

# [MS-OXWSGTRM]: Get Rooms List Web Service Protocol Specification

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## Revision Summary

Date	Revision History	Revision Class	Comments
07/15/2009	1.0	Major	Initial Availability.
11/04/2009	1.1.0	Minor	Updated the technical content.
02/10/2010	1.1.0	None	Version 1.1.0 release
05/05/2010	1.1.1	Editorial	Revised and edited the technical content.
08/04/2010	1.2	Minor	Clarified the meaning of the technical content.

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# 1 Introduction

This document specifies the Get Rooms List Web Service protocol, which sends the request-response messages for retrieving meeting room information.

## 1.1 Glossary

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

**distribution list**  
**folder**  
**Hypertext Transfer Protocol (HTTP)**  
**Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**  
**identifier**  
**mailbox**  
**meeting**  
**message**  
**recipient**  
**SOAP message**  
**Web server**  
**Web Services Description Language (WSDL)**  
**WSDL message**  
**XML**  
**XML namespace**  
**XML schema**

The following terms are specific to this document:

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

## 1.2 References

### 1.2.1 Normative References

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

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

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

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

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

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

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

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

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

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

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

## 1.2.2 Informative References

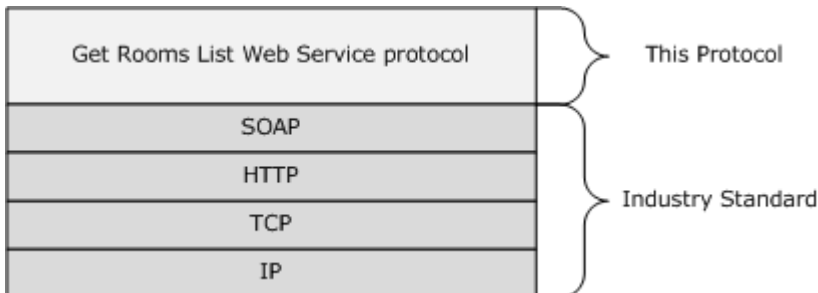
[MS-OXGLOS] Microsoft Corporation, "[Exchange Server Protocols Master Glossary](#)", April 2008.

## 1.3 Overview

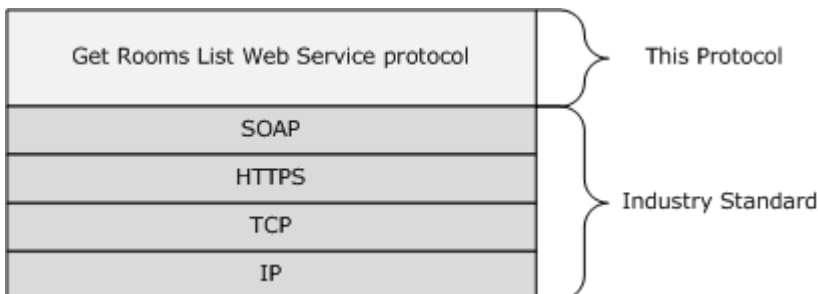
The Get Rooms List Web Service protocol provides a client with a list of locations of meeting rooms within the server organization. This protocol also provides the client with the list of meeting rooms within a selected location room list. Each list of locations is an unfiltered list of names of all the locations. Each list of meeting rooms in a location list contains a list of room recipients, where an e-mail address and room display name are included for each room.

## 1.4 Relationship to Other Protocols

The Get Rooms List Web Service protocol uses SOAP over **HTTP** and SOAP over **HTTPS** [\[RFC2818\]](#), as shown in the following figures.



**Figure 1: Get Rooms List Web Service protocol HTTP stack**



## Figure 2: Get Rooms List Web Service protocol HTTPS stack

### 1.5 Prerequisites/Preconditions

None.

### 1.6 Applicability Statement

This protocol is applicable to higher level client applications that provide 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 specified in section [2.1](#).
- **Protocol Versions:** This protocol specifies only one WSDL portType version. This version is defined in section [3.1](#).
- **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**. Localization considerations for such strings are specified in sections [2.2](#) and [3.1.4](#).
- **Capability Negotiation:** None.

### 1.8 Vendor-Extensible Fields

None.

### 1.9 Standards Assignments

None.

## 2 Messages

### 2.1 Transport

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

### 2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as defined in [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#), and **Web Services Description Language (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	<a href="http://schemas.xmlsoap.org/wsdl/soap/">http://schemas.xmlsoap.org/wsdl/soap/</a>	<a href="#">[SOAP1.1]</a>
tns	<a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a>	[MS-OXWSGTRM]
s	<a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>	<a href="#">[XMLSCHEMA1]</a>
wsdl	<a href="http://schemas.xmlsoap.org/wsdl/">http://schemas.xmlsoap.org/wsdl/</a>	<a href="#">[WSDL]</a>
t	<a href="http://schemas.microsoft.com/exchange/services/2006/types">http://schemas.microsoft.com/exchange/services/2006/types</a>	[MS-OXWSGTRM]
targetNamespace	<a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a>	[MS-OXWSGTRM]

#### 2.2.2 Messages

This specification does not define any common XML schema message syntax 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

The Get Rooms List Web Service protocol defines a single port type.

Operation	Description
<a href="#">GetRoomLists</a>	<b>GetRoomLists</b> retrieves a collection of all room lists in the organization.
<a href="#">GetRooms</a>	<b>GetRooms</b> retrieves a collection of all rooms in the specified room list in the organization.

#### 3.1.1 Abstract Data Model

This protocol is a stateless protocol.

#### 3.1.2 Timers

None.

#### 3.1.3 Initialization

None.

#### 3.1.4 Message Processing Events and Sequencing

This protocol includes the operations listed in the following table.

Operation	Description
<a href="#">GetRoomLists</a>	Retrieves a collection of all room lists in the organization.
<a href="#">GetRooms</a>	Retrieves a collection of all rooms in the specified room list in the organization.

##### 3.1.4.1 GetRoomLists

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

Request

Message Format	Description
<a href="#">tns:GetRoomListsSoapIn</a>	Specifies the <b>SOAP message</b> that requests room lists.

Response

Message Format	Description
<a href="#">tns:GetRoomListsSoapOut</a>	Specifies the SOAP message returned by the server in response.

### 3.1.4.1.1 Complex Types

The following XML schema complex types are specific to this operation.

Type	Description
<a href="#">m:GetRoomListsResponseMessageType</a>	Provides status information about the response.
<a href="#">m:GetRoomListsType</a>	Provides the room lists available within the server organization.

#### 3.1.4.1.1.1 m:GetRoomListsResponseMessageType Complex Type

The **GetRoomListsResponseMessageType** provides status information about the response.

```
<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>
```

Child Elements

Element	Type	Description
RoomLists	<a href="#">t:ArrayOfEmailAddressesType</a>	Contains the requested room list.

#### 3.1.4.1.1.2 m:GetRoomListsType Complex Type

The **GetRoomListsType** complex type provides the room lists available within the server organization.

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

#### 3.1.4.1.2 Elements

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

Operation	Description
<a href="#">tns:GetRoomLists</a>	Retrieves a collection of all room lists in the organization.
<a href="#">tns:GetRoomListsResponse</a>	Represents the response to a <b>distribution list</b> expansion operation.

### 3.1.4.1.2.1 GetRoomLists Element

The <GetRoomLists> element retrieves a collection of all room lists in the organization.

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

### 3.1.4.1.2.2 GetRoomListsResponse Element

The <GetRoomListsResponse> element represents the response to a distribution list expansion operation.

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

### 3.1.4.1.3 Messages

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

Messages	Description
<a href="#">tns:GetRoomListsSoapIn</a>	The request that retrieves a collection of all room lists in the organization.
<a href="#">tns:GetRoomListsSoapOut</a>	The response that delivers the collection of all room lists in the organization.

#### 3.1.4.1.3.1 tns:GetRoomListsSoapIn

The **tns:GetRoomListsSoapIn** message contains four parts, as described in the following table.

Part Name	Element/Type	Description
GetRoomListsRequest	<a href="#">tns:GetRoomLists</a>	Specifies the request.
Impersonation	<a href="#">t:ExchangeImpersonation</a>	Specifies the user whom the client application is impersonating.
MailboxCulture	<a href="#">t:MailboxCulture</a>	Specifies the culture to use for accessing the <b>mailbox</b> . The cultures are defined by <a href="#">[RFC3066]</a> .
RequestVersion	<a href="#">t:RequestServerVersion</a>	Specifies the schema version for the tns:GetRoomLists request.

### 3.1.4.1.3.2 tns:GetRoomListsSoapOut

The **tns:GetRoomListsSoapOut** message contains two parts, as described in the following table.

Part Name	Element/Type	Description
GetRoomListsResult	<a href="#">tns:GetRoomListsResponse</a>	Specifies the response message.
ServerVersion	<a href="#">t:ServerVersionInfo</a>	Specifies the schema version for the tns:GetRoomListsResponse message.

### 3.1.4.2 Get Rooms

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

Request

Message Format	Description
<a href="#">tns:GetRoomsSoapIn</a>	Specifies the SOAP message that requests rooms from the server.

Response

Message Format	Description
<a href="#">tns:GetRoomsSoapOut</a>	Specifies the SOAP message returned by the server in response.

#### 3.1.4.2.1 Complex Types

The following XML schema complex types are specific to this operation.

Type	Description
<a href="#">m:GetRoomsResponseMessageType</a>	Provides the status of a single <b>GetRoomLists</b> request.
<a href="#">m:GetRoomsType</a>	Contains a list of rooms.
<a href="#">t:ArrayOfRoomsType</a>	Contains an array of <Rooms> that comprise the requested room list.
<a href="#">t:DirectoryEntryType</a>	Represents the item <b>identifier</b> for the e-mail address of a room.
<a href="#">t:RoomType</a>	Contains the name and e-mail address of a room.

##### 3.1.4.2.1.1 m:GetRoomsResponseMessageType Complex Type

The **GetRoomsResponseMessageType** complex type provides the status of a single **GetRoomLists** request.

```
<xs:complexType>
  <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>

```

#### Child Elements

Element	Type	Description
Rooms	<a href="#">t:ArrayOfRoomsType</a>	Provides an array of <Rooms> that comprise the requested room list.

### 3.1.4.2.1.2 m:GetRoomsType Complex Type

The **GetRoomsType** complex type contains the list of rooms.

```

<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>

```

#### Child Elements

Element	Type	Description
RoomList	<a href="#">t:EmailAddressType</a>	Contains the requested room list.

### 3.1.4.2.1.3 t:ArrayOfRoomsType Complex Type

The **ArrayOfRoomsType** complex type contains an array of <Rooms> that comprise the requested room list.

```

<xs:complexType name="t:ArrayOfRoomsType">
  <xs:sequence>
    <xs:element name="Room"

```

```

        type="t:RoomType"
      />
    </xs:sequence>
  </xs:complexType>

```

#### Child Elements

Element	Type	Description
Room	<a href="#">t:RoomType</a>	Contains the name and e-mail address of a room.

#### 3.1.4.2.1.4 t:DirectoryEntryType Complex Type

The **DirectoryEntryType** complex type represents 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>

```

#### Child Elements

Element	Type	Description
Id	<a href="#">t:EmailAddressType</a>	Represents the item identifier for the e-mail address of a room.

#### 3.1.4.2.1.5 t:RoomType Complex Type

The **RoomType** complex type contains the name and e-mail address of a room.

```

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

```

#### 3.1.4.2.2 Elements

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

Operation	Description
<a href="#">tns:GetRooms</a>	Retrieves all the rooms within a particular room list.
<a href="#">tns:GetRoomsResponse</a>	Defines a response to a <b>GetRooms</b> request.

### 3.1.4.2.2.1 tns:GetRooms Element

The **GetRooms** element retrieves all the rooms within a particular room list.

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

### 3.1.4.2.2.2 tns:GetRoomsResponse Element

The **GetRoomsResponse** element defines a response to the **GetRooms** request.

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

### 3.1.4.2.3 Messages

The following WSDL message definitions are specific to this operation.

Messages	Description
<a href="#">tns:GetRoomsSoapIn</a>	The request that retrieves a list of rooms from a particular room list.
<a href="#">tns:GetRoomsSoapOut</a>	The response that delivers a list of rooms from a particular room list.

#### 3.1.4.2.3.1 tns:GetRoomsSoapIn

The **GetRoomsSoapIn** message contains four parts, as described in the following table.

Part Name	Element/Type	Description
GetRoomsRequest	<a href="#">tns:GetRooms</a>	Retrieves all the rooms within a particular room list.
Impersonation	<a href="#">t:ExchangeImpersonation</a>	Specifies the user whom the client application is impersonating.
MailboxCulture	<a href="#">t:MailboxCulture</a>	Specifies the culture to use for accessing the mailbox. The cultures are defined by <a href="#">RFC3066</a> .
RequestVersion	<a href="#">t:RequestServerVersion</a>	Specifies the schema version for the tns:GetRooms request.



### 3.1.4.2.3.2 tns:GetRoomsSoapOut

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

Part Name	Element/Type	Description
GetRoomsResult	<a href="#">tns:GetRoomsResponse</a>	Specifies the response message.
ServerVersion	<a href="#">t:ServerVersionInfo</a>	Specifies the schema version for the <b>GetRoomsSoapOut</b> message.

### 3.1.5 Timer Events

None.

### 3.1.6 Other Local Events

None.

## 3.2 Client Details

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

### 3.2.1 Client Abstract Data Model

None.

### 3.2.2 Client Timers

None.

### 3.2.3 Client Initialization

None.

### 3.2.4 Client Message Processing Events and Sequencing

None.

### 3.2.5 Client Timer Events

None.

### 3.2.6 Client Other Local Events

None.

## 4 Protocol Examples

None.

## **5 Security**

### **5.1 Security Considerations for Implementors**

The Get Rooms List Web service does not use additional security mechanisms.

### **5.2 Index of Security Parameters**

None.

## 6 Appendix A: Full WSDL

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

File name	Description	Section
MS-OXWSGTRM.wsdl	Contains the WSDL for the implementation of this protocol.	<a href="#">6.1</a>
MS-OXWSGTRM-types.xsd	Contains the XML schema type definitions that are used in this protocol.	<a href="#">6.2</a>
MS-OXWSGTRM-messages.xsd	Contains the XML schema message definitions that are used in this protocol.	<a href="#">6.3</a>

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

For ease of implementation, the full WSDLs and schemas are provided in the following sections.

### 6.1 WSDL

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="Exchange2010"
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="Exchange2010"
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:portType name="ExchangeServicePortType">
    <wsdl:operation name="GetRoomLists">
      <wsdl:input message="tns:GetRoomListsSoapIn"/>
      <wsdl:output message="tns:GetRoomListsSoapOut"/>
    </wsdl:operation>
  </wsdl:portType>
</wsdl:definitions>
```

```

        <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: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:definitions>

```

## 6.2 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. For the schema file to operate correctly, this file needs to be present in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

Defining specification	File name
<a href="#">[MS-OXWSCORE]</a> , section <a href="#">6.2</a>	MS-OXWSCORE-types.xsd

```

<?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/types"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
  elementFormDefault="qualified" version="Exchange2010" id="types">
  <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
  <xs:include schemaLocation="MS-OXWSCORE-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"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="ArrayOfRoomsType">
    <xs:sequence>
      <xs:element name="Room" type="t:RoomType" minOccurs="0"
maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>

```

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

Defining specification	File name
<a href="#">[MS-OXWSCDATA]</a> , section 6.2	MS-OXWSCDATA-messages.xsd

```
<?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="Exchange2010" 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 Appendix B: Product Behavior

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

- Microsoft® Exchange Server 2010

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

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



## 8 Change Tracking

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

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

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

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

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

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

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

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

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

- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.
- New content added for template compliance.
- Content updated for template compliance.
- Content removed for template compliance.
- Obsolete document removed.

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

Some important terms used in 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 [protocol@microsoft.com](mailto:protocol@microsoft.com).

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
<a href="#">1.1 Glossary</a>	57058 Added the following to the list of terms that are defined in [MS-OXGLOS]: "distribution list", "folder", "Hypertext Transfer Protocol (HTTP)", "Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)", "identifier", "mailbox", "meeting", "message", "recipient", "SOAP message", and "Web server". Removed the following from the list of terms that are defined in [MS-OXGLOS]: "SOAP body", "SOAP header", and "SOAP fault".	N	Content update.
<a href="#">1.2.1 Normative References</a>	55751 Moved [MS-OXGLOS] from Normative References section to Informative References section.	N	Content update.
<a href="#">1.2.1 Normative References</a>	57733 Removed unused references [RFC2396] and [RFC2616].	N	Content removed.
<a href="#">2.2.2 Messages</a>	57178 Changed section title from "Message Syntax" to "Messages".	N	Content update.
<a href="#">6 Appendix A: Full WSDL</a>	57178 Updated introductory text.	N	Content update.

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