

# [MS-OXWSEDISC]: Electronic Discovery (eDiscovery) Web Service Protocol Specification

---

## Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation for protocols, file formats, languages, standards as well as overviews of the interaction among each of these technologies.
- **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 may make copies of it in order to develop implementations of the technologies described in the Open Specifications and may distribute portions of it in your implementations using these technologies or your documentation as necessary to properly document the implementation. You may also distribute in your implementation, with or without modification, any schema, IDL's, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that may cover your implementations of the technologies described in the Open Specifications. Neither this notice nor Microsoft's delivery of the documentation grants any licenses under those or any other Microsoft patents. However, a given Open Specification may be covered by Microsoft [Open Specification Promise](#) or the [Community Promise](#). If you would prefer a written license, or if the technologies described in the Open Specifications 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).
- **Trademarks.** The names of companies and products contained in this documentation may be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights.
- **Fictitious Names.** The example companies, organizations, products, domain names, e-mail addresses, logos, people, places, and events 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 specifically described above, whether by implication, estoppel, or otherwise.

**Tools.** The Open Specifications do 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 are intended for use in conjunction with publicly available standard specifications and network programming art, and assumes that the reader either is familiar with the aforementioned material or has immediate access to it.

**Preliminary Documentation.** This Open Specification provides documentation for past and current releases and/or for the pre-release (beta) version of this technology. This Open Specification is final documentation for past or current releases as specifically noted in the document, as applicable; it is preliminary documentation for the pre-release (beta) versions. Microsoft will release final documentation in connection with the commercial release of the updated or new version of this technology. As the documentation may change between this preliminary version and the final version of this technology, there are risks in relying on preliminary documentation. To the extent that you incur additional development obligations or any other costs as a result of relying on this preliminary documentation, you do so at your own risk.

## Revision Summary

Date	Revision History	Revision Class	Comments
07/16/2012	0.1	New	Released new document.

# Table of Contents

<b>1 Introduction</b>	<b>6</b>
1.1 Glossary	6
1.2 References	6
1.2.1 Normative References	6
1.2.2 Informative References	7
1.3 Overview	7
1.4 Relationship to Other Protocols	7
1.5 Prerequisites/Preconditions	8
1.6 Applicability Statement	8
1.7 Versioning and Capability Negotiation	8
1.8 Vendor-Extensible Fields	8
1.9 Standards Assignments	8
<b>2 Messages</b>	<b>9</b>
2.1 Transport	9
2.2 Common Message Syntax	9
2.2.1 Namespaces	9
2.2.2 Messages	9
2.2.3 Elements	9
2.2.4 Complex Types	10
2.2.4.1 ArrayOfMailboxHoldStatusType	10
2.2.4.2 MailboxHoldResultType	10
2.2.4.3 MailboxHoldStatusType	11
2.2.5 Simple Types	11
2.2.5.1 HoldStatusType	11
2.2.6 Attributes	12
2.2.7 Groups	12
2.2.8 Attribute Groups	12
<b>3 Protocol Details</b>	<b>13</b>
3.1 ExchangeServicePortType Server Details	13
3.1.1 Abstract Data Model	13
3.1.2 Timers	13
3.1.3 Initialization	13
3.1.4 Message Processing Events and Sequencing Rules	13
3.1.4.1 GetHoldOnMailboxes	13
3.1.4.1.1 Messages	14
3.1.4.1.1.1 GetHoldOnMailboxesSoapIn	14
3.1.4.1.1.2 GetHoldOnMailboxesSoapOut	15
3.1.4.1.2 Elements	15
3.1.4.1.2.1 GetHoldOnMailboxes	15
3.1.4.1.2.2 GetHoldOnMailboxesResponse	16
3.1.4.1.3 Complex Types	16
3.1.4.1.3.1 GetHoldOnMailboxesType	16
3.1.4.1.3.2 GetHoldOnMailboxesResponseMessageType	16
3.1.4.1.4 Simple Types	17
3.1.4.1.5 Attributes	17
3.1.4.1.6 Groups	17
3.1.4.1.7 Attribute Groups	17
3.1.4.2 GetSearchableMailboxes	17

3.1.4.2.1	Messages .....	18
3.1.4.2.1.1	GetSearchableMailboxesSoapIn .....	18
3.1.4.2.1.2	GetSearchableMailboxesSoapOut .....	18
3.1.4.2.2	Elements .....	19
3.1.4.2.2.1	GetSearchableMailboxes .....	19
3.1.4.2.2.2	GetSearchableMailboxesResponse .....	19
3.1.4.2.3	Complex Types .....	19
3.1.4.2.3.1	GetSearchableMailboxesType .....	20
3.1.4.2.3.2	GetSearchableMailboxesResponseMessageType .....	20
3.1.4.2.3.3	ArrayOfSearchableMailboxesType .....	21
3.1.4.2.3.4	SearchableMailboxType .....	21
3.1.4.2.4	Simple Types .....	21
3.1.4.2.5	Attributes .....	22
3.1.4.2.6	Groups .....	22
3.1.4.2.7	Attribute Groups .....	22
3.1.4.3	GetUserHoldSettings .....	22
3.1.4.3.1	Messages .....	22
3.1.4.3.1.1	GetUserHoldSettingsSoapIn .....	23
3.1.4.3.1.2	GetUserHoldSettingsSoapOut .....	23
3.1.4.3.2	Elements .....	24
3.1.4.3.2.1	GetUserHoldSettings .....	24
3.1.4.3.2.2	GetUserHoldSettingsResponse .....	24
3.1.4.3.3	Complex Types .....	24
3.1.4.3.3.1	GetUserHoldSettingsType .....	24
3.1.4.3.3.2	GetUserHoldSettingsResponseMessageType .....	25
3.1.4.3.3.3	ArrayOfUserHoldSettingType .....	25
3.1.4.3.3.4	UserHoldSettingType .....	25
3.1.4.3.4	Simple Types .....	26
3.1.4.3.4.1	UserHoldStateType .....	26
3.1.4.3.5	Attributes .....	26
3.1.4.3.6	Groups .....	26
3.1.4.3.7	Attribute Groups .....	27
3.1.4.4	SearchMailboxes .....	27
3.1.4.4.1	Messages .....	27
3.1.4.4.1.1	SearchMailboxesSoapIn .....	27
3.1.4.4.1.2	SearchMailboxesSoapOut .....	28
3.1.4.4.2	Elements .....	28
3.1.4.4.2.1	SearchMailboxes .....	29
3.1.4.4.2.2	SearchMailboxesResponse .....	29
3.1.4.4.3	Complex Types .....	29
3.1.4.4.3.1	SearchMailboxesType .....	30
3.1.4.4.3.2	NonEmptyArrayOfMailboxQueriesType .....	31
3.1.4.4.3.3	MailboxQueryType .....	31
3.1.4.4.3.4	NonEmptyArrayOfMailboxSearchScopesType .....	31
3.1.4.4.3.5	MailboxSearchScopeType .....	32
3.1.4.4.3.6	PreviewItemResponseShapeType .....	32
3.1.4.4.3.7	NonEmptyArrayOfExtendedFieldURIsType .....	32
3.1.4.4.3.8	SearchMailboxesResponseType .....	33
3.1.4.4.3.9	BaseResponseMessageType .....	33
3.1.4.4.3.10	ArrayOfResponseMessagesType .....	33
3.1.4.4.3.11	SearchMailboxesResponseMessageType .....	34
3.1.4.4.3.12	SearchMailboxesResultType .....	34
3.1.4.4.3.13	ArrayOfKeywordStatisticsSearchResultsType .....	35

3.1.4.4.3.14	KeywordStatisticsSearchResultType .....	35
3.1.4.4.3.15	ArrayOfSearchPreviewItemsType .....	36
3.1.4.4.3.16	SearchPreviewItemType .....	36
3.1.4.4.3.17	PreviewItemMailboxType .....	37
3.1.4.4.3.18	ArrayOfFailedSearchMailboxesType .....	37
3.1.4.4.3.19	FailedSearchMailboxType .....	38
3.1.4.4.3.20	ArrayOfSearchRefinerItemsType .....	38
3.1.4.4.3.21	SearchRefinerItemType .....	38
3.1.4.4.3.22	ArrayOfMailboxStatisticsItemsType .....	39
3.1.4.4.3.23	MailboxStatisticsItemType .....	39
3.1.4.4.4	Simple Types .....	40
3.1.4.4.4.1	MailboxSearchLocationType .....	40
3.1.4.4.4.2	SearchResultType .....	40
3.1.4.4.4.3	PreviewItemBaseShapeType .....	41
3.1.4.4.4.4	SearchPageDirectionType .....	41
3.1.4.4.5	Attributes .....	42
3.1.4.4.6	Groups .....	42
3.1.4.4.7	Attribute Groups .....	42
3.1.4.5	SetHoldOnMailboxes .....	42
3.1.4.5.1	Messages .....	42
3.1.4.5.1.1	SetHoldOnMailboxesSoapIn .....	43
3.1.4.5.1.2	SetHoldOnMailboxesSoapOut .....	43
3.1.4.5.2	Elements .....	44
3.1.4.5.2.1	SetHoldOnMailboxes .....	44
3.1.4.5.2.2	SetHoldOnMailboxesResponse .....	44
3.1.4.5.3	Complex Types .....	44
3.1.4.5.3.1	SetHoldOnMailboxesType .....	44
3.1.4.5.3.2	SetHoldOnMailboxesResponseMessageType .....	45
3.1.4.5.4	Simple Types .....	46
3.1.4.5.4.1	HoldActionType .....	46
3.1.4.5.5	Attributes .....	46
3.1.4.5.6	Groups .....	46
3.1.4.5.7	Attribute Groups .....	46
3.1.5	Timer Events .....	46
3.1.6	Other Local Events .....	46
<b>4</b>	<b>Protocol Examples .....</b>	<b>47</b>
<b>5</b>	<b>Security .....</b>	<b>48</b>
5.1	Security Considerations for Implementers .....	48
5.2	Index of Security Parameters .....	48
<b>6</b>	<b>Appendix A: Full WSDL .....</b>	<b>49</b>
<b>7</b>	<b>Appendix B: Full XML Schema .....</b>	<b>52</b>
7.1	<a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a> Schema .....	52
7.2	<a href="http://schemas.microsoft.com/exchange/services/2006/types">http://schemas.microsoft.com/exchange/services/2006/types</a> Schema .....	54
<b>8</b>	<b>Appendix C: Product Behavior .....</b>	<b>60</b>
<b>9</b>	<b>Change Tracking .....</b>	<b>61</b>
<b>10</b>	<b>Index .....</b>	<b>62</b>

# 1 Introduction

The Electronic Discovery (eDiscovery) Web Service Protocol enables clients to use a web service to implement legal compliance holds, get user hold settings, and search for **mailboxes**.

Sections 1.8, 2, and 3 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in RFC 2119. Sections 1.5 and 1.9 are also normative but cannot contain those terms. All other sections and examples in this specification are informative.

## 1.1 Glossary

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

**Hypertext Transfer Protocol (HTTP)**  
**Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**

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

**electronic discovery (eDiscovery)**  
**endpoint**  
**mailbox**  
**Simple Object Access Protocol (SOAP)**  
**SOAP action**  
**SOAP body**  
**SOAP header**  
**Web Services Description Language (WSDL)**  
**WSDL message**  
**WSDL operation**  
**WSDL port type**  
**XML namespace**  
**XML namespace prefix**  
**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

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical documents, which are updated frequently. References to other documents include a publishing year when one is available.

### 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](#)".

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

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

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

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

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

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

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

### 1.2.2 Informative References

[MS-GLOS] Microsoft Corporation, "[Windows Protocols Master Glossary](#)".

[MS-OXDCLI] Microsoft Corporation, "[Autodiscover Publishing and Lookup Protocol Specification](#)".

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

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

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

### 1.3 Overview

The eDiscovery Web Service Protocol is a federated query web service that enables external applications to perform queries of mailbox data.

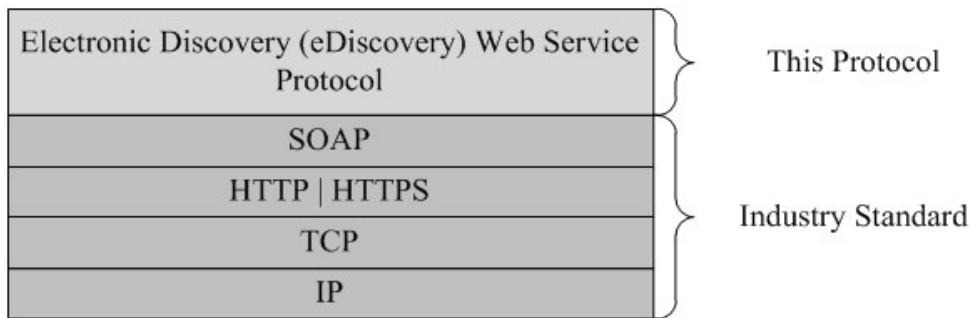
Discovery consists of several phases, including identifying and preserving key data, reducing the amount of data, reviewing the data, and producing data in court. **Electronic discovery (eDiscovery)** queries facilitate the discovery process by providing a single discovery workflow.

### 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 [\[MS-OXDCLI\]](#), to identify the target **endpoint (4)** to use for each operation.

This protocol uses the SOAP Protocol, as described in [\[SOAP1.1\]](#), to specify the structure information that is exchanged between the client and the server. This protocol uses the XML Protocol, as described in [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#), to describe the message content that is sent to and from the server.

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



**Figure 1: This protocol in relation to other protocols**

## 1.5 Prerequisites/Preconditions

The endpoint (4) URL that is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol, as specified in [\[MS-OXWSADISC\]](#), or the Autodiscover Publishing and Lookup Protocol, as specified in [\[MS-OXDSCLI\]](#), is required to form the HTTP request to the web server that hosts this protocol. The operations that this protocol defines cannot be accessed unless the correct endpoint (4) is identified in the HTTP web requests that target this protocol.

## 1.6 Applicability Statement

This protocol is applicable to environments that use web services to implement electronic discovery from a user's mailbox. This protocol is applicable to all SOAP-based clients, as described in [\[SOAP1.1\]](#).

## 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 port type** version. The **WSDL** version of the request is identified by using the **t:RequestServerVersion** element, as described in [\[MS-OXWSCDATA\]](#) section 2.2.5.9, and the version of the server responding to the request is identified by using the **t:ServerVersionInfo** element, as described in [\[MS-OXWSCDATA\]](#) section 2.2.5.10.
- **Security and Authentication Methods:** This protocol relies on the web server that is hosting it to perform authentication.
- **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

The SOAP version used for this protocol is SOAP 1.1, as specified in [\[SOAP1.1\]](#).

This protocol relies on the web server that hosts the application to perform authentication. The protocol SHOULD use secure communications by means of HTTPS, as defined in [\[RFC2818\]](#).

### 2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as defined in [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#), and Web Services Description Language (WSDL), as defined in [\[WSDL\]](#).

#### 2.2.1 Namespaces

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

Prefix	Namespace URI	Reference
m	<a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a>	
soap	<a href="http://schemas.xmlsoap.org/wsdl/soap/">http://schemas.xmlsoap.org/wsdl/soap/</a>	<a href="#">[SOAP1.1]</a>
t	<a href="http://schemas.microsoft.com/exchange/services/2006/types">http://schemas.microsoft.com/exchange/services/2006/types</a>	
wsdl	<a href="http://schemas.xmlsoap.org/wsdl/">http://schemas.xmlsoap.org/wsdl/</a>	<a href="#">[WSDL]</a>
wsi	<a href="http://ws-i.org/schemas/conformanceClaim/">http://ws-i.org/schemas/conformanceClaim/</a>	
xs	<a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>	<a href="#">[XMLSCHEMA1]</a> <a href="#">[XMLSCHEMA2]</a>

#### 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

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

Complex type	Description
ArrayOfMailboxHoldStatusType	The <b>ArrayOfMailboxHoldStatusType</b> complex type specifies an array of mailbox hold statuses.
MailboxHoldResultType	The <b>MailboxHoldResultType</b> complex type specifies the mailbox hold result.
MailboxHoldStatusType	The <b>MailboxHoldStatusType</b> complex type specifies the mailbox hold status.

### 2.2.4.1 ArrayOfMailboxHoldStatusType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/types>

The **ArrayOfMailboxHoldStatusType** complex type specifies an array of mailbox hold statuses.

```
<xs:complexType name="ArrayOfMailboxHoldStatusType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="MailboxHoldStatus"
type="t:MailboxHoldStatusType"/>
  </xs:sequence>
</xs:complexType>
```

**MailboxHoldStatus:** Contains a value for the hold status of the mailbox.

### 2.2.4.2 MailboxHoldResultType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/types>

The **MailboxHoldResultType** complex type specifies the mailbox hold result.

```
<xs:complexType name="MailboxHoldResultType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element name="HoldId" type="xs:string"/>
    <xs:element minOccurs="0" name="Query" type="xs:string"/>
    <xs:element name="MailboxHoldStatuses" type="t:ArrayOfMailboxHoldStatusType"/>
  </xs:sequence>
</xs:complexType>
```

**HoldId:** Represents the hold identifier.

**Query:** Represents a search query.

**MailboxHoldStatuses:** Contains a list of one or more **MailboxHoldStatus** elements.

### 2.2.4.3 MailboxHoldStatusType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **MailboxHoldStatusType** complex type specifies the mailbox hold status.

```
<xs:complexType name="MailboxHoldStatusType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Mailbox" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Status" type="t:HoldStatusType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="AdditionalInfo" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

**Mailbox:** Contains an identifier for the mailbox.

**Status:** Contains the hold status for a mailbox.

**AdditionalInfo:** Represents additional information.

### 2.2.5 Simple Types

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

Simple type	Description
HoldStatusType	The <b>HoldStatusType</b> simple type specifies the hold status.

#### 2.2.5.1 HoldStatusType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **HoldStatusType** simple type specifies the hold status.

```
<xs:simpleType name="HoldStatusType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NotOnHold"/>
    <xs:enumeration value="Pending"/>
    <xs:enumeration value="OnHold"/>
    <xs:enumeration value="PartialHold"/>
    <xs:enumeration value="Failed"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for **HoldStatusType**.

Value	Meaning
NotOnHold	The mailbox is not on hold.
Pending	Placing or releasing a hold is in-progress.

<b>Value</b>	<b>Meaning</b>
OnHold	The hold was successfully applied to the mailbox.
PartialHold	The hold was partially applied to the mailbox.
Failed	The hold failed to apply to the mailbox.

### **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

In the following sections, the schema definition might be less restrictive than the processing rules imposed by the protocol. The WSDL in this specification matches the WSDL that shipped with the product and provides a base description of the schema. The text that introduces the WSDL specifies additional restrictions that reflect actual Microsoft product 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 and present.

### 3.1 ExchangeServicePortType Server Details

This protocol defines a single WSDL port type.

#### 3.1.1 Abstract Data Model

None.

#### 3.1.2 Timers

None.

#### 3.1.3 Initialization

None.

#### 3.1.4 Message Processing Events and Sequencing Rules

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

Operation	Description
GetHoldOnMailboxes	The <b>GetHoldOnMailboxes</b> operation retrieves the status of a query-based hold, which is set by using the <b>SetHoldOnMailboxes</b> operation, as specified in section <a href="#">3.1.4.5</a> .
GetSearchableMailboxes	The <b>GetSearchablemailboxes</b> operation retrieves a list of mailboxes on which the client has permission to search or perform eDiscovery.
GetUserHoldSettings	The <b>GetUserHoldSettings</b> operation retrieves user hold settings.
SearchMailboxes	The <b>SearchMailboxes</b> operation searches for items in the specified mailboxes that match query keywords.
SetHoldOnMailboxes	The <b>SetHoldOnMailboxes</b> sets a query-based hold on mailboxes.

##### 3.1.4.1 GetHoldOnMailboxes

The **GetHoldOnMailboxes** operation retrieves the status of a query-based hold, which is set by using the **SetHoldOnMailboxes** operation, as specified in section [3.1.4.5](#).

```
<wsdl:operation name="GetHoldOnMailboxes" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:GetHoldOnMailboxesSoapIn"/>
  <wsdl:output message="m:GetHoldOnMailboxesSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **GetHoldOnMailboxes** operation.

```
<wsdl:operation name="GetHoldOnMailboxes" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetHoldOnMailboxes"
    xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  <wsdl:input>
    <soap:header message="m:GetHoldOnMailboxesSoapIn" part="RequestVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:GetHoldOnMailboxesSoapIn" part="ManagementRole" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:body use="literal" parts="request"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="GetHoldOnMailboxesResult"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:GetHoldOnMailboxesSoapOut" part="ServerVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:output>
</wsdl:operation>
```

### 3.1.4.1.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to this operation.

Message	Description
GetHoldOnMailboxesSoapIn	Specifies the request to retrieve a hold on mailboxes.
GetHoldOnMailboxesSoapOut	Specifies the response to the <b>GetHoldOnMailboxesSoapIn</b> request.

#### 3.1.4.1.1.1 GetHoldOnMailboxesSoapIn

The **GetHoldOnMailboxesSoapIn** WSDL message specifies the request to retrieve a hold on mailboxes.

The following is the **GetHoldOnMailboxes** WSDL message specification.

```
<wsdl:message name="GetHoldOnMailboxesSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:GetHoldOnMailboxes"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
request	m:GetHoldOnMailboxes (section <a href="#">3.1.4.1.2.1</a> )	Specifies the <b>SOAP body</b> of the request containing the information that is required to query for availability.

Part name	Element/type	Description
RequestVersion	t:RequestServerVersion ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.9)	Specifies a <b>SOAP header</b> that identifies the schema version for the <b>GetHoldOnMailboxes</b> operation request. <1>
ManagementRole	t:ManagementRole ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.7)	Specifies a SOAP header that identifies a user or application role.

### 3.1.4.1.1.2 GetHoldOnMailboxesSoapOut

The **GetHoldOnMailboxesSoapOut** WSDL message specifies the response to the **GetHoldOnMailboxesSoapIn** request.

The following is the **GetHoldOnMailboxes** WSDL message specification.

```
<wsdl:message name="GetHoldOnMailboxesSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetHoldOnMailboxesResult" element="m:GetHoldOnMailboxesResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
GetHoldOnMailboxesResult	m:GetHoldOnMailboxesResponse (section <a href="#">3.1.4.1.2.2</a> )	Specifies the SOAP body of the response that contains the requested availability information.
ServerVersion	t:ServerVersionInfo ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response.

### 3.1.4.1.2 Elements

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

Element	Description
GetHoldOnMailboxes	The input data for the <b>GetHoldOnMailboxes WSDL operation</b> .
GetHoldOnMailboxesResponse	The result data for the <b>GetHoldOnMailboxes WSDL operation</b> .

#### 3.1.4.1.2.1 GetHoldOnMailboxes

The input data for the **GetHoldOnMailboxes** WSDL operation.

```
<xs:element name="GetHoldOnMailboxes" type="m:GetHoldOnMailboxesType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

### 3.1.4.1.2.2 GetHoldOnMailboxesResponse

The result data for the **GetHoldOnMailboxes** WSDL operation.

```
<xs:element name="GetHoldOnMailboxesResponse" type="m:GetHoldOnMailboxesResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

### 3.1.4.1.3 Complex Types

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

Complex type	Description
GetHoldOnMailboxesType	Specifies a request to retrieve a hold on mailboxes.
GetHoldOnMailboxesResponseMessageType	Specifies the response message for a <b>GetHoldOnMailboxes</b> operation.

#### 3.1.4.1.3.1 GetHoldOnMailboxesType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **GetHoldOnMailboxesType** complex type specifies a request to retrieve a hold on mailboxes.

```
<xs:complexType name="GetHoldOnMailboxesType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" name="HoldId" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

**HoldId:** Represents the identifier of the query-based hold to be queried.

#### 3.1.4.1.3.2 GetHoldOnMailboxesResponseMessageType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **GetHoldOnMailboxesResponseMessageType** complex type specifies the response message for a **GetHoldOnMailboxes** operation.

```
<xs:complexType name="GetHoldOnMailboxesResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" name="MailboxHoldResult" type="t:MailboxHoldResultType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```



```
</xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>
```

**MailboxHoldResult:** Represents the object that contains the hold result information.

#### 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 GetSearchableMailboxes

The **GetSearchablemailboxes** operation retrieves a list of mailboxes on which the client has permission to search or perform eDiscovery.

```
<wsdl:operation name="GetSearchableMailboxes" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:GetSearchableMailboxesSoapIn"/>
  <wsdl:output message="m:GetSearchableMailboxesSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **GetSearchableMailboxes** operation.

```
<wsdl:operation name="GetSearchableMailboxes" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetSearchableMailboxes"
    xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  <wsdl:input>
    <soap:header message="m:GetSearchableMailboxesSoapIn" part="RequestVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:GetSearchableMailboxesSoapIn" part="ManagementRole" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:body use="literal" parts="request"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="GetSearchableMailboxesResult"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:GetSearchableMailboxesSoapOut" part="ServerVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:output>
</wsdl:operation>
```

### 3.1.4.2.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to this operation.

Message	Description
GetSearchableMailboxesSoapIn	Specifies the request to retrieve searchable mailboxes.
GetSearchableMailboxesSoapOut	Specifies the response to the <b>GetSearchableMailboxesSoapIn</b> request.

#### 3.1.4.2.1.1 GetSearchableMailboxesSoapIn

The **GetSearchableMailboxesSoapIn** WSDL message specifies the request to retrieve searchable mailboxes.

The following is the **GetSearchableMailboxes** WSDL message specification.

```
<wsdl:message name="GetSearchableMailboxesSoapIn"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:GetSearchableMailboxes"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
request	m:GetSearchableMailboxes (section <a href="#">3.1.4.2.2.1</a> )	Specifies the SOAP body of the request containing the information that is required to query for availability.
RequestVersion	t:RequestServerVersion ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for the <b>GetSearchableMailboxes</b> operation request. <2>
ManagementRole	t:ManagementRole ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.7)	Specifies a SOAP header that identifies a user or application role.

#### 3.1.4.2.1.2 GetSearchableMailboxesSoapOut

The **GetSearchableMailboxesSoapOut** WSDL message specifies the response to the **GetSearchableMailboxesSoapIn** request.

The following is the **GetSearchableMailboxes** WSDL message specification.

```
<wsdl:message name="GetSearchableMailboxesSoapOut"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetSearchableMailboxesResult" element="m:GetSearchableMailboxesResponse"/>
</wsdl:message>
```

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

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

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

Part name	Element/type	Description
GetSearchableMailboxesResult	m:GetSearchableMailboxesResponse (section <a href="#">3.1.4.2.2.2</a> )	Specifies the SOAP body of the response that contains the requested availability information.
ServerVersion	t:ServerVersionInfo ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response.

### 3.1.4.2.2 Elements

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

Element	Description
GetSearchableMailboxes	The input data for the <b>GetSearchableMailboxes</b> WSDL operation.
GetSearchableMailboxesResponse	The result data for the <b>GetSearchableMailboxes</b> WSDL operation.

#### 3.1.4.2.2.1 GetSearchableMailboxes

The input data for the **GetSearchableMailboxes** WSDL operation.

```
<xs:element name="GetSearchableMailboxes" type="m:GetSearchableMailboxesType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

#### 3.1.4.2.2.2 GetSearchableMailboxesResponse

The result data for the **GetSearchableMailboxes** WSDL operation.

```
<xs:element name="GetSearchableMailboxesResponse"
type="m:GetSearchableMailboxesResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

### 3.1.4.2.3 Complex Types

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

Complex type	Description
GetSearchableMailboxesType	Specifies a request to retrieve searchable mailboxes.
GetSearchableMailboxesResponseMessageType	Specifies the response for a <b>GetSearchableMailboxes</b> operation.
ArrayOfSearchableMailboxesType	Specifies an array of mailbox entities returned from the <b>GetSearchableMailboxes</b> operation.
SearchableMailboxType	Specifies the mailbox entity returned from the <b>GetSearchableMailboxes</b> operation.

### 3.1.4.2.3.1 GetSearchableMailboxesType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **GetSearchableMailboxesType** complex type specifies a request to retrieve searchable mailboxes.

```
<xs:complexType name="GetSearchableMailboxesType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="0" name="SearchFilter" type="xs:string"/>
        <xs:element minOccurs="0" name="ExpandGroupMembership" type="xs:boolean"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

**SearchFilter:** Represents a search filter. This element can be empty or contain a specific email address, display name, or other property of the mailbox.

**ExpandGroupMembership:** Contains a Boolean value that indicates whether to expand the group membership if the instance is a distribution group.

### 3.1.4.2.3.2 GetSearchableMailboxesResponseMessageType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **GetSearchableMailboxesResponseMessageType** complex type specifies the response for a **GetSearchableMailboxes** operation.

```
<xs:complexType name="GetSearchableMailboxesResponseMessageType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element name="SearchableMailboxes" type="t:ArrayOfSearchableMailboxesType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

**SearchableMailboxes:** Represents the object that contains the mailboxes or distribution groups that match the query filter.

### 3.1.4.2.3.3 ArrayOfSearchableMailboxesType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **ArrayOfSearchableMailboxesType** complex type specifies an array of mailbox entities returned from the **GetSearchableMailboxes** operation.

```
<xs:complexType name="ArrayOfSearchableMailboxesType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="SearchableMailbox"
      type="t:SearchableMailboxType"/>
  </xs:sequence>
</xs:complexType>
```

**SearchableMailbox:** Represents the mailbox entity returned from the **GetSearchableMailboxes** operation.

### 3.1.4.2.3.4 SearchableMailboxType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **SearchableMailboxType** complex type specifies the mailbox entity returned from the **GetSearchableMailboxes** operation.

```
<xs:complexType name="SearchableMailboxType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Guid" type="t:GuidType"/>
    <xs:element minOccurs="1" maxOccurs="1" name="PrimarySmtpAddress" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="DisplayName" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="IsMembershipGroup" type="xs:boolean"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ReferenceId" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

**Guid:** Contains the GUID of the mailbox.

**PrimarySmtpAddress:** Represents the primary SMTP address of the mailbox.

**DisplayName:** Contains a string specifying the name of the mailbox.

**IsMembershipGroup:** Contains a Boolean value indicating whether the entity is a mailbox or a distribution group. True indicates a distribution group; otherwise, false.

**ReferenceId:** Contains the reference identifier for the mailbox.

### 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.

### 3.1.4.3 GetUserHoldSettings

The **GetUserHoldSettings** operation retrieves user hold settings.

```
<wsdl:operation name="GetUserHoldSettings" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:GetUserHoldSettingsSoapIn"/>
  <wsdl:output message="m:GetUserHoldSettingsSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **GetUserHoldSettings** operation.

```
<wsdl:operation name="GetUserHoldSettings" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetUserHoldSettings"
    xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  <wsdl:input>
    <soap:header message="m:GetUserHoldSettingsSoapIn" part="RequestVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:GetUserHoldSettingsSoapIn" part="ManagementRole" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:body use="literal" parts="request"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="GetUserHoldSettingsResult"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:GetUserHoldSettingsSoapOut" part="ServerVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:output>
</wsdl:operation>
```

#### 3.1.4.3.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to this operation.

Message	Description
GetUserHoldSettingsSoapIn	Specifies the request to retrieve user hold settings.
GetUserHoldSettingsSoapOut	Specifies the response to the <b>GetUserHoldSettingsSoapIn</b> request.

### 3.1.4.3.1.1 GetUserHoldSettingsSoapIn

The **GetUserHoldSettingsSoapIn** WSDL message specifies the request to retrieve user hold settings.

The following is the **GetUserHoldSettings** WSDL message specification.

```
<wsdl:message name="GetUserHoldSettingsSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:GetUserHoldSettings"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
request	m:GetUserHoldSettings (section <a href="#">3.1.4.3.2.1</a> )	Specifies the SOAP body of the request containing the information that is required to query for availability.
RequestVersion	t:RequestServerVersion ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for the <b>GetUserHoldSettings</b> operation request. <a href="#">&lt;3&gt;</a>
ManagementRole	t:ManagementRole ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.7)	Specifies a SOAP header that identifies a user or application role.

### 3.1.4.3.1.2 GetUserHoldSettingsSoapOut

The **GetUserHoldSettingsSoapOut** WSDL message specifies the response to the **GetUserHoldSettingsSoapIn** request.

The following is the **GetUserHoldSettings** WSDL message specification.

```
<wsdl:message name="GetUserHoldSettingsSoapOut"
  xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetUserHoldSettingsResult" element="m:GetUserHoldSettingsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
GetUserHoldSettingsResult	m:GetUserHoldSettingsResponse (section <a href="#">3.1.4.3.2.2</a> )	Specifies the SOAP body of the response that contains the requested availability information.

Part name	Element/type	Description
ServerVersion	t:ServerVersionInfo ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response.

### 3.1.4.3.2 Elements

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

Element	Description
GetUserHoldSettings	The input data for the <b>GetUserHoldSettings</b> WSDL operation.
GetUserHoldSettingsResponse	The result data for the <b>GetUserHoldSettings</b> WSDL operation.

#### 3.1.4.3.2.1 GetUserHoldSettings

The input data for the **GetUserHoldSettings** WSDL operation.

```
<xs:element name="GetUserHoldSettings" type="m:GetUserHoldSettingsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

#### 3.1.4.3.2.2 GetUserHoldSettingsResponse

The result data for the **GetUserHoldSettings** WSDL operation.

```
<xs:element name="GetUserHoldSettingsResponse"
type="m:GetUserHoldSettingsResponseMessageType" xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

### 3.1.4.3.3 Complex Types

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

Complex type	Description
GetUserHoldSettingsType	Specifies a request to retrieve user hold settings.
GetUserHoldSettingsResponseMessageType	Specifies the response for a <b>GetUserHoldSettings</b> operation.
ArrayOfUserHoldSettingType	Specifies an array of <b>UserHoldSetting</b> elements.
UserHoldSettingType	Specifies a user hold setting.

#### 3.1.4.3.3.1 GetUserHoldSettingsType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/messages>

The **GetUserHoldSettingsType** complex type specifies a request to retrieve user hold settings.



```

<xs:complexType name="GetUserHoldSettingsType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" name="SmtpAddresses" type="t:ArrayOfSmtpAddressType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

**SmtpAddresses:** Represents the SMTP addresses of the users.

### 3.1.4.3.3.2 GetUserHoldSettingsResponseMessageType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **GetUserHoldSettingsResponseMessageType** complex type specifies the response for a **GetUserHoldSettings** operation.

```

<xs:complexType name="GetUserHoldSettingsResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="UserHoldSettings"
type="t:ArrayOfUserHoldSettingType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

**UserHoldSettings:** Represents the user hold settings.

### 3.1.4.3.3.3 ArrayOfUserHoldSettingType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **ArrayOfUserHoldSettingType** complex type specifies an array of **UserHoldSetting** elements.

```

<xs:complexType name="ArrayOfUserHoldSettingType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="UserHoldSetting"
type="t:UserHoldSettingType"/>
  </xs:sequence>
</xs:complexType>

```

**UserHoldSetting:** Represents a single user hold setting.

### 3.1.4.3.3.4 UserHoldSettingType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **UserHoldSettingType** complex type specifies a user hold setting.

```

<xs:complexType name="UserHoldSettingType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="SmtpAddress" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="UserState" type="t:UserHoldStateType"/>
  </xs:sequence>
</xs:complexType>

```

**SmtpAddress:** Represents the SMTP address of the user.

**UserState:** Represents the state of the user's mailbox.

### 3.1.4.3.4 Simple Types

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

Simple type	Description
UserHoldStateType	Indicates the hold state of a user's mailbox.

#### 3.1.4.3.4.1 UserHoldStateType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/types>

The **UserHoldStateType** simple type indicates the hold state of a user's mailbox.

```

<xs:simpleType name="UserHoldStateType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="UserNotOnHold"/>
    <xs:enumeration value="UserOnHold"/>
    <xs:enumeration value="UserNotFound"/>
  </xs:restriction>
</xs:simpleType>

```

The following table specifies the allowable values for **UserHoldStateType**.

Value	Meaning
UserNotOnHold	User's mailbox is not on hold.
UserOnHold	User's mailbox is on hold.
UserNotFound	User's mailbox not found.

#### 3.1.4.3.5 Attributes

None.

#### 3.1.4.3.6 Groups

None.

### 3.1.4.3.7 Attribute Groups

None.

### 3.1.4.4 SearchMailboxes

The **SearchMailboxes** operation searches for items in the specified mailboxes that match query keywords.

```
<wsdl:operation name="SearchMailboxes" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:SearchMailboxesSoapIn"/>
  <wsdl:output message="m:SearchMailboxesSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **SearchMailboxes** operation.

```
<wsdl:operation name="SearchMailboxes" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SearchMailboxes"
    xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  <wsdl:input>
    <soap:header message="m:SearchMailboxesSoapIn" part="RequestVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:SearchMailboxesSoapIn" part="ManagementRole" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:body use="literal" parts="request"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="SearchMailboxesResult"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:SearchMailboxesSoapOut" part="ServerVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:output>
</wsdl:operation>
```

#### 3.1.4.4.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to this operation.

Message	Description
SearchMailboxesSoapIn	Specifies the request to search mailboxes.
SearchMailboxesSoapOut	Specifies the response to the <b>SearchMailboxesSoapIn</b> request.

##### 3.1.4.4.1.1 SearchMailboxesSoapIn

The **SearchMailboxesSoapIn** WSDL message specifies the request to search mailboxes.

The following is the **SearchMailboxes** WSDL message specification.

```
<wsdl:message name="SearchMailboxesSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:SearchMailboxes"/>
</wsdl:message>
```

```

    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>

```

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

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

Part name	Element/type	Description
request	m:SearchMailboxes (section <a href="#">3.1.4.4.2.1</a> )	Specifies the SOAP body of the request containing the information that is required to query for availability.
RequestVersion	t:RequestServerVersion ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for the <b>SearchMailboxes</b> operation request. <4>
ManagementRole	t:ManagementRole ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.7)	Specifies a SOAP header that identifies a user or application role.

### 3.1.4.4.1.2 SearchMailboxesSoapOut

The **SearchMailboxesSoapOut** WSDL message specifies the response to the **SearchMailboxesSoapIn** request.

The following is the **SearchMailboxes** WSDL message specification.

```

<wsdl:message name="SearchMailboxesSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="SearchMailboxesResult" element="m:SearchMailboxesResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>

```

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

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

Part name	Element/type	Description
SearchMailboxesResult	m:SearchMailboxesResponse (section <a href="#">3.1.4.4.2.2</a> )	Specifies the SOAP body of the response that contains the requested availability information.
ServerVersion	t:ServerVersionInfo ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.10)	Specifies a SOAP header that identifies the server version for the response.

### 3.1.4.4.2 Elements

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

Element	Description
SearchMailboxes	The input data for the <b>SearchMailboxes</b> WSDL operation.
SearchMailboxesResponse	The result data for the <b>SearchMailboxes</b> WSDL operation.

### 3.1.4.4.2.1 SearchMailboxes

The input data for the **SearchMailboxes** WSDL operation.

```
<xs:element name="SearchMailboxes" type="m:SearchMailboxesType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

### 3.1.4.4.2.2 SearchMailboxesResponse

The result data for the **SearchMailboxes** WSDL operation.

```
<xs:element name="SearchMailboxesResponse" type="m:SearchMailboxesResponseType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

### 3.1.4.4.3 Complex Types

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

Complex type	Description
SearchMailboxesType	Specifies a combination of mailbox and search scope.
NonEmptyArrayOfMailboxQueriesType	Specifies an array of mailbox queries.
MailboxQueryType	Specifies the type of the mailbox query.
NonEmptyArrayOfMailboxSearchScopesType	Specifies an array of mailbox search scopes.
MailboxSearchScopeType	Specifies a mailbox search scope.
PreviewItemResponseShapeType	Specifies the response shape of a preview item, that is, the base shape plus properties.
NonEmptyArrayOfExtendedFieldURIsType	Specifies an array of extended property names.
SearchMailboxesResponseType	Specifies the response for a <b>SearchMailboxes</b> operation.
BaseResponseMessageType	Specifies a base response message for all Exchange Web Services (EWS) operations.
ArrayOfResponseMessagesType	Specifies an array of response messages.
SearchMailboxesResponseMessageType	Specifies a response message for the <b>SearchMailboxes</b> operation.
SearchMailboxesResultType	Specifies the result from the <b>SearchMailboxes</b> operation.
ArrayOfKeywordStatisticsSearchResultsType	Specifies an array of keyword statistics in the search result.

Complex type	Description
KeywordStatisticsSearchResultType	Specifies a keyword statistics search result.
ArrayOfSearchPreviewItemsType	Specifies an array of search preview items.
SearchPreviewItemType	Specifies a search preview item.
PreviewItemMailboxType	Specifies the mailbox information in a preview item.
ArrayOfFailedSearchMailboxesType	Specifies an array of failed mailboxes.
FailedSearchMailboxType	Specifies a failed mailbox.
ArrayOfSearchRefinerItemsType	Specifies an array of search refiner items.
SearchRefinerItemType	Specifies a search refiner item.
ArrayOfMailboxStatisticsItemsType	Specifies an array of mailbox statistics.
MailboxStatisticsItemType	Specifies a mailbox statistic.

### 3.1.4.4.3.1 SearchMailboxesType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **SearchMailboxesType** complex type specifies a combination of mailbox and search scope.

```
<xs:complexType name="SearchMailboxesType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" name="SearchQueries"
type="t:NonEmptyArrayOfMailboxQueriesType"/>
        <xs:element minOccurs="1" name="ResultType" type="t:SearchResultType"/>
        <xs:element minOccurs="0" name="PreviewItemResponseShape"
type="t:PreviewItemResponseShapeType"/>
        <xs:element minOccurs="0" name="SortBy" type="t:FieldOrderType"/>
        <xs:element minOccurs="0" name="Language" type="xs:string"/>
        <xs:element minOccurs="0" name="Deduplication" type="xs:boolean"/>
        <xs:element minOccurs="0" name="WordStemming" type="xs:boolean"/>
        <xs:element minOccurs="0" name="NearMisspellings" type="xs:boolean"/>
        <xs:element minOccurs="0" name="PageSize" type="xs:int"/>
        <xs:element minOccurs="0" name="PageItemReference" type="xs:string"/>
        <xs:element minOccurs="0" name="PageDirection" type="t:SearchPageDirectionType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

**SearchQueries:** Represents a set of mailbox search scopes.

**ResultType:** Represents an enumeration type to indicate the type of search result.

**PreviewItemResponseShape:** Represents the response shape (that is, what properties are returned) for the preview search result.

**SortBy:**

**Language:** Represents the query language, for example, "en-us".

**Deduplication:** Contains a Boolean value that indicates whether to remove duplicates from the search result.

**WordStemming:**

**NearMisspellings:**

**PageSize:** Represents the total number of items shown on a preview page.

**PageItemReference:** Used internally for paging implementation.

**PageDirection:** Represents the paging direction, for example, "previous" or "next".

#### 3.1.4.4.3.2 NonEmptyArrayOfMailboxQueriesType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **NonEmptyArrayOfMailboxQueriesType** complex type specifies an array of mailbox queries.

```
<xs:complexType name="NonEmptyArrayOfMailboxQueriesType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="unbounded" name="MailboxQuery"
      type="t:MailboxQueryType"/>
  </xs:sequence>
</xs:complexType>
```

**MailboxQuery:** Represents a mailbox query, that is, a combination of a query and a list of mailboxes.

#### 3.1.4.4.3.3 MailboxQueryType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **MailboxQueryType** complex type specifies the type of the mailbox query.

```
<xs:complexType name="MailboxQueryType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Query" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="MailboxSearchScopes"
      type="t:NonEmptyArrayOfMailboxSearchScopesType"/>
  </xs:sequence>
</xs:complexType>
```

**Query:** Identifies a search query.

**MailboxSearchScopes:** Contains a list of one or more **MailboxSearchScope** elements.

#### 3.1.4.4.3.4 NonEmptyArrayOfMailboxSearchScopesType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **NonEmptyArrayOfMailboxSearchScopesType** complex type specifies an array of mailbox search scopes.

```

<xs:complexType name="NonEmptyArrayOfMailboxSearchScopesType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="unbounded" name="MailboxSearchScope"
type="t:MailboxSearchScopeType"/>
  </xs:sequence>
</xs:complexType>

```

**MailboxSearchScope:** Represents a mailbox search scope, that is, a combination of a mailbox and a search scope.

### 3.1.4.4.3.5 MailboxSearchScopeType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **MailboxSearchScopeType** complex type specifies a query and a set of mailboxes.

```

<xs:complexType name="MailboxSearchScopeType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Mailbox" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="SearchScope"
type="t:MailboxSearchLocationType"/>
  </xs:sequence>
</xs:complexType>

```

**Mailbox:** Contains an identifier for the mailbox.

**SearchScope:** Represents the search scope.

### 3.1.4.4.3.6 PreviewItemResponseShapeType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **PreviewItemResponseShapeType** complex type specifies the response shape of a preview item, that is, the base shape plus properties.

```

<xs:complexType name="PreviewItemResponseShapeType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="BaseShape"
type="t:PreviewItemBaseShapeType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="AdditionalProperties"
type="t:NonEmptyArrayOfExtendedFieldURIsType"/>
  </xs:sequence>
</xs:complexType>

```

**BaseShape:** Represents either the default preview with all properties returned or a compact preview with fewer properties returned.

**AdditionalProperties:** Represents additional item properties to be returned.

### 3.1.4.4.3.7 NonEmptyArrayOfExtendedFieldURIsType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types



The **NonEmptyArrayOfExtendedFieldURIsType** complex type specifies an array of extended property names.

```
<xs:complexType name="NonEmptyArrayOfExtendedFieldURIsType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:choice maxOccurs="unbounded">
    <xs:element name="ExtendedFieldURI" type="t:PathToExtendedFieldType"/>
  </xs:choice>
</xs:complexType>
```

**ExtendedFieldURI:** Represents the extended property name.

### 3.1.4.4.3.8 SearchMailboxesResponseType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **SearchMailboxesResponseType** complex type specifies a response for a **SearchMailboxes** operation.

```
<xs:complexType name="SearchMailboxesResponseType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseResponseMessageType"/>
  </xs:complexContent>
</xs:complexType>
```

### 3.1.4.4.3.9 BaseResponseMessageType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **BaseResponseMessageType** complex type specifies a base response message for all Exchange Web Services (EWS) operations.

```
<xs:complexType name="BaseResponseMessageType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element name="ResponseMessages" type="m:ArrayOfResponseMessagesType"/>
  </xs:sequence>
</xs:complexType>
```

**ResponseMessages:** Represents response messages.

### 3.1.4.4.3.10 ArrayOfResponseMessagesType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **ArrayOfResponseMessagesType** complex type specifies an array of response messages.

```
<xs:complexType name="ArrayOfResponseMessagesType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:choice maxOccurs="unbounded">
    <xs:element name="SearchMailboxesResponseMessage"
      type="m:SearchMailboxesResponseMessageType"/>
  </xs:choice>
```

```
</xs:complexType>
```

**SearchMailboxesResponseMessage:** Represents a single response message for the **SearchMailboxes** operation.

#### 3.1.4.4.3.11 SearchMailboxesResponseMessageType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **SearchMailboxesResponseMessageType** complex type specifies a response message for the **SearchMailboxes** operation.

```
<xs:complexType name="SearchMailboxesResponseMessageType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" name="SearchMailboxesResult"
          type="t:SearchMailboxesResultType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

**SearchMailboxesResult:** Represents the result of a **SearchMailboxes** operation.

#### 3.1.4.4.3.12 SearchMailboxesResultType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **SearchMailboxesResultType** complex type specifies the result from the **SearchMailboxes** operation.

```
<xs:complexType name="SearchMailboxesResultType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" name="SearchQueries"
      type="t:NonEmptyArrayOfMailboxQueriesType"/>
    <xs:element minOccurs="1" name="ResultType" type="t:SearchResultType"/>
    <xs:element minOccurs="1" name="ItemCount" type="xs:long"/>
    <xs:element minOccurs="1" name="Size" type="xs:long"/>
    <xs:element minOccurs="1" name="PageItemCount" type="xs:int"/>
    <xs:element minOccurs="1" name="PageItemSize" type="xs:long"/>
    <xs:element minOccurs="0" name="KeywordStats"
      type="t:ArrayOfKeywordStatisticsSearchResultsType"/>
    <xs:element minOccurs="0" name="Items" type="t:ArrayOfSearchPreviewItemsType"/>
    <xs:element minOccurs="0" name="FailedMailboxes"
      type="t:ArrayOfFailedSearchMailboxesType"/>
    <xs:element minOccurs="0" name="Refiners" type="t:ArrayOfSearchRefinerItemsType"/>
    <xs:element minOccurs="0" name="MailboxStats"
      type="t:ArrayOfMailboxStatisticsItemsType"/>
  </xs:sequence>
</xs:complexType>
```

**SearchQueries:** Contains a list of mailboxes plus the query to be searched.

**ResultType:** Contains the type of search, either statistics only or preview only.

**ItemCount:** Contains a value for the total number of items in a search result.

**Size:** Contains the size of the item.

**PageItemCount:** Contains the number of pages returned in a search result pagination.

**PageItemSize:** Contains the number of items to return in a search result pagination.

**KeywordStats:** Contains a list of one or more **KeywordStat** elements.

**Items:** Contains a list of items available for preview.

**FailedMailboxes:** Contains a list of failed mailboxes.

**Refiners:** Contains a list of one or more **Refiner** elements.

**MailboxStats:** Contains a list of one or more **MailboxStat** elements.

### 3.1.4.4.3.13 ArrayOfKeywordStatisticsSearchResultsType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **ArrayOfKeywordStatisticsSearchResultsType** complex type specifies an array of keyword statistics in the search result.

```
<xs:complexType name="ArrayOfKeywordStatisticsSearchResultsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="KeywordStat"
type="t:KeywordStatisticsSearchResultType"/>
  </xs:sequence>
</xs:complexType>
```

**KeywordStat:** Represents keyword statistics information.

### 3.1.4.4.3.14 KeywordStatisticsSearchResultType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **KeywordStatisticsSearchResultType** complex type specifies a keyword statistics search result.

```
<xs:complexType name="KeywordStatisticsSearchResultType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Keyword" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ItemHits" type="xs:int"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Size" type="xs:long"/>
  </xs:sequence>
</xs:complexType>
```

**Keyword:** Represents the word to be searched for.

**ItemHits:** Represents the number of times that an item appears.

**Size:** Represents the total number of items that have the keyword.

### 3.1.4.4.3.15 ArrayOfSearchPreviewItemsType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **ArrayOfSearchPreviewItemsType** complex type specifies an array of search preview items.

```
<xs:complexType name="ArrayOfSearchPreviewItemsType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="SearchPreviewItem"
      type="t:SearchPreviewItemType"/>
  </xs:sequence>
</xs:complexType>
```

**SearchPreviewItem:** Represents a search preview item.

### 3.1.4.4.3.16 SearchPreviewItemType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **SearchPreviewItemType** complex type specifies a search preview item.

```
<xs:complexType name="SearchPreviewItemType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Id" type="t:ItemIdType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Mailbox" type="t:PreviewItemMailboxType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ParentId" type="t:ItemIdType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="UniqueHash" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="SortValue" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="OwaLink" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Sender" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ToRecipients"
      type="t:ArrayOfSmtptAddressType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CcRecipients"
      type="t:ArrayOfSmtptAddressType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="BccRecipients"
      type="t:ArrayOfSmtptAddressType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CreatedTime" type="xs:dateTime"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ReceivedTime" type="xs:dateTime"/>
    <xs:element minOccurs="0" maxOccurs="1" name="SentTime" type="xs:dateTime"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Subject" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Size" type="xs:long"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Preview" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Importance"
      type="t:ImportanceChoicesType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Read" type="xs:boolean"/>
    <xs:element minOccurs="0" maxOccurs="1" name="HasAttachment" type="xs:boolean"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ExtendedProperties"
      type="t:NonEmptyArrayOfExtendedPropertyType"/>
  </xs:sequence>
</xs:complexType>
```

**Id:** Represents the item identifier.

**Mailbox:** Contains an identifier for the mailbox.

**ParentId:** Contains the identifier of the parent of the item.

**UniqueHash:** Contains a unique hash value used to identify and eliminate duplicates.

**SortValue:** Contains a value used for sorting.

**OwaLink:** Contains the link to preview an item.

**Sender:** Contains the address of the person who sent the item.

**ToRecipients:** Contains a list of recipients to whom the item was sent.

**CcRecipients:** Contains a list of recipients who are carbon copied for this item.

**BccRecipients:** Contains a list of recipients who are blind carbon copied for this item.

**CreatedTime:** Contains the time at which the item was created.

**ReceivedTime:** Contains the time at which an item was received.

**SentTime:** Contains the time at which the item was sent.

**Subject:** Contains a string value for the subject of a message item.

**Size:** Contains the size of the item.

**Preview:** Contains a fragment from the body of an item to be used in a preview.

**Importance:** Contains a value that indicates the urgency of the item. Example values are "High", "Normal", and "Low".

**Read:** Contains a Boolean value that indicates whether an item has been read.

**HasAttachment:** Contains a Boolean value that indicates whether the item has attachments.

**ExtendedProperties:** Contains an array of additional properties.

#### 3.1.4.4.3.17 PreviewItemMailboxType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/types>

The **PreviewItemMailboxType** complex type specifies the mailbox information in a preview item.

```
<xs:complexType name="PreviewItemMailboxType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="MailboxId" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="PrimarySmtpAddress" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

**MailboxId:** Contains an identifier for the mailbox.

**PrimarySmtpAddress:** Represents the primary SMTP address of the mailbox.

#### 3.1.4.4.3.18 ArrayOfFailedSearchMailboxesType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/types>

The **ArrayOfFailedSearchMailboxesType** complex type specifies an array of failed mailboxes.

```
<xs:complexType name="ArrayOfFailedSearchMailboxesType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="FailedMailbox"
type="t:FailedSearchMailboxType"/>
  </xs:sequence>
</xs:complexType>
```

**FailedMailbox:** Contains a value for the hold status of the mailbox.

### 3.1.4.4.3.19 FailedSearchMailboxType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **FailedSearchMailboxType** complex type specifies a failed mailbox.

```
<xs:complexType name="FailedSearchMailboxType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Mailbox" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ErrorCode" type="xs:int"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ErrorMessage" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="IsArchive" type="xs:boolean"/>
  </xs:sequence>
</xs:complexType>
```

**Mailbox:** Contains an identifier for the mailbox.

**ErrorCode:** Contains the error code of the failed mailbox.

**ErrorMessage:** Contains the error message of the failed mailbox.

**IsArchive:** Contains a Boolean value indicating whether the mailbox is an archive.

### 3.1.4.4.3.20 ArrayOfSearchRefinerItemsType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **ArrayOfSearchRefinerItemsType** complex type specifies an array of search refiner items.

```
<xs:complexType name="ArrayOfSearchRefinerItemsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Refiner"
type="t:SearchRefinerItemType"/>
  </xs:sequence>
</xs:complexType>
```

**Refiner:** Represents a search refiner.

### 3.1.4.4.3.21 SearchRefinerItemType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **SearchRefinerItemType** complex type specifies a search refiner item.

```
<xs:complexType name="SearchRefinerItemType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Name" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Value" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Count" type="xs:long"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Token" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

**Name:** Represents the name of the search refiner.

**Value:** Represents the search refiner value.

**Count:** Represents the item count in the search refiner.

**Token:** Represents the search refiner token.

### 3.1.4.4.3.22 ArrayOfMailboxStatisticsItemsType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **ArrayOfMailboxStatisticsItemsType** complex type specifies an array of mailbox statistics.

```
<xs:complexType name="ArrayOfMailboxStatisticsItemsType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="MailboxStat"
      type="t:MailboxStatisticsItemType"/>
  </xs:sequence>
</xs:complexType>
```

**MailboxStat:** Contains a value for the mailbox statistic.

### 3.1.4.4.3.23 MailboxStatisticsItemType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **MailboxStatisticsItemType** complex type specifies a mailbox statistic.

```
<xs:complexType name="MailboxStatisticsItemType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="MailboxId" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="DisplayName" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ItemCount" type="xs:long"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Size" type="xs:long"/>
  </xs:sequence>
</xs:complexType>
```

**MailboxId:** Contains an identifier for the mailbox.

**DisplayName:** Contains a string specifying the name of the mailbox.

**ItemCount:** Contains the total number of items in a search result.

**Size:** Contains a value for the mailbox items size returned from a search.

### 3.1.4.4.4 Simple Types

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

Simple type	Description
MailboxSearchLocationType	Specifies the location to be searched.
SearchResultType	Specifies a search result.
PreviewItemBaseShapeType	Specifies whether an item is previewed with all its properties, or whether it is compacted.
SearchPageDirectionType	Specifies the direction in which to search.

#### 3.1.4.4.4.1 MailboxSearchLocationType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/types>

The **MailboxSearchLocationType** simple type specifies the location to be searched.

```
<xs:simpleType name="MailboxSearchLocationType" xmlns:xs="http://www.w3.org/2001/XMLSchema">  
  <xs:restriction base="xs:string">  
    <xs:enumeration value="PrimaryOnly"/>  
    <xs:enumeration value="ArchiveOnly"/>  
    <xs:enumeration value="All"/>  
  </xs:restriction>  
</xs:simpleType>
```

The following table specifies the allowable values for **MailboxSearchLocationType**.

Value	Meaning
PrimaryOnly	Search in primary mailbox only.
ArchiveOnly	Search in archive mailbox only.
All	Search in all mailboxes.

#### 3.1.4.4.4.2 SearchResultType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/types>

The **SearchResultType** simple type specifies a search result.

```
<xs:simpleType name="SearchResultType" xmlns:xs="http://www.w3.org/2001/XMLSchema">  
  <xs:restriction base="xs:string">  
    <xs:enumeration value="StatisticsOnly"/>  
    <xs:enumeration value="PreviewOnly"/>  
    <xs:enumeration value="StatisticsAndPreview"/>  
  </xs:restriction>  
</xs:simpleType>
```



The following table specifies the allowable values for **SearchResultType**.

Value	Meaning
StatisticsOnly	Perform statistics search only.
PreviewOnly	Perform preview search only.
StatisticsAndPreview	Perform statistics and preview searches.

### 3.1.4.4.4.3 PreviewItemBaseShapeType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **PreviewItemBaseShapeType** simple type specifies whether an item is previewed with all its properties, or whether it is compacted.

```
<xs:simpleType name="PreviewItemBaseShapeType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Default"/>
    <xs:enumeration value="Compact"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for **PreviewItemBaseShapeType**.

Value	Meaning
Default	Indicates the default view with all properties for the item preview.
Compact	Indicates a compact view with only a few properties for the item preview.

### 3.1.4.4.4.4 SearchPageDirectionType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/types

The **SearchPageDirectionType** simple type specifies the direction in which to search.

```
<xs:simpleType name="SearchPageDirectionType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Previous"/>
    <xs:enumeration value="Next"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for **SearchPageDirectionType**.

Value	Meaning
Previous	Navigate to the previous page.
Next	Navigate to the next page.

### 3.1.4.4.5 Attributes

None.

### 3.1.4.4.6 Groups

None.

### 3.1.4.4.7 Attribute Groups

None.

### 3.1.4.5 SetHoldOnMailboxes

The **SetHoldOnMailboxes** sets a query-based hold on mailboxes.

```
<wsdl:operation name="SetHoldOnMailboxes" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:SetHoldOnMailboxesSoapIn"/>
  <wsdl:output message="m:SetHoldOnMailboxesSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **SetHoldOnMailboxes** operation.

```
<wsdl:operation name="SetHoldOnMailboxes" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SetHoldOnMailboxes"
    xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  <wsdl:input>
    <soap:header message="m:SetHoldOnMailboxesSoapIn" part="RequestVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:SetHoldOnMailboxesSoapIn" part="ManagementRole" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:body use="literal" parts="request"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="SetHoldOnMailboxesResult"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
    <soap:header message="m:SetHoldOnMailboxesSoapOut" part="ServerVersion" use="literal"
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" />
  </wsdl:output>
</wsdl:operation>
```

### 3.1.4.5.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to this operation.

Message	Description
SetHoldOnMailboxesSoapIn	Specifies the request to set a hold on mailboxes.
SetHoldOnMailboxesSoapOut	Specifies the response to the <b>SetHoldOnMailboxesSoapIn</b> request.

### 3.1.4.5.1.1 SetHoldOnMailboxesSoapIn

The **SetHoldOnMailboxesSoapIn** WSDL message specifies the request to set a hold on mailboxes.

The following is the **SetHoldOnMailboxes** WSDL message specification.

```
<wsdl:message name="SetHoldOnMailboxesSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:SetHoldOnMailboxes"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
request	m:SetHoldOnMailboxes (section <a href="#">3.1.4.5.2.1</a> )	Specifies the SOAP body of the request containing the information that is required to query for availability.
RequestVersion	t:RequestServerVersion ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.9)	Specifies a SOAP header that identifies the schema version for the <b>SetHoldOnMailboxes</b> operation request. <5>
ManagementRole	t:ManagementRole ( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.7)	Specifies a SOAP header that identifies a user or application role.

### 3.1.4.5.1.2 SetHoldOnMailboxesSoapOut

The **SetHoldOnMailboxesSoapOut** WSDL message specifies the response to the **SetHoldOnMailboxesSoapIn** request.

The following is the **SetHoldOnMailboxes** WSDL message specification.

```
<wsdl:message name="SetHoldOnMailboxesSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="SetHoldOnMailboxesResult" element="m:SetHoldOnMailboxesResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
SetHoldOnMailboxesResult	m:SetHoldOnMailboxesResponse (section <a href="#">3.1.4.5.2.2</a> )	Specifies the SOAP body of the response that contains the requested availability information.
ServerVersion	t:ServerVersionInfo	Specifies a SOAP header that identifies

Part name	Element/type	Description
	( <a href="#">[MS-OXWSCDATA]</a> section 2.2.5.10)	the server version for the response.

### 3.1.4.5.2 Elements

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

Element	Description
SetHoldOnMailboxes	The input data for the <b>SetHoldOnMailboxes</b> WSDL operation.
SetHoldOnMailboxesResponse	The result data for the <b>SetHoldOnMailboxes</b> WSDL operation.

#### 3.1.4.5.2.1 SetHoldOnMailboxes

The input data for the **SetHoldOnMailboxes** WSDL operation.

```
<xs:element name="SetHoldOnMailboxes" type="m:SetHoldOnMailboxesType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

#### 3.1.4.5.2.2 SetHoldOnMailboxesResponse

The result data for the **SetHoldOnMailboxes** WSDL operation.

```
<xs:element name="SetHoldOnMailboxesResponse" type="m:SetHoldOnMailboxesResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

### 3.1.4.5.3 Complex Types

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

Complex type	Description
SetHoldOnMailboxesType	Specifies a request to set a hold on mailboxes.
SetHoldOnMailboxesResponseMessageType	Specifies the response message for a <b>SetHoldOnMailboxes</b> operation.

#### 3.1.4.5.3.1 SetHoldOnMailboxesType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/messages>

The **SetHoldOnMailboxesType** complex type specifies a request to set a hold on mailboxes.

```
<xs:complexType name="SetHoldOnMailboxesType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" name="ActionType" type="t:HoldActionType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

```

    <xs:element minOccurs="1" name="HoldId" type="xs:string"/>
    <xs:element minOccurs="1" name="Query" type="xs:string"/>
    <xs:element minOccurs="1" name="Mailboxes" type="t:ArrayOfStringsType"/>
    <xs:element minOccurs="1" name="Language" type="xs:string"/>
    <xs:element minOccurs="0" name="IncludeNonIndexableItems" type="xs:boolean"/>
    <xs:element minOccurs="0" name="Deduplication" type="xs:boolean"/>
    <xs:element minOccurs="0" name="WordStemming" type="xs:boolean"/>
    <xs:element minOccurs="0" name="NearMisspellings" type="xs:boolean"/>
  </xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

**ActionType:** Represents the type of action.

**HoldId:** Represents the identifier of the hold.

**Query:** Represents a query.

**Mailboxes:** Represents the set of mailboxes to which the query-based hold will apply.

**Language:** Represents the language of the query, for example, "en-us".

**IncludeNonIndexableItems:** Contains a Boolean value that indicates whether to include non-indexable items.

**Deduplication:** Contains a Boolean value that indicates whether to remove duplicates from the search result.

**WordStemming:**

**NearMisspellings:**

### 3.1.4.5.3.2 SetHoldOnMailboxesResponseMessageType

**Namespace:** http://schemas.microsoft.com/exchange/services/2006/messages

The **SetHoldOnMailboxesResponseMessageType** complex type specifies the response message for a **SetHoldOnMailboxes** operation.

```

<xs:complexType name="SetHoldOnMailboxesResponseMessageType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" name="MailboxHoldResult" type="t:MailboxHoldResultType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

**MailboxHoldResult:** Represents the result of a **SetHoldOnMailboxes** operation.

### 3.1.4.5.4 Simple Types

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

Simple type	Description
HoldActionType	Specifies a hold action.

#### 3.1.4.5.4.1 HoldActionType

**Namespace:** <http://schemas.microsoft.com/exchange/services/2006/types>

The **HoldActionType** simple type specifies a hold action.

```
<xs:simpleType name="HoldActionType" xmlns:xs="http://www.w3.org/2001/XMLSchema">  
  <xs:restriction base="xs:string">  
    <xs:enumeration value="Create"/>  
    <xs:enumeration value="Update"/>  
    <xs:enumeration value="Remove"/>  
  </xs:restriction>  
</xs:simpleType>
```

The following table specifies the allowable values for **HoldActionType**.

Value	Meaning
Create	The action is placing a hold.
Update	The action is updating a hold.
Remove	The action is releasing a hold.

#### 3.1.4.5.5 Attributes

None.

#### 3.1.4.5.6 Groups

None.

#### 3.1.4.5.7 Attribute Groups

None.

### 3.1.5 Timer Events

None.

### 3.1.6 Other Local Events

None.

## 4 Protocol Examples

Preliminary

## 5 Security

### 5.1 Security Considerations for Implementers

This protocol relies on the Web server that hosts the application to perform authentication. The protocol SHOULD use secure communications by means of HTTPS, as defined in [\[RFC2818\]](#).

### 5.2 Index of Security Parameters

None.



## 6 Appendix A: Full WSDL

For ease of implementation, the full WSDL is provided in this appendix.

```
<?xml version="1.0"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types/>
  <wsdl:message name="GetHoldOnMailboxesSoapIn">
    <wsdl:part name="request" element="m:GetHoldOnMailboxes"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="GetHoldOnMailboxesSoapOut">
    <wsdl:part name="GetHoldOnMailboxesResult" element="m:GetHoldOnMailboxesResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="GetSearchableMailboxesSoapIn">
    <wsdl:part name="request" element="m:GetSearchableMailboxes"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="GetSearchableMailboxesSoapOut">
    <wsdl:part name="GetSearchableMailboxesResult"
element="m:GetSearchableMailboxesResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="GetUserHoldSettingsSoapIn">
    <wsdl:part name="request" element="m:GetUserHoldSettings"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="GetUserHoldSettingsSoapOut">
    <wsdl:part name="GetUserHoldSettingsResult" element="m:GetUserHoldSettingsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="SearchMailboxesSoapIn">
    <wsdl:part name="request" element="m:SearchMailboxes"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="SearchMailboxesSoapOut">
    <wsdl:part name="SearchMailboxesResult" element="m:SearchMailboxesResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="SetHoldOnMailboxesSoapIn">
    <wsdl:part name="request" element="m:SetHoldOnMailboxes"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="SetHoldOnMailboxesSoapOut">
    <wsdl:part name="SetHoldOnMailboxesResult" element="m:SetHoldOnMailboxesResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="GetHoldOnMailboxes">
```

```

        <wsdl:input message="m:GetHoldOnMailboxesSoapIn"/>
        <wsdl:output message="m:GetHoldOnMailboxesSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetSearchableMailboxes">
        <wsdl:input message="m:GetSearchableMailboxesSoapIn"/>
        <wsdl:output message="m:GetSearchableMailboxesSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetUserHoldSettings">
        <wsdl:input message="m:GetUserHoldSettingsSoapIn"/>
        <wsdl:output message="m:GetUserHoldSettingsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="SearchMailboxes">
        <wsdl:input message="m:SearchMailboxesSoapIn"/>
        <wsdl:output message="m:SearchMailboxesSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="SetHoldOnMailboxes">
        <wsdl:input message="m:SetHoldOnMailboxesSoapIn"/>
        <wsdl:output message="m:SetHoldOnMailboxesSoapOut"/>
    </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="ExchangeServiceBinding" type="m:ExchangeServicePortType">
    <wsdl:documentation>
        <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://ws-
i.org/schemas/conformanceClaim/" />
    </wsdl:documentation>
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="GetHoldOnMailboxes">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetHoldOnMailboxes"/
>
            <wsdl:input>
                <soap:header message="m:GetHoldOnMailboxesSoapIn" part="RequestVersion"
use="literal"/>
                <soap:header message="m:GetHoldOnMailboxesSoapIn" part="ManagementRole"
use="literal"/>
                <soap:body use="literal" parts="request"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" parts="GetHoldOnMailboxesResult"/>
                <soap:header message="m:GetHoldOnMailboxesSoapOut" part="ServerVersion"
use="literal"/>
            </wsdl:output>
        </wsdl:operation>
    <wsdl:operation name="GetSearchableMailboxes">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetSearchableMailbox
es"/>
            <wsdl:input>
                <soap:header message="m:GetSearchableMailboxesSoapIn" part="RequestVersion"
use="literal"/>
                <soap:header message="m:GetSearchableMailboxesSoapIn" part="ManagementRole"
use="literal"/>
                <soap:body use="literal" parts="request"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" parts="GetSearchableMailboxesResult"/>
                <soap:header message="m:GetSearchableMailboxesSoapOut" part="ServerVersion"
use="literal"/>
            </wsdl:output>
        </wsdl:operation>

```

```

        <wsdl:operation name="GetUserHoldSettings">
            <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetUserHoldSettings"
/>
            <wsdl:input>
                <soap:header message="m:GetUserHoldSettingsSoapIn" part="RequestVersion"
use="literal"/>
                <soap:header message="m:GetUserHoldSettingsSoapIn" part="ManagementRole"
use="literal"/>
                <soap:body use="literal" parts="request"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" parts="GetUserHoldSettingsResult"/>
                <soap:header message="m:GetUserHoldSettingsSoapOut" part="ServerVersion"
use="literal"/>
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="SearchMailboxes">
            <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SearchMailboxes"/>
            <wsdl:input>
                <soap:header message="m:SearchMailboxesSoapIn" part="RequestVersion" use="literal"/>
                <soap:header message="m:SearchMailboxesSoapIn" part="ManagementRole" use="literal"/>
                <soap:body use="literal" parts="request"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" parts="SearchMailboxesResult"/>
                <soap:header message="m:SearchMailboxesSoapOut" part="ServerVersion" use="literal"/>
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="SetHoldOnMailboxes">
            <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/SetHoldOnMailboxes"/
>
            <wsdl:input>
                <soap:header message="m:SetHoldOnMailboxesSoapIn" part="RequestVersion"
use="literal"/>
                <soap:header message="m:SetHoldOnMailboxesSoapIn" part="ManagementRole"
use="literal"/>
                <soap:body use="literal" parts="request"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" parts="SetHoldOnMailboxesResult"/>
                <soap:header message="m:SetHoldOnMailboxesSoapOut" part="ServerVersion"
use="literal"/>
            </wsdl:output>
        </wsdl:operation>
    </wsdl:binding>
</wsdl:definitions>

```

## 7 Appendix B: Full XML Schema

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

Schema name	Prefix	Section
<a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a>	m	<a href="#">7.1</a>
<a href="http://schemas.microsoft.com/exchange/services/2006/types">http://schemas.microsoft.com/exchange/services/2006/types</a>	t	<a href="#">7.2</a>

### 7.1 <http://schemas.microsoft.com/exchange/services/2006/messages> Schema

This section contains the full XML schema for messages.

```
<?xml version="1.0"?>
<xs:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
version="Exchange2012" id="messages" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"/>
  <xs:include schemaLocation="MS-OXWSEDISC-messages.xsd"/>
  <xs:complexType name="ArrayOfResponseMessagesType">
    <xs:choice maxOccurs="unbounded">
      <xs:element name="SearchMailboxesResponseMessage"
type="m:SearchMailboxesResponseMessageType"/>
    </xs:choice>
  </xs:complexType>
  <xs:complexType name="BaseResponseMessageType">
    <xs:sequence>
      <xs:element name="ResponseMessages" type="m:ArrayOfResponseMessagesType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="GetHoldOnMailboxes" type="m:GetHoldOnMailboxesType"/>
  <xs:element name="GetHoldOnMailboxesResponse"
type="m:GetHoldOnMailboxesResponseMessageType"/>
  <xs:complexType name="GetHoldOnMailboxesResponseMessageType">
    <xs:complexContent mixed="false">
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element minOccurs="0" name="MailboxHoldResult" type="t:MailboxHoldResultType"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="GetHoldOnMailboxesType">
    <xs:complexContent mixed="false">
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element minOccurs="1" name="HoldId" type="xs:string"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetUserHoldSettings" type="m:GetUserHoldSettingsType"/>
  <xs:element name="GetUserHoldSettingsResponse"
type="m:GetUserHoldSettingsResponseMessageType"/>
</pre>
```

```

<xs:complexType name="GetUserHoldSettingsResponseMessageType">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="UserHoldSettings"
type="t:ArrayOfUserHoldSettingType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="GetUserHoldSettingsType">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" name="SmtpAddresses" type="t:ArrayOfSmtpAddressType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="GetSearchableMailboxesType">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="0" name="SearchFilter" type="xs:string"/>
        <xs:element minOccurs="0" name="ExpandGroupMembership" type="xs:boolean"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="GetSearchableMailboxes" type="m:GetSearchableMailboxesType"/>
<xs:complexType name="GetSearchableMailboxesResponseMessageType">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element name="SearchableMailboxes" type="t:ArrayOfSearchableMailboxesType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="GetSearchableMailboxesResponse"
type="m:GetSearchableMailboxesResponseMessageType"/>
<xs:complexType name="SearchMailboxesType">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" name="SearchQueries"
type="t:NonEmptyArrayOfMailboxQueriesType"/>
        <xs:element minOccurs="1" name="ResultType" type="t:SearchResultType"/>
        <xs:element minOccurs="0" name="PreviewItemResponseShape"
type="t:PreviewItemResponseShapeType"/>
        <xs:element minOccurs="0" name="SortBy" type="t:FieldOrderType"/>
        <xs:element minOccurs="0" name="Language" type="xs:string"/>
        <xs:element minOccurs="0" name="Deduplication" type="xs:boolean"/>
        <xs:element minOccurs="0" name="WordStemming" type="xs:boolean"/>
        <xs:element minOccurs="0" name="NearMisspellings" type="xs:boolean"/>
        <xs:element minOccurs="0" name="PageSize" type="xs:int"/>
        <xs:element minOccurs="0" name="PageItemReference" type="xs:string"/>
        <xs:element minOccurs="0" name="PageDirection" type="t:SearchPageDirectionType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

```

        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="SearchMailboxes" type="m:SearchMailboxesType"/>
<xs:complexType name="SearchMailboxesResponseType">
    <xs:complexContent mixed="false">
        <xs:extension base="m:BaseResponseMessageType"/>
    </xs:complexContent>
</xs:complexType>
<xs:element name="SearchMailboxesResponse" type="m:SearchMailboxesResponseType"/>
<xs:complexType name="SearchMailboxesResponseMessageType">
    <xs:complexContent mixed="false">
        <xs:extension base="m:ResponseMessageType">
            <xs:sequence>
                <xs:element minOccurs="0" name="SearchMailboxesResult"
type="t:SearchMailboxesResultType"/>
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:complexType name="SetHoldOnMailboxesType">
    <xs:complexContent mixed="false">
        <xs:extension base="m:BaseRequestType">
            <xs:sequence>
                <xs:element minOccurs="1" name="ActionType" type="t:HoldActionType"/>
                <xs:element minOccurs="1" name="HoldId" type="xs:string"/>
                <xs:element minOccurs="1" name="Query" type="xs:string"/>
                <xs:element minOccurs="1" name="Mailboxes" type="t:ArrayOfStringsType"/>
                <xs:element minOccurs="0" name="Language" type="xs:string"/>
                <xs:element minOccurs="0" name="IncludeNonIndexableItems" type="xs:boolean"/>
                <xs:element minOccurs="0" name="Deduplication" type="xs:boolean"/>
                <xs:element minOccurs="0" name="WordStemming" type="xs:boolean"/>
                <xs:element minOccurs="0" name="NearMisspellings" type="xs:boolean"/>
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="SetHoldOnMailboxes" type="m:SetHoldOnMailboxesType"/>
<xs:complexType name="SetHoldOnMailboxesResponseMessageType">
    <xs:complexContent mixed="false">
        <xs:extension base="m:ResponseMessageType">
            <xs:sequence>
                <xs:element minOccurs="0" name="MailboxHoldResult" type="t:MailboxHoldResultType"/>
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="SetHoldOnMailboxesResponse"
type="m:SetHoldOnMailboxesResponseMessageType"/>
</xs:schema>

```

## 7.2 <http://schemas.microsoft.com/exchange/services/2006/types> Schema

This section contains the full XML schema for types.

```
<?xml version="1.0"?>
```

```

<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
version="Exchange2012" id="types" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
  <xs:include schemaLocation="MS-OXWSXPROP-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSMSHR-types.xsd"/>
  <xs:complexType name="ArrayOfFailedSearchMailboxesType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="FailedMailbox"
type="t:FailedSearchMailboxType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfKeywordStatisticsSearchResultsType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="KeywordStat"
type="t:KeywordStatisticsSearchResultType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfMailboxHoldStatusType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="MailboxHoldStatus"
type="t:MailboxHoldStatusType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfMailboxStatisticsItemsType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="MailboxStat"
type="t:MailboxStatisticsItemType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfUserHoldSettingType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="UserHoldSetting"
type="t:UserHoldSettingType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfSearchableMailboxesType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="SearchableMailbox"
type="t:SearchableMailboxType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfSearchPreviewItemsType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="SearchPreviewItem"
type="t:SearchPreviewItemType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfSearchRefinerItemsType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="Refiner"
type="t:SearchRefinerItemType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="FailedSearchMailboxType">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="Mailbox" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ErrorCode" type="xs:int"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ErrorMessage" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>

```

```

        <xs:element minOccurs="1" maxOccurs="1" name="IsArchive" type="xs:boolean"/>
    </xs:sequence>
</xs:complexType>
<xs:simpleType name="HoldActionType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="Create"/>
        <xs:enumeration value="Update"/>
        <xs:enumeration value="Remove"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="HoldStatusType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="NotOnHold"/>
        <xs:enumeration value="Pending"/>
        <xs:enumeration value="OnHold"/>
        <xs:enumeration value="PartialHold"/>
        <xs:enumeration value="Failed"/>
    </xs:restriction>
</xs:simpleType>
<xs:complexType name="KeywordStatisticsSearchResultType">
    <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="Keyword" type="xs:string"/>
        <xs:element minOccurs="1" maxOccurs="1" name="ItemHits" type="xs:int"/>
        <xs:element minOccurs="1" maxOccurs="1" name="Size" type="xs:long"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="MailboxHoldResultType">
    <xs:sequence>
        <xs:element name="HoldId" type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Query" type="xs:string"/>
        <xs:element name="MailboxHoldStatuses" type="t:ArrayOfMailboxHoldStatusType"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="MailboxHoldStatusType">
    <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="Mailbox" type="xs:string"/>
        <xs:element minOccurs="1" maxOccurs="1" name="Status" type="t:HoldStatusType"/>
        <xs:element minOccurs="0" maxOccurs="1" name="AdditionalInfo" type="xs:string"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="MailboxQueryType">
    <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="Query" type="xs:string"/>
        <xs:element minOccurs="1" maxOccurs="1" name="MailboxSearchScopes"
type="t:NonEmptyArrayOfMailboxSearchScopesType"/>
    </xs:sequence>
</xs:complexType>
<xs:simpleType name="MailboxSearchLocationType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="PrimaryOnly"/>
        <xs:enumeration value="ArchiveOnly"/>
        <xs:enumeration value="All"/>
    </xs:restriction>
</xs:simpleType>
<xs:complexType name="MailboxSearchScopeType">
    <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="Mailbox" type="xs:string"/>
        <xs:element minOccurs="1" maxOccurs="1" name="SearchScope"
type="t:MailboxSearchLocationType"/>
    </xs:sequence>

```



```

    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="MailboxStatisticsItemType">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="MailboxId" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="DisplayName" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ItemCount" type="xs:long"/>
      <xs:element minOccurs="1" maxOccurs="1" name="Size" type="xs:long"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfExtendedFieldURIsType">
    <xs:choice maxOccurs="unbounded">
      <xs:element name="ExtendedFieldURI" type="t:PathToExtendedFieldType"/>
    </xs:choice>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfMailboxSearchScopesType">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="unbounded" name="MailboxSearchScope"
type="t:MailboxSearchScopeType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfMailboxQueriesType">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="unbounded" name="MailboxQuery"
type="t:MailboxQueryType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:simpleType name="PreviewItemBaseShapeType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Default"/>
      <xs:enumeration value="Compact"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:complexType name="PreviewItemMailboxType">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="MailboxId" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="PrimarySmtpAddress" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="PreviewItemResponseShapeType">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="BaseShape"
type="t:PreviewItemBaseShapeType"/>
      <xs:element minOccurs="0" maxOccurs="1" name="AdditionalProperties"
type="t:NonEmptyArrayOfExtendedFieldURIsType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="SearchableMailboxType">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="Guid" type="t:GuidType"/>
      <xs:element minOccurs="1" maxOccurs="1" name="PrimarySmtpAddress" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="DisplayName" type="xs:string"/>
      <xs:element minOccurs="1" maxOccurs="1" name="IsMembershipGroup" type="xs:boolean"/>
      <xs:element minOccurs="1" maxOccurs="1" name="ReferenceId" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="SearchMailboxesResultType">
    <xs:sequence>

```

```

    <xs:element minOccurs="1" name="SearchQueries"
type="t:NonEmptyArrayOfMailboxQueriesType"/>
    <xs:element minOccurs="1" name="ResultType" type="t:SearchResultType"/>
    <xs:element minOccurs="1" name="ItemCount" type="xs:long"/>
    <xs:element minOccurs="1" name="Size" type="xs:long"/>
    <xs:element minOccurs="1" name="PageItemCount" type="xs:int"/>
    <xs:element minOccurs="1" name="PageItemSize" type="xs:long"/>
    <xs:element minOccurs="0" name="KeywordStats"
type="t:ArrayOfKeywordStatisticsSearchResultsType"/>
    <xs:element minOccurs="0" name="Items" type="t:ArrayOfSearchPreviewItemsType"/>
    <xs:element minOccurs="0" name="FailedMailboxes"
type="t:ArrayOfFailedSearchMailboxesType"/>
    <xs:element minOccurs="0" name="Refiners" type="t:ArrayOfSearchRefinerItemsType"/>
    <xs:element minOccurs="0" name="MailboxStats"
type="t:ArrayOfMailboxStatisticsItemsType"/>
  </xs:sequence>
</xs:complexType>
<xs:simpleType name="SearchPageDirectionType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Previous"/>
    <xs:enumeration value="Next"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="SearchPreviewItemType">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Id" type="t:ItemIdType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Mailbox"
type="t:PreviewItemMailboxType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ParentId" type="t:ItemIdType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="UniqueHash" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="SortValue" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="OwaLink" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Sender" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ToRecipients"
type="t:ArrayOfSmtptAddressType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CcRecipients"
type="t:ArrayOfSmtptAddressType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="BccRecipients"
type="t:ArrayOfSmtptAddressesType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CreatedTime" type="xs:dateTime"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ReceivedTime" type="xs:dateTime"/>
    <xs:element minOccurs="0" maxOccurs="1" name="SentTime" type="xs:dateTime"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Subject" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Size" type="xs:long"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Preview" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Importance"
type="t:ImportanceChoicesType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Read" type="xs:boolean"/>
    <xs:element minOccurs="0" maxOccurs="1" name="HasAttachment" type="xs:boolean"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ExtendedProperties"
type="t:NonEmptyArrayOfExtendedPropertyType"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="SearchRefinerItemType">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="Name" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Value" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Count" type="xs:long"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Token" type="xs:string"/>
  </xs:sequence>

```

```
</xs:complexType>
<xs:simpleType name="SearchResultType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="StatisticsOnly"/>
    <xs:enumeration value="PreviewOnly"/>
    <xs:enumeration value="StatisticsAndPreview"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="UserHoldStateType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="UserNotOnHold"/>
    <xs:enumeration value="UserOnHold"/>
    <xs:enumeration value="UserNotFound"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="UserHoldSettingType">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="SmtpAddress" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="UserState" type="t:UserHoldStateType"/>
  </xs:sequence>
</xs:complexType>
</xs:schema>
```

## 8 Appendix C: Product Behavior

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

- Microsoft® Exchange Server 2013 Preview
- Microsoft® SharePoint® Server 2013 Preview

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

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

[<1> Section 3.1.4.1.1.1:](#) Exchange 2007, Exchange 2010, and Exchange 2010 SP1 do not use the **RequestVersion** header. The **RequestVersion** header was introduced in Exchange 2010 SP2.

[<2> Section 3.1.4.2.1.1:](#) Exchange 2007, Exchange 2010, and Exchange 2010 SP1 do not use the **RequestVersion** header. The **RequestVersion** header was introduced in Exchange 2010 SP2.

[<3> Section 3.1.4.3.1.1:](#) Exchange 2007, Exchange 2010, and Exchange 2010 SP1 do not use the **RequestVersion** header. The **RequestVersion** header was introduced in Exchange 2010 SP2.

[<4> Section 3.1.4.4.1.1:](#) Exchange 2007, Exchange 2010, and Exchange 2010 SP1 do not use the **RequestVersion** header. The **RequestVersion** header was introduced in Exchange 2010 SP2.

[<5> Section 3.1.4.5.1.1:](#) Exchange 2007, Exchange 2010, and Exchange 2010 SP1 do not use the **RequestVersion** header. The **RequestVersion** header was introduced in Exchange 2010 SP2.

## 9 Change Tracking

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

Preliminary

## 10 Index

### A

Abstract data model  
[server](#) 13  
[Applicability](#) 8  
[ArrayOfMailboxHoldStatusType complex type](#) 10  
[Attribute groups](#) 12  
[Attributes](#) 12

### C

[Capability negotiation](#) 8  
[Change tracking](#) 61  
[Complex types](#) 10  
[ArrayOfMailboxHoldStatusType](#) 10  
[MailboxHoldResultType](#) 10  
[MailboxHoldStatusType](#) 11

### D

Data model - abstract  
[server](#) 13

### E

Events  
[local - server](#) 46  
[timer - server](#) 46

### F

[Fields - vendor-extensible](#) 8  
[Full WSDL](#) 49  
[Full XML Schema](#) 52  
[http://schemas.microsoft.com/exchange/services/2006/messages Schema](#) 52  
[http://schemas.microsoft.com/exchange/services/2006/types Schema](#) 54

### G

[Glossary](#) 6  
[Groups](#) 12

### H

[HoldStatusType simple type](#) 11

### I

[Implementer - security considerations](#) 48  
[Index of security parameters](#) 48  
[Informative references](#) 7  
Initialization  
[server](#) 13  
[Introduction](#) 6

### L

Local events  
[server](#) 46

### M

[MailboxHoldResultType complex type](#) 10  
[MailboxHoldStatusType complex type](#) 11  
Message processing  
[server](#) 13  
Messages  
[ArrayOfMailboxHoldStatusType complex type](#) 10  
[attribute groups](#) 12  
[attributes](#) 12  
[complex types](#) 10  
[elements](#) 9  
[enumerated](#) 9  
[groups](#) 12  
[HoldStatusType simple type](#) 11  
[MailboxHoldResultType complex type](#) 10  
[MailboxHoldStatusType complex type](#) 11  
[namespaces](#) 9  
[simple types](#) 11  
[syntax](#) 9  
[transport](#) 9

### N

[Namespaces](#) 9  
[Normative references](#) 6

### O

Operations  
[GetHoldOnMailboxes](#) 13  
[GetSearchableMailboxes](#) 17  
[GetUserHoldSettings](#) 22  
[SearchMailboxes](#) 27  
[SetHoldOnMailboxes](#) 42  
[Overview \(synopsis\)](#) 7

### P

[Parameters - security index](#) 48  
[Preconditions](#) 8  
[Prerequisites](#) 8  
[Product behavior](#) 60

### R

[References](#) 6  
[informative](#) 7  
[normative](#) 6  
[Relationship to other protocols](#) 7

### S

Security  
[implementer considerations](#) 48  
[parameter index](#) 48

Sequencing rules

[server](#) 13

Server

[abstract data model](#) 13

[GetHoldOnMailboxes operation](#) 13

[GetSearchableMailboxes operation](#) 17

[GetUserHoldSettings operation](#) 22

[initialization](#) 13

[local events](#) 46

[message processing](#) 13

[SearchMailboxes operation](#) 27

[sequencing rules](#) 13

[SetHoldOnMailboxes operation](#) 42

[timer events](#) 46

[timers](#) 13

[Simple types](#) 11

[HoldStatusType](#) 11

[Standards assignments](#) 8

Syntax

[messages - overview](#) 9

## T

Timer events

[server](#) 46

Timers

[server](#) 13

[Tracking changes](#) 61

[Transport](#) 9

Types

[complex](#) 10

[simple](#) 11

## V

[Vendor-extensible fields](#) 8

[Versioning](#) 8

## W

[WSDL](#) 49

## X

[XML Schema](#) 52

<http://schemas.microsoft.com/exchange/services/2006/messages> Schema 52

<http://schemas.microsoft.com/exchange/services/2006/types> Schema 54