Get Rooms List Web Service Protocol

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation ("this documentation") for protocols, file formats, data portability, computer languages, and standards support. Additionally, overview documents cover inter-protocol relationships and interactions.
- **Copyrights.** This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you can make copies of it in order to develop implementations of the technologies that are described in this documentation and can distribute portions of it in your implementations that use these technologies or in your documentation as necessary to properly document the implementation. You can also distribute in your implementation, with or without modification, any schemas, IDLs, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications documentation.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that might cover your implementations of the technologies described in the Open Specifications documentation. Neither this notice nor Microsoft's delivery of this documentation grants any licenses under those patents or any other Microsoft patents. However, a given Open Specifications document might be covered by the Microsoft [Open Specifications Promise](https://www.microsoft.com/en-us/openspecs/oss/承诺/00367a17-3b75-454d-aab2-2c8a585b27f2) or the [Microsoft Community Promise](https://www.microsoft.com/en-us/openspecs/oss/承诺/00367a17-3b75-454d-aab2-2c8a585b27f2). If you would prefer a written license, or if the technologies described in this documentation are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting [iplg@microsoft.com](mailto:iplg@microsoft.com).
- **License Programs.** To see all of the protocols in scope under a specific license program and the associated patents, visit the [Patent Map](https://www.microsoft.com/en-us/openspecs/oss/承诺/00367a17-3b75-454d-aab2-2c8a585b27f2).
- **Trademarks.** The names of companies and products contained in this documentation might be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights. For a list of Microsoft trademarks, visit [www.microsoft.com/trademarks](https://www.microsoft.com/trademarks).
- **Fictitious Names.** The example companies, organizations, products, domain names, email addresses, logos, people, places, and events that are depicted in this documentation are fictitious. No association with any real company, organization, product, domain name, email address, logo, person, place, or event is intended or should be inferred.

**Reservation of Rights.** All other rights are reserved, and this notice does not grant any rights other than as specifically described above, whether by implication, estoppel, or otherwise.

**Tools.** The Open Specifications documentation does not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments, you are free to take advantage of them. Certain Open Specifications documents are intended for use in conjunction with publicly available standards specifications and network programming art and, as such, assume that the reader either is familiar with the aforementioned material or has immediate access to it.

**Support.** For questions and support, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com).
## Revision Summary

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision History</th>
<th>Revision Class</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/15/2009</td>
<td>1.0</td>
<td>Major</td>
<td>Initial Availability.</td>
</tr>
<tr>
<td>11/4/2009</td>
<td>1.1.0</td>
<td>Minor</td>
<td>Updated the technical content.</td>
</tr>
<tr>
<td>2/10/2010</td>
<td>1.1.0</td>
<td>None</td>
<td>Version 1.1.0 release</td>
</tr>
<tr>
<td>5/5/2010</td>
<td>1.1.1</td>
<td>Editorial</td>
<td>Revised and edited the technical content.</td>
</tr>
<tr>
<td>8/4/2010</td>
<td>1.2</td>
<td>Minor</td>
<td>Clarified the meaning of the technical content.</td>
</tr>
<tr>
<td>11/3/2010</td>
<td>1.2</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>3/18/2011</td>
<td>1.2</td>
<td>None</td>
<td>No changes to the meaning, language, and formatting of the technical content.</td>
</tr>
<tr>
<td>8/5/2011</td>
<td>1.3</td>
<td>Minor</td>
<td>Clarified the meaning of the technical content.</td>
</tr>
<tr>
<td>10/7/2011</td>
<td>2.0</td>
<td>Major</td>
<td>Significantly changed the technical content.</td>
</tr>
<tr>
<td>1/20/2012</td>
<td>3.0</td>
<td>Major</td>
<td>Significantly changed the technical content.</td>
</tr>
<tr>
<td>4/27/2012</td>
<td>3.0</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>7/16/2012</td>
<td>3.1</td>
<td>Minor</td>
<td>Clarified the meaning of the technical content.</td>
</tr>
<tr>
<td>10/8/2012</td>
<td>3.2</td>
<td>Minor</td>
<td>Clarified the meaning of the technical content.</td>
</tr>
<tr>
<td>2/11/2013</td>
<td>3.2</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>7/26/2013</td>
<td>4.0</td>
<td>Major</td>
<td>Significantly changed the technical content.</td>
</tr>
<tr>
<td>11/18/2013</td>
<td>4.0</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>2/10/2014</td>
<td>4.0</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>4/30/2014</td>
<td>4.1</td>
<td>Minor</td>
<td>Clarified the meaning of the technical content.</td>
</tr>
<tr>
<td>7/31/2014</td>
<td>4.1</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>10/30/2014</td>
<td>4.2</td>
<td>Minor</td>
<td>Clarified the meaning of the technical content.</td>
</tr>
<tr>
<td>3/16/2015</td>
<td>5.0</td>
<td>Major</td>
<td>Significantly changed the technical content.</td>
</tr>
<tr>
<td>5/26/2015</td>
<td>5.0</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>9/14/2015</td>
<td>5.0</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>6/13/2016</td>
<td>5.0</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>9/14/2016</td>
<td>5.0</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
<tr>
<td>Date</td>
<td>Revision History</td>
<td>Revision Class</td>
<td>Comments</td>
</tr>
<tr>
<td>------------</td>
<td>------------------</td>
<td>----------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>7/24/2018</td>
<td>6.0</td>
<td>Major</td>
<td>Significantly changed the technical content.</td>
</tr>
<tr>
<td>10/1/2018</td>
<td>7.0</td>
<td>Major</td>
<td>Significantly changed the technical content.</td>
</tr>
<tr>
<td>4/22/2021</td>
<td>8.0</td>
<td>Major</td>
<td>Significantly changed the technical content.</td>
</tr>
<tr>
<td>8/17/2021</td>
<td>9.0</td>
<td>Major</td>
<td>Significantly changed the technical content.</td>
</tr>
<tr>
<td>2/15/2022</td>
<td>9.0</td>
<td>None</td>
<td>No changes to the meaning, language, or formatting of the technical content.</td>
</tr>
</tbody>
</table>
# Table of Contents

1 Introduction ......................................................................................... 6
  1.1 Glossary ....................................................................................... 6
  1.2 References ................................................................................... 7
  1.2.1 Normative References ................................................................. 7
  1.2.2 Informative References ............................................................... 8
  1.3 Overview ....................................................................................... 8
  1.4 Relationship to Other Protocols ....................................................... 8
  1.5 Prerequisites/Preconditions ............................................................. 8
  1.6 Applicability Statement ................................................................... 9
  1.7 Versioning and Capability Negotiation ............................................. 9
  1.8 Vendor-Extensible Fields ................................................................. 9
  1.9 Standards Assignments .................................................................... 9

2 Messages.................................................................................................. 10
  2.1 Transport ...................................................................................... 10
  2.2 Common Message Syntax ............................................................... 10
    2.2.1 Namespaces .............................................................................. 10
    2.2.2 Messages ............................................................................... 10
    2.2.3 Elements ............................................................................... 10
    2.2.4 Complex Types ....................................................................... 11
    2.2.5 Simple Types .......................................................................... 11
    2.2.6 Attributes .............................................................................. 11
    2.2.7 Groups ................................................................................... 11
    2.2.8 Attribute Groups .................................................................... 11

3 Protocol Details .................................................................................... 12
  3.1 ExchangeServicePortType Server Details ....................................... 12
    3.1.1 Abstract Data Model ................................................................. 12
    3.1.2 Timers .................................................................................... 12
    3.1.3 Initialization ........................................................................... 12
    3.1.4 Message Processing Events and Sequencing Rules ........................ 12
      3.1.4.1 GetRoomLists Operation .................................................. 12
        3.1.4.1.1 Messages ................................................................. 13
          3.1.4.1.1.1 tns:GetRoomListsSoapIn Message ......................... 13
          3.1.4.1.1.2 tns:GetRoomListsSoapOut Message ..................... 14
        3.1.4.1.2 Elements .................................................................. 14
          3.1.4.1.2.1 m:GetRoomListsElement ..................................... 15
          3.1.4.1.2.2 m:GetRoomListsResponseElement ....................... 15
        3.1.4.1.3 Complex Types ......................................................... 15
          3.1.4.1.3.1 m:GetRoomListsResponseMessageType Complex Type 15
          3.1.4.1.3.2 m:GetRoomListType Complex Type ...................... 16
        3.1.4.1.4 Simple Types ............................................................. 16
        3.1.4.1.5 Attributes ................................................................ 16
        3.1.4.1.6 Groups .................................................................... 16
        3.1.4.1.7 Attribute Groups ....................................................... 16
      3.1.4.2 GetRooms Operation ............................................................ 16
        3.1.4.2.1 Messages ............................................................... 17
          3.1.4.2.1.1 tns:GetRoomsSoapIn Message ................................ 17
          3.1.4.2.1.2 tns:GetRoomsSoapOut Message ............................ 18
        3.1.4.2.2 Elements ................................................................ 18
          3.1.4.2.2.1 tns:GetRoomsElement ......................................... 19
          3.1.4.2.2.2 tns:GetRoomsResponseElement ............................ 19
        3.1.4.2.3 Complex Types ........................................................... 19
          3.1.4.2.3.1 m:GetRoomsResponseMessageType Complex Type ... 19
          3.1.4.2.3.2 m:GetRoomsType Complex Type .......................... 20
1 Introduction

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

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

1.1 Glossary

This document uses the following terms:

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

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".


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.

![Diagram showing the layering of protocols in relation to this protocol]

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
Get Rooms List Web Service Protocol

Copyright © 2022 Microsoft Corporation
Release: February 15, 2022

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 2.2.3.9, and the version of the server responding to the request is identified by using the ServerVersionInfo element, as described in [MS-OXWSCDATA] section 2.2.3.10.
- **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.

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Namespace URI</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>soap</td>
<td><a href="http://schemas.xmlsoap.org(wsdl)/soap/">http://schemas.xmlsoap.org(wsdl)/soap/</a></td>
<td>[SOAP1.1]</td>
</tr>
<tr>
<td>tns</td>
<td><a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a></td>
<td></td>
</tr>
<tr>
<td>s</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1], [XMLSCHEMA2]</td>
</tr>
<tr>
<td>wsdl</td>
<td><a href="http://schemas.xmlsoap.org/wsdl/">http://schemas.xmlsoap.org/wsdl/</a></td>
<td>[WSDL]</td>
</tr>
<tr>
<td>t</td>
<td><a href="http://schemas.microsoft.com/exchange/services/2006/types">http://schemas.microsoft.com/exchange/services/2006/types</a></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td><a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a></td>
<td></td>
</tr>
<tr>
<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1], [XMLSCHEMA2]</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Operation name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomLists</td>
<td>Retrieves a collection of all room lists in the organization.</td>
</tr>
<tr>
<td>GetRooms</td>
<td>retrieves a collection of all rooms in the specified room list in the organization.</td>
</tr>
</tbody>
</table>

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.

```xml
<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.

```xml
<wsdl:operation name="GetRoomLists">
  <soap:operation
  <wsdl:input>
```
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.

<table>
<thead>
<tr>
<th>Message name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomListsSoapIn</td>
<td>Specifies the SOAP message that requests a collection of all room lists in the organization.</td>
</tr>
<tr>
<td>GetRoomListsSoapOut</td>
<td>Specifies the SOAP message returned by the server in the response.</td>
</tr>
</tbody>
</table>

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.

```xml
<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.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomListsRequest</td>
<td>tns:GetRoomLists (section 3.1.4.1.2.1)</td>
<td>Specifies the SOAP body of the request.</td>
</tr>
<tr>
<td>Impersonation</td>
<td>t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3)</td>
<td>Specifies a SOAP header that identifies the user whom the client application is impersonating.</td>
</tr>
<tr>
<td>MailboxCulture</td>
<td>t:MailboxCulture ([IMS-OXWSCDATA] section 2.2.3.6)</td>
<td>Specifies a SOAP header that identifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].</td>
</tr>
<tr>
<td>RequestVersion</td>
<td>t:RequestServerVersion ([IMS-OXWSCDATA] section 2.2.3.9)</td>
<td>Specifies a SOAP header that identifies the schema version for the GetRoomLists operation.</td>
</tr>
</tbody>
</table>
### 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.

```xml
<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.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomListsResult</td>
<td>tns:GetRoomListsResponse (section 3.1.4.1.2.2)</td>
<td>Specifies the SOAP body of the response message.</td>
</tr>
<tr>
<td>ServerVersion</td>
<td>t:ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10)</td>
<td>Specifies a SOAP header that identifies the schema version for the GetRoomListsSOAPOut message.</td>
</tr>
</tbody>
</table>

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 2.2.4.67, 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 2.2.5.2.

### 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.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomLists (section 3.1.4.1.2.1)</td>
<td>Specifies the request for the <strong>GetRoomLists</strong> operation that is used by clients to retrieve a collection of all room lists in the organization.</td>
</tr>
<tr>
<td>GetRoomListsResponse (section 3.1.4.1.2.2)</td>
<td>Specifies a response to a <strong>GetRoomLists</strong> operation request.</td>
</tr>
</tbody>
</table>
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.

```xml
<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.

```xml
<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.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomListsResponseMessageType (section 3.1.4.1.3.1)</td>
<td>Specifies the server response to a <strong>GetRoomLists</strong> operation request.</td>
</tr>
<tr>
<td>GetRoomListsType (section 3.1.4.1.3.2)</td>
<td>Specifies a request to retrieve the room lists available within the server organization.</td>
</tr>
</tbody>
</table>

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 2.2.4.67.

```xml
<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.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoomLists</td>
<td>t:ArrayOfEmailAddressesType ([MS-OXWSCDATA] section 2.2.4.7)</td>
<td>Contains the collection of room lists available within the organization. The <code>ItemID</code> element, as specified in [MS-OXWSCDATA] section 2.2.4.31, is not returned in the response.</td>
</tr>
</tbody>
</table>

### 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.

```xml
<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.

```xml
<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">
  <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.

<table>
<thead>
<tr>
<th>Message name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomsSoapIn</td>
<td>Specifies the SOAP message that requests the collection of rooms that belong to a particular room list.</td>
</tr>
<tr>
<td>GetRoomsSoapOut</td>
<td>Specifies the SOAP message returned by the server in the response.</td>
</tr>
</tbody>
</table>

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.

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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomsRequest</td>
<td>tns:GetRooms (section 3.1.4.2.2.1)</td>
<td>Specifies the SOAP body of the request.</td>
</tr>
<tr>
<td>Impersonation</td>
<td>t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3)</td>
<td>Specifies a SOAP header that identifies the user whom the client application is impersonating.</td>
</tr>
<tr>
<td>MailboxCulture</td>
<td>t:MailboxCulture ([MS-OXWSCDATA] section 2.2.3.6)</td>
<td>Specifies a SOAP header that identifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].</td>
</tr>
</tbody>
</table>
### 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.

```xml
<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.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRoomsResult</td>
<td>tns:GetRoomsResponse</td>
<td>Specifies the SOAP body of the response message.</td>
</tr>
<tr>
<td>ServerVersion</td>
<td>t:ServerVersionInfo</td>
<td>Specifies a SOAP header that identifies the schema version for the <strong>GetRoomsSoapOut</strong> message.</td>
</tr>
</tbody>
</table>

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 2.2.4.67, set to "Success". The **ResponseCode** element, as specified in [MS-OXWSCDATA] section 2.2.4.67, 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.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetRooms</td>
<td>Specifies the request for the <strong>GetRooms</strong> operation that is used by clients to retrieve a collection of all rooms within a particular room list.</td>
</tr>
<tr>
<td>GetRoomsResponse</td>
<td>Specifies a response to the <strong>GetRooms</strong> operation request.</td>
</tr>
</tbody>
</table>
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.

```xml
<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.

```xml
<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.

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

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 2.2.4.67.

```xml
<xs:complexType name="m:GetRoomsResponseMessageType">
  <xs:complexContent>
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element name="Rooms" type="t:ArrayOfRoomsType" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```
The following table lists the child element of the **GetRoomsResponseMessageType** complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rooms</td>
<td>t:ArrayOfRoomsType (section 3.1.4.2.3.3)</td>
<td>Specifies a collection of rooms that belong to the requested room list.</td>
</tr>
</tbody>
</table>

### 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.

```xml
<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.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoomList</td>
<td>t:EmailAddressType ([MS-OXWSCDATA] section 2.2.4.31)</td>
<td>Specifies the requested room list.</td>
</tr>
</tbody>
</table>

### 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.

```xml
<xs:complexType name="t:ArrayOfRoomsType">
  <xs:sequence>
    <xs:element minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```
The following table lists the child element of the `ArrayOfRoomsType` complex type.

<table>
<thead>
<tr>
<th>Element</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room</td>
<td>t:RoomType</td>
<td>Specifies the name and e-mail address of a room.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>t:EmailAddressType</td>
<td>Specifies the item identifier for the e-mail address of a room.</td>
</tr>
</tbody>
</table>

### 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
<?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
<?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
<?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>
</soap:Envelope>

Response:

<?xml version="1.0" encoding="utf-8"?>
<envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
    <header>
    </header>
    <body xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
        <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: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>
            </m:Rooms>
        </body>
    </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.

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

These files have to be placed in a common folder in order for the WSDL to validate and operate. Also, any schema files that are included in or imported into the MS-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
<?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">
            <xs:include schemaLocation="MS-OXWSGTRM-messages.xsd"/>
        </xs:schema>
        <xs:schema id="types" elementFormDefault="qualified" version="Exchange2016"
            xmlns:m="http://schemas.microsoft.com/exchange/services/2006/types"
            targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
            xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
            xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
            xmlns:xs="http://www.w3.org/1998/XMLSchema">
            <!-- 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:definitions>
```
<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
    <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>
Appendix B: Full XML Schema

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

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

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

<table>
<thead>
<tr>
<th>File name</th>
<th>Defining specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OXWSCDATA-messages.xsd</td>
<td>[MS-OXWSCDATA] section 7.1</td>
</tr>
</tbody>
</table>

```xml
<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: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.

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

<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns: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: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 updates to those products.

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

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

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

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

A
Abstract data model
server 12
Applicability 9
Attribute groups 11
Attributes 11

C
Capability negotiation 9
Change tracking 31
Complex types 11

D
Data model - abstract
server 12

E
Events
local - server 22
timer - server 22
Examples
getting room lists 23
getting rooms within a room list 23

F
Fields - vendor-extendable 9
Full WSDL 26
Full XML schema 28
Messages Schema 28
Types Schema 29

G
Getting room lists example 23
Getting rooms within a room list example 23
Glossary 6
Groups 11

I
Implementer - security considerations 25
Index of security parameters 25
Informative references 8
Initialization
server 12
Introduction 6

L
Local events
server 22

M
Message processing
server 12

Messages
attribute groups 11
attributes 11
complex types 11
elements 10
enumerated 10
groups 11
namespaces 10
simple types 11
syntax 10
transport 10

N
Namespaces 10
Normative references 7

O
Operations
GetRoomLists Operation 12
GetRooms Operation 16
Overview (synopsis) 8

P
Parameters - security index 25
Preconditions 8
Prerequisites 8
Product behavior 30
Protocol Details
overview 12

R
References 7
informative 8
normative 7
Relationship to other protocols 8

S
Security
implementer considerations 25
parameter index 25
Sequencing rules
server 12
Server
abstract data model 12
GetRoomLists Operation operation 12
GetRooms Operation operation 16
initialization 12
local events 22
message processing 12
sequencing rules 12
timer events 22
timers 12
Simple types 11
 Standards assignments 9
Syntax
messages - overview 10