation returns a **GetRoomsResponse** element with the **ResponseClass** attribute of the **GetRoomsResponse** element set to "Error". The **ResponseCode** element of the **GetRoomsResponse** element is set to a value of the **ResponseCodeType** simple type, as specified in [MS-OXWSCDATA] section 2.2.5.24.

3.1.4.2.2 Elements

The following table summarizes the XML schema element definitions that are specific to the **GetRooms** operation, as specified in section 3.1.4.2.

Element name	Description
GetRooms (section 3.1.4.2.2.1)	Specifies the request for the **GetRooms** operation that is used by clients to retrieve a collection of all rooms within a particular room list.
GetRoomsResponse (section 3.1.4.2.2.2)	Specifies a response to the **GetRooms** operation request.

3.1.4.2.2.1 tns:GetRooms Element

The **GetRooms** element is used by the client in a **GetRooms** operation request to retrieve all of the rooms within a particular room list. For more details about the **GetRooms** operation, see section 3.1.4.2.

```
<xs:element name="tns:GetRooms"
  type="m:GetRoomsType"
 />
```

3.1.4.2.2.2 tns:GetRoomsResponse Element

The **GetRoomsResponse** element specifies the server response to a **GetRooms** operation request. For more details about the **GetRooms** operation, see section 3.1.4.2.

```
<xs:element name="tns:GetRoomsResponse"
  type="m:GetRoomsResponseMessageType"
 />
```

3.1.4.2.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to the **GetRooms** operation, as specified in section 3.1.4.2.

Complex type	Description
GetRoomsResponseMessageType (section 3.1.4.2.3.1)	Specifies the server response to a **GetRooms** operation request.
GetRoomsType (section 3.1.4.2.3.2)	Specifies a request to retrieve the collection of rooms within a particular room list.
ArrayOfRoomsType (section 3.1.4.2.3.3)	Specifies the collection of rooms that belong to the requested room list.
DirectoryEntryType (section 3.1.4.2.3.4)	Specifies the item identifier for the e-mail address of a room.
RoomType (section 3.1.4.2.3.5)	Specifies the name and e-mail address of a room.

3.1.4.2.3.1 m:GetRoomsResponseMessageType Complex Type

The **GetRoomsResponseMessageType** complex type specifies the server response to a **GetRooms** operation request. For more details about the **GetRooms** operation, see section 3.1.4.2. This complex type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.65.

```
<xs:complexType name="m:GetRoomsResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ResponseMessageType"
    >
      <xs:sequence>
        <xs:element name="Rooms"
          type="t:ArrayOfRoomsType"
          minOccurs="0"
         />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists the child element of the **GetRoomsResponseMessageType** complex type.

Element name	Type	Description
Rooms	**t:ArrayOfRoomsType** (section 3.1.4.2.3.3)	Specifies a collection of rooms that belong to the requested room list.

3.1.4.2.3.2 m:GetRoomsType Complex Type

The **GetRoomsType** complex type specifies a request to retrieve the collection rooms within a particular room list. This complex type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.17.

```
<xs:complexType name="GetRoomsType"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="RoomList"
          type="t:EmailAddressType"
         />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists the child element of the **GetRoomsType** complex type.

Element name	Type	Description
RoomList	**t:EmailAddressType** ([MS-OXWSCDATA] section 2.2.4.30)	Specifies the requested room list.

3.1.4.2.3.3 t:ArrayOfRoomsType Complex Type

The **ArrayOfRoomsType** complex type specifies the collection of rooms that belong to the requested room list.

```
<xs:complexType name="t:ArrayOfRoomsType">
  <xs:sequence>
    <xs:element name="Room"
      type="t:RoomType"
     />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child element of the **ArrayOfRoomsType** complex type.

Element	Type	Description
Room	**t:RoomType** (section 3.1.4.2.3.5)	Specifies the name and e-mail address of a room.

3.1.4.2.3.4 t:DirectoryEntryType Complex Type

The **DirectoryEntryType** complex type specifies the item identifier for the e-mail address of a room.

```
<xs:complexType name="DirectoryEntryType">
  <xs:sequence>
    <xs:element name="Id"
      type="t:EmailAddressType"
      minOccurs="0"
     />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child element of the **DirectoryEntryType** complex type.

Element	Type	Description
Id	**t:EmailAddressType** ([MS-OXWSCDATA] section 2.2.4.30)	Specifies the item identifier for the e-mail address of a room.

3.1.4.2.3.5 t:RoomType Complex Type

The **RoomType** complex type specifies the name and e-mail address of a room. This complex type extends the **DirectoryEntryType** complex type, as specified in section 3.1.4.2.3.4.

```
<xs:complexType name="t:RoomType">
  <xs:complexContent>
    <xs:extension
      base="t:DirectoryEntryType"
     />
  </xs:complexContent>
</xs:complexType>
```

3.1.4.2.4 Simple Types

None.

3.1.4.2.5 Attributes

None.

3.1.4.2.6 Groups

None.

3.1.4.2.7 Attribute Groups

None.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

4.1 Getting Room Lists

The following example demonstrates a client request to retrieve a collection of all room lists in the organization, and the server response. In this example, there is only one room list in the organization.

Request:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsd="http://www.w3.org/2001/XMLSchema"
     xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
     xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
     xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version ="Exchange2010_SP1"/>
  </soap:Header>
  <soap:Body>
    <m:GetRoomLists />
  </soap:Body>
</soap:Envelope>
```

Response:

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="14" MinorVersion="1" MajorBuildNumber="164"
MinorBuildNumber="0" Version="Exchange2010_SP1"
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">
    <GetRoomListsResponse ResponseClass="Success"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
      <m:RoomLists xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
        <t:Address xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
          <t:Name>Room List</t:Name>
          <t:EmailAddress>RoomList@contoso.com</t:EmailAddress>
          <t:RoutingType>SMTP</t:RoutingType>
          <t:MailboxType>PublicDL</t:MailboxType>
        </t:Address>
      </m:RoomLists>
    </GetRoomListsResponse>
  </s:Body>
</s:Envelope>
```

4.2 Getting Rooms within a Room List

The following example demonstrates a client request to retrieve a collection of the rooms in the specified room list, and the server response. In this example, there are two rooms in the specified room list.

Request:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsd="http://www.w3.org/2001/XMLSchema"
     xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
     xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
     xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version ="Exchange2010_SP1"/>
  </soap:Header>
  <soap:Body>
    <m:GetRooms>
      <m:RoomList>
        <t:EmailAddress>RoomList@contoso.com</t:EmailAddress>
      </m:RoomList>
    </m:GetRooms>
  </soap:Body>
</s:Envelope>
```

Response:

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="14" MinorVersion="1" MajorBuildNumber="164"
MinorBuildNumber="0" Version="Exchange2010_SP1"
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">
    <GetRoomsResponse ResponseClass="Success"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
      <m:Rooms xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
        <t:Room xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
          <t:Id>
            <t:Name>Room01</t:Name>
            <t:EmailAddress>Room01@contoso.com</t:EmailAddress>
            <t:RoutingType>SMTP</t:RoutingType>
            <t:MailboxType>Mailbox</t:MailboxType>
          </t:Id>
        </t:Room>
        <t:Room xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
          <t:Id>
            <t:Name>Room02</t:Name>
            <t:EmailAddress>Room02@contoso.com</t:EmailAddress>
            <t:RoutingType>SMTP</t:RoutingType>
            <t:MailboxType>Mailbox</t:MailboxType>
          </t:Id>
        </t:Room>
      </m:Rooms>
    </GetRoomsResponse>
  </s:Body>
</s:Envelope>
```

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

The XML files that are listed in the following table are required in order to implement the functionality specified in this document.

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

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

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

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:s="http://www.w3.org/2001/XMLSchema" 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>
    <xs:schema id="messages" elementFormDefault="qualified" version="Exchange2016"
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"/>
      <xs:include schemaLocation="MS-OXWSGTRM-messages.xsd"/>

    </xs:schema>
    <xs:schema id="types" elementFormDefault="qualified" version="Exchange2016"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
      <!-- Add global elements and types from types.xsd -->
    </xs:schema>
  </wsdl:types>
  <wsdl:message name="GetRoomListsSoapIn">
    <wsdl:part name="GetRoomListsRequest" element="tns:GetRoomLists"/>
    <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="GetRoomListsSoapOut">
    <wsdl:part name="GetRoomListsResult" element="tns:GetRoomListsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="GetRoomsSoapIn">
    <wsdl:part name="GetRoomsRequest" element="tns:GetRooms"/>
    <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="GetRoomsSoapOut">
    <wsdl:part name="GetRoomsResult" element="tns:GetRoomsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="GetRoomLists">
      <wsdl:input message="tns:GetRoomListsSoapIn"/>
      <wsdl:output message="tns:GetRoomListsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetRooms">
      <wsdl:input message="tns:GetRoomsSoapIn"/>
      <wsdl:output message="tns:GetRoomsSoapOut"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="ExchangeServiceBinding" type="tns:ExchangeServicePortType">
    <wsdl:documentation>
      <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://ws-
i.org/schemas/conformanceClaim/"/>
    </wsdl:documentation>
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="GetRoomLists">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetRoomLists"/>
      <wsdl:input>
        <soap:body parts="GetRoomListsRequest" use="literal"/>
        <soap:header message="tns:GetRoomListsSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:GetRoomListsSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:GetRoomListsSoapIn" part="RequestVersion" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="GetRoomListsResult" use="literal"/>
        <soap:header message="tns:GetRoomListsSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetRooms">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetRooms"/>
      <wsdl:input>
        <soap:body parts="GetRoomsRequest" use="literal"/>
        <soap:header message="tns:GetRoomsSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:GetRoomsSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:GetRoomsSoapIn" part="RequestVersion" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="GetRoomsResult" use="literal"/>
        <soap:header message="tns:GetRoomsSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
</wsdl:definitions>
```

7 Appendix B: Full XML Schema

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

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

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

7.1 Messages Schema

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

MS-OXWSGTRM-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 7.1

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
elementFormDefault="qualified" version="Exchange2016" id="messages">

  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSGTRM-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>


  <xs:complexType name="GetRoomListsType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetRoomLists" type="m:GetRoomListsType"/>
  <xs:complexType name="GetRoomListsResponseMessageType">
    <xs:complexContent>
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element name="RoomLists" type="t:ArrayOfEmailAddressesType" minOccurs="0"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetRoomListsResponse" type="m:GetRoomListsResponseMessageType"/>
  <xs:complexType name="GetRoomsType" mixed="false">
    <xs:complexContent mixed="false">
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="RoomList" type="t:EmailAddressType"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetRooms" type="m:GetRoomsType"/>
  <xs:complexType name="GetRoomsResponseMessageType">
    <xs:complexContent>
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element name="Rooms" type="t:ArrayOfRoomsType" minOccurs="0"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetRoomsResponse" type="m:GetRoomsResponseMessageType"/>
</xs:schema>
```

7.2 Types Schema

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

MS-OXWSGTRM-types.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-types.xsd	[MS-OXWSCDATA] section 7.2

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified" version="Exchange2016" id="types">
  <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>

  <xs:include schemaLocation="MS-OXWSCDATA-types.xsd" />

    <xs:complexType name="DirectoryEntryType">
    <xs:sequence>
      <xs:element name="Id" type="t:EmailAddressType" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="RoomType">
    <xs:complexContent>
      <xs:extension base="t:DirectoryEntryType">
        <!-- We don't need anything additional at this time -->
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>

  <xs:complexType name="ArrayOfRoomsType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="Room" type="t:RoomType" />
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

8 Appendix C: Product Behavior

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

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

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

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

9 Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as New, Major, Minor, Editorial, or No change.

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

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

- A document revision that incorporates changes to interoperability requirements or functionality.
- The removal of a document from the documentation set.

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

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

The revision class **No change** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the technical content of the document is identical to the last released version.

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

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

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

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

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

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

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

10 Index