[MS-OXWSUSRCFG]: User Configuration Web Service Protocol

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Revision Summary

Date	Revision History	Revision Class	Comments
07/15/2009	1.0	Major	Initial Availability.
11/04/2009	1.0.1	Editorial	Revised and edited the technical content.
02/10/2010	1.2.0	Minor	Updated the technical content.
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1 Introduction

The User Configuration Web Service Protocol is used to access user configuration objects. Clients use the SOAP Protocol, as described in [SOAP1.1], to contact the user configuration service.

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)
SOAP
SOAP action
SOAP body
SOAP header
SOAP message
XML
XML namespace

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

endpoint
folder associated information (FAI)
mailbox
Uniform Resource Locator (URL)
web server
Web Services Description Language (WSDL)
WSDL message
WSDL port type
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 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. We will assist you in finding the relevant information.

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

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

[MS-OXWSFOLD] Microsoft Corporation, "Folders and Folder Permissions Web Service Protocol".

[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

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

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

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

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

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

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

1.2.2 Informative References

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

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

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

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

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

[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 User Configuration Web Service Protocol specifies the messages that are used to create, delete, get, and update user configuration objects, also known as **folder associated information (FAI)**.

1.4 Relationship to Other Protocols

A client that implements this protocol can use the Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI], to identify the target **endpoint (4)** to use for each operation.

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

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

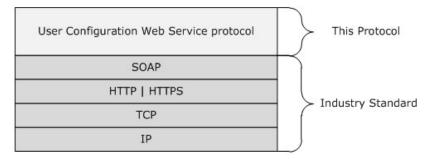


Figure 1: This protocol in relation to other protocols

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

1.5 Prerequisites/Preconditions

The endpoint (4) **URL** that is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI], is required to form the HTTP request to the **web server** that hosts this protocol. 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

The protocol specified in this document is applicable to environments that create, delete, get, or update folder associated information (FAI).

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

This protocol consists of extensible fields. The applicable property types for extended fields are specified in section 2.2.5.2.

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 supported is SOAP 1.1. For details, see [SOAP1.1].

This protocol MUST support SOAP over HTTP. 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 <a href="[XMLSCHEMA2], and WSDL, as defined in [WSDL].

2.2.1 Namespaces

This specification defines and references various **XML** namespaces by using the mechanisms specified in [XMLNS]. Although this specification associates a specific **XML** namespace prefix 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
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
m	http://schemas.microsoft.com/exchange/services/2006/messages	
t	http://schemas.microsoft.com/exchange/services/2006/types	
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
tns	http://schemas.microsoft.com/exchange/services/2006/messages	
targetNamespace	http://schemas.microsoft.com/exchange/services/2006/messages	

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 that are defined by this specification. XML schema complex type definitions that are specific to a particular operation are defined with the operation.

Complex type name	Description	
UserConfigurationDictionaryEntryType	Specifies the contents of a single dictionary entry property.	
UserConfigurationDictionaryObjectType	Specifies a dictionary object.	
UserConfigurationDictionaryType	Specifies a set of dictionary properties.	
UserConfigurationNameType	Specifies the name and the associated folder for a user configuration object.	
UserConfigurationType	Specifies a single user configuration object.	

2.2.4.1 t:UserConfigurationDictionaryEntryType Complex Type

The **UserConfigurationDictionaryEntryType** complex type specifies the contents of a single dictionary entry property.

The following table lists and describes the child elements of the **UserConfigurationDictionaryEntryType** complex type.

Element name	Туре	Description
DictionaryKey	t:UserConfigurationDictionaryObjectType (section 2.2.4.2)	Specifies the dictionary key for a dictionary property.
DictionaryValue	t:UserConfigurationDictionaryObjectType (section 2.2.4.2)	Specifies the dictionary value for a dictionary property.

2.2.4.2 t:UserConfigurationDictionaryObjectType Complex Type

The **UserConfigurationDictionaryObjectType** complex type specifies a dictionary object.

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```
type="t:UserConfigurationDictionaryObjectTypesType"
    />
    <xs:element name="Value"
        type="xs:string"
        maxOccurs="unbounded"
        />
        </xs:sequence>
        </xs:complexType>
```

The following table lists the child elements of the **UserConfigurationDictionaryObjectType** complex type.

Element name	Туре	Description
Туре	t:UserConfigurationDictionaryObjectTypesType (section 2.2.5.1)	Specifies the dictionary object type.
Value	xs:string ([XMLSCHEMA2])	Specifies the dictionary object value as a string.

2.2.4.3 t:UserConfigurationDictionaryType Complex Type

The **UserConfigurationDictionaryType** complex type specifies a set of dictionary properties.

The following table lists and describes the child elements of the **UserConfigurationDictionaryType** complex type.

Element name	Туре	Description
DictionaryEntry	t:UserConfigurationDictionaryEntryType (section 2.2.4.1)	Specifies the properties of the dictionary entry.

2.2.4.4 t:UserConfigurationNameType Complex Type

The **UserConfigurationNameType** complex type specifies the name and the associated folder for a user configuration object. This type extends the **TargetFolderIdType** complex type, as specified in [MS-OXWSFOLD] section 2.2.4.14.

```
<xs:complexType name="UserConfigurationNameType">
<xs:complexContent>
    <xs:extension</pre>
```

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The following table lists the attributes of the **UserConfigurationNameType** complex type.

Attribute name	Туре	Description
Name	t:NonEmptyStringType (section 2.2.5.20)	Specifies the name of a user configuration object.

2.2.4.5 t:UserConfigurationType Complex Type

The **UserConfigurationType** complex type specifies a single user configuration object.

```
<xs:complexType name="UserConfigurationType">
  <xs:sequence>
    <xs:element name="UserConfigurationName"</pre>
     type="t:UserConfigurationNameType"
    <xs:element name="ItemId"</pre>
     type="t:ItemIdType"
     minOccurs="0"
    <xs:element name="Dictionary"</pre>
      type="t:UserConfigurationDictionaryType"
     minOccurs="0"
    <xs:element name="XmlData"</pre>
      type="xs:base64Binary"
     minOccurs="0"
    <xs:element name="BinaryData"</pre>
      type="xs:base64Binary"
      minOccurs="0"
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **UserConfigurationType** complex type.

Element name	Туре	Description
UserConfigurationName	t:UserConfigurationNameType (section 2.2.4.4)	Specifies the user configuration object name. The user configuration object name

Element name	Туре	Description
		MUST be present.
ItemId	t:ItemIdType ([MS-OXWSCORE] section 2.2.4.23)	Specifies the user configuration object item identifier.
Dictionary	t:UserConfigurationDictionaryType (section 2.2.4.3)	Specifies a set of dictionary property entries.
XmlData	xs:base64Binary ([XMLSCHEMA2])	Specifies XML data property content.
BinaryData	xs:base64Binary ([XMLSCHEMA2])	Specifies binary data property content.

2.2.5 Simple Types

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

Simple type name	Description
UserConfigurationDictionaryObjectTypesType	Specifies the data type for a user configuration object dictionary property.
UserConfigurationPropertyType	Specifies the property types to get in a GetUserConfiguration operation, as specified in section 3.1.4.3.

2.2.5.1 t:UserConfigurationDictionaryObjectTypesType Simple Type

The **UserConfigurationDictionaryObjectTypesType** simple type specifies the data type for a user configuration object dictionary property.

```
<xs:simpleType name="UserConfigurationDictionaryObjectTypesType">
  <xs:restriction</pre>
    base="xs:string"
    <xs:enumeration</pre>
      value="DateTime"
    <xs:enumeration</pre>
      value="Boolean"
     />
    <xs:enumeration</pre>
      value="Byte"
    <xs:enumeration</pre>
      value="String"
    <xs:enumeration</pre>
      value="Integer32"
    <xs:enumeration</pre>
      value="UnsignedInteger32"
```

The following table lists and describes the values that are defined by the **UserConfigurationDictionaryObjectTypesType** simple type.

Value name	Description
DateTime	Specifies a DateTime data type for a dictionary entry.
Boolean	Specifies a Boolean data type for a dictionary entry.
Byte	Specifies a byte data type for a dictionary entry.
String	Specifies a string data type for a dictionary entry.
Integer32	Specifies a signed 32-bit integer data type for a dictionary entry.
UnsignedInteger32	Specifies an unsigned 32-bit integer data type for a dictionary entry.
Integer64	Specifies a signed 64-bit integer data type for a dictionary entry.
UnsignedInteger64	Specifies an unsigned 64-bit integer data type for a dictionary entry.
StringArray	Specifies a string array data type for a dictionary entry.
ByteArray	Specifies a byte array data type for a dictionary entry.

2.2.5.2 t:UserConfigurationPropertyType Simple Type

The **UserConfigurationPropertyType** simple type specifies the property types to get in a **GetUserConfiguration** operation, as specified in section 3.1.4.3.

The following table lists and describes the values that are defined by the **UserConfigurationPropertyType** simple type.

Value name	Description
Id	Specifies the identifier property.
Dictionary	Specifies dictionary property types.
XmlData	Specifies XML data property types.
BinaryData	Specifies binary data property types.
All	Specifies the identifier, dictionary, XML data, and binary property types.

2.2.6 Attributes

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

2.2.7 Groups

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

2.2.8 Attribute Groups

This specification does not define any common XML schema attribute group definitions.

3 Protocol Details

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

3.1 ExchangeServicePortType Server Details

The User Configuration Web Service Protocol defines a single WSDL port type with four operations. These operations allow users to create, delete, retrieve, and update users configuration objects.

3.1.1 Abstract Data Model

The User Configuration Web Service Protocol is a stateless protocol. The server maintains the user configuration object data.

The client is not required to maintain the state of the user configuration objects on the server and can retrieve the current set of configuration objects at any time. If more than one client accesses user configuration objects at the same time, there is no requirement that the server lock the existing set of permissions for changes.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

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

Operation	Description	
CreateUserConfiguration (section $3.1.4.1$)	Specifies the WSDL messages for creating user configuration objects.	
DeleteUserConfiguration (section 3.1.4.2)	Specifies the WSDL messages for deleting user configuration objects.	
GetUserConfiguration (section 3.1.4.3)	iguration (section 3.1.4.3) Specifies the WSDL messages for getting user configuration objects.	
UpdateUserConfiguration (section 3.1.4.4)	Specifies the WSDL messages for updating user configuration objects.	

3.1.4.1 CreateUserConfiguration

The **CreateUserConfiguration** operation specifies the WSDL messages for creating user configuration objects.

The following is the WSDL port type definition of this operation.

```
<wsdl:operation name="CreateUserConfiguration">
  <wsdl:input message="tns:CreateUserConfigurationSoapIn"/>
  <wsdl:output message="tns:CreateUserConfigurationSoapOut"/>
  </wsdl:operation>
```

The following is the WSDL binding specification for this operation.

```
<wsdl:operation name="CreateUserConfiguration">
  <soap:operation</pre>
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/CreateUserConfigurat
ion" />
  <wsdl:input>
      <soap:header message="tns:CreateUserConfigurationSoapIn" part="Impersonation"</pre>
use="literal"/>
      <soap:header message="tns:CreateUserConfigurationSoapIn" part="MailboxCulture"</pre>
use="literal"/>
       <soap:header message="tns:CreateUserConfigurationSoapIn" part="RequestVersion"</pre>
use="literal"/>
       <soap:body parts="request" use="literal" />
   </wsdl:input>
   <wsdl:output>
       <soap:body parts="CreateUserConfigurationResult" use="literal" />
       <soap:header message="tns:CreateUserConfigurationSoapOut" part="ServerVersion"</pre>
use="literal"/>
   </wsdl:output>
</wsdl:operation>
```

The protocol client sends a **CreateUserConfigurationSoapIn** request WSDL message, as specified in section <u>3.1.4.1.1.1</u>, and the protocol server responds with a **CreateUserConfigurationSoapOut** response message, as defined in section <u>3.1.4.1.1.2</u>.

3.1.4.1.1 Messages

The following table lists and describes the WSDL message definitions that are specific to the **CreateUserConfiguration** operation.

Message	Description
CreateUserConfigurationSoapIn	Specifies the SOAP message that creates a user configuration object.
CreateUserConfigurationSoapOut	Specifies the SOAP message that is returned by the server in response to a CreateUserConfiguration operation request.

3.1.4.1.1.1 CreateUserConfigurationSoapIn

The **CreateUserConfigurationSoapIn** WSDL message specifies the **CreateUserConfiguration** operation request to create a user configuration object.

```
<wsdl:message name="CreateUserConfigurationSoapIn">
  <wsdl:part name="request" element="tns:CreateUserConfiguration" />
  <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
  <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
```

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

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

The parts of the **CreateUserConfigurationSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	tns:CreateUserConfiguration (section 3.1.4.1.2.1)	Specifies the SOAP body of the request to create a user configuration object. This part is required.
Impersonation	t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating. This part is optional.
MailboxCulture	t:MailboxCulture ([MS- OXWSCDATA] section 2.2.3.6)	Specifies a SOAP header that identifies the culture to use for accessing the mailbox . The cultures are defined in [RFC3066]. This part is optional.
RequestVersion	t:RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9)	Specifies a SOAP header that identifies the schema version for the CreateUserConfiguration operation request.

3.1.4.1.1.2 CreateUserConfigurationSoapOut

The **CreateUserConfigurationSoapOut** WSDL message specifies the server response to a **CreateUserConfiguration** operation request to create a user configuration object.

```
<wsdl:message name="CreateUserConfigurationSoapOut">
        <wsdl:part name="CreateUserConfigurationResult"
element="tns:CreateUserConfigurationResponse" />
        <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
        </wsdl:message>
```

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

The parts of the **CreateUserConfigurationSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
CreateUserConfigurationResul t	tns:CreateUserConfigurationRespons e (section 3.1.4.1.2.2)	Specifies the SOAP body of the response to a CreateUserConfiguratio n operation request.
ServerVersion	t:ServerVersionInfo ([MS- OXWSCDATA] section 2.2.3.10)	Specifies the SOAP header that identifies the server version for the response to

Part name	Element/type	Description
		a CreateUserConfiguratio n request.

A successful **CreateUserConfiguration** operation request returns a **CreateUserConfigurationResponse** element, as specified in section 3.1.4.1.2.2, with the **ResponseClass** attribute of the **CreateUserConfigurationResponseMessage** element set to "Success". The **ResponseCode** element of the **CreateUserConfigurationResponseMessage** element is set to "NoError". The **CreateUserConfigurationResponseMessage** element is a child element of the **ArrayOfResponseMessagesType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.10.

If the **CreateUserConfiguration** operation request is not successful, it returns a **CreateUserConfigurationResponse** element with the **ResponseClass** attribute of the **CreateUserConfigurationResponseMessage** element set to "Error". The **ResponseCode** element of the **CreateUserConfigurationResponseMessage** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.23.

3.1.4.1.2 Elements

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

Element	Description	
CreateUserConfiguration	Specifies a request to create a user configuration object.	
CreateUserConfigurationResponse	Specifies a response to a CreateUserConfiguration operation request.	

3.1.4.1.2.1 CreateUserConfiguration Element

The **CreateUserConfiguration** element specifies a request to create a user configuration object.

```
<xs:element name="CreateUserConfiguration"
  type="m:CreateUserConfigurationType"
/>
```

3.1.4.1.2.2 CreateUserConfigurationResponse Element

The **CreateUserConfigurationResponse** element specifies a response to a **CreateUserConfiguration** operation request (section 3.1.4.1).

```
<xs:element name="CreateUserConfigurationResponse"
   type="m:CreateUserConfigurationResponseType"
/>
```

3.1.4.1.3 Complex Types

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

Complex type	Description	
CreateUserConfigurationResponseType	Specifies a response to a CreateUserConfiguration operation request.	
CreateUserConfigurationType	Specifies a CreateUserConfiguration operation request.	

3.1.4.1.3.1 m:CreateUserConfigurationResponseType Complex Type

The **CreateUserConfigurationResponseType** complex type specifies the response to a **CreateUserConfiguration** operation request (section <u>3.1.4.1</u>). The **CreateUserConfigurationResponseType** complex type extends the **BaseResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.16.

3.1.4.1.3.2 m:CreateUserConfigurationType Complex Type

The **CreateUserConfigurationType** complex type specifies a **CreateUserConfiguration** operation request (section <u>3.1.4.1</u>). The **CreateUserConfigurationType** complex type extends the **BaseRequestType** complex type, as specified in <u>[MS-OXWSCDATA]</u> section 2.2.4.15.

The following table summarizes the child element of the **CreateUserConfigurationType** complex type.

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Element	Туре	Description
UserConfiguration	t: UserConfigurationType (section 2.2.4.5)	Specifies the user configuration object to be created.

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 DeleteUserConfiguration

The **DeleteUserConfiguration** operation specifies the WSDL messages for deleting user configuration objects.

The following is the WSDL port type definition of this operation.

```
<wsdl:operation name="DeleteUserConfiguration">
  <wsdl:input message="tns:DeleteUserConfigurationSoapIn"/>
  <wsdl:output message="tns:DeleteUserConfigurationSoapOut"/>
  </wsdl:operation>
```

The following is the WSDL binding specification for this operation.

```
<wsdl:operation name="DeleteUserConfiguration">
   <soap:operation</pre>
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DeleteUserConfigurat
ion" />
   <wsdl:input>
       <soap:header message="tns:DeleteUserConfigurationSoapIn" part="Impersonation"</pre>
use="literal"/>
       <soap:header message="tns:DeleteUserConfigurationSoapIn" part="MailboxCulture"</pre>
use="literal"/>
       <soap:header message="tns:DeleteUserConfigurationSoapIn" part="RequestVersion"</pre>
use="literal"/>
      <soap:body parts="request" use="literal" />
   </wsdl:input>
   <wsdl:output>
       <soap:body parts="DeleteUserConfigurationResult" use="literal" />
       <soap:header message="tns:DeleteUserConfigurationSoapOut" part="ServerVersion"</pre>
use="literal"/>
  </wsdl:output>
</wsdl:operation>
```

The protocol client sends a CreateUserConfigurationSoapIn request WSDL message, as specified in section 3.1.4.1.1.1, and the protocol server responds with a CreateUserConfigurationSoapOut response message, as defined in

3.1.4.2.1 Messages

The following table lists and describes the WSDL message definitions that are specific to the **DeleteUserConfiguration** operation.

Message	Description
DeleteUserConfigurationSoapIn	Specifies the SOAP message that deletes a user configuration object.
DeleteUserConfigurationSoapOut	Specifies the SOAP message that is returned by the server in response to a DeleteUserConfiguration operation request.

3.1.4.2.1.1 DeleteUserConfigurationSoapIn

The **DeleteUserConfigurationSoapIn** WSDL message specifies a **DeleteUserConfiguration** operation request to delete a user configuration object.

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

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

The parts of the **DeleteUserConfigurationSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	tns:DeleteUserConfiguration (section 3.1.4.2.2.1)	Specifies the SOAP body of a request to delete a user configuration object. This part is required.
Impersonation	t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating. This part is optional.
MailboxCulture	t:MailboxCulture ([MS- OXWSCDATA] section 2.2.3.6)	Specifies a SOAP header that identifies the culture to be used for accessing the mailbox. The cultures are defined in [RFC3066] . This part is optional.
RequestVersion	t:RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9)	Specifies a SOAP header that identifies the schema version for the DeleteUserConfiguration operation request (section 3.1.4.2).

3.1.4.2.1.2 DeleteUserConfigurationSoapOut

The **DeleteUserConfigurationSoapOut** WSDL message specifies the server response to a **DeleteUserConfiguration** operation request to delete a user configuration object.

```
<wsdl:message name="DeleteUserConfigurationSoapOut">
        <wsdl:part name="DeleteUserConfigurationResult"
element="tns:DeleteUserConfigurationResponse" />
        <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
        </wsdl:message>
```

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

The parts of the **DeleteUserConfigurationSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
DeleteUserConfigurationResul t	tns:DeleteUserConfigurationResponse (section 3.1.4.2.2.2)	Specifies the SOAP body of the response to a DeleteUserConfiguration operation request.
ServerVersion	t:ServerVersionInfo ([MS- OXWSCDATA] section 2.2.3.10)	Specifies the SOAP header that identifies the server version for the response.

A successful **DeleteUserConfiguration** operation request returns a **DeleteUserConfigurationResponse** element, as specified in section 3.1.4.2.2.2, with the **ResponseClass** attribute of the **DeleteUserConfigurationResponseMessage** element set to "Success". The **ResponseCode** element of the **DeleteUserConfigurationResponseMessage** element is set to "NoError". The **DeleteUserConfigurationResponseMessage** element is a child element of the **ArrayOfResponseMessagesType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.10.

If the **DeleteUserConfiguration** operation request is not successful, it returns a **DeleteUserConfigurationResponse** element with the **ResponseClass** attribute of the **DeleteUserConfigurationResponseMessage** element set to "Error". The **ResponseCode** element of the **DeleteUserConfigurationResponseMessage** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.23.

3.1.4.2.2 Elements

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

Element	Description	
DeleteUserConfiguration	Specifies a request to delete a user configuration object.	
DeleteUserConfigurationResponse	Specifies the response to a DeleteUserConfiguration operation request.	

3.1.4.2.2.1 DeleteUserConfiguration Element

The **DeleteUserConfiguration** element specifies a request to delete a user configuration object.

```
<xs:element name="DeleteUserConfiguration"
  type="m:DeleteUserConfigurationType"
/>
```

3.1.4.2.2.2 DeleteUserConfigurationResponse Element

The **DeleteUserConfigurationResponse** element specifies the response to a **DeleteUserConfiguration** operation request (section 3.1.4.2).

```
<xs:element name="DeleteUserConfigurationResponse"
   type="m:DeleteUserConfigurationResponseType"
/>
```

3.1.4.2.3 Complex Types

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

Complex type	Description	
DeleteUserConfigurationResponseType	Specifies the response to a DeleteUserConfiguration operation request.	
DeleteUserConfigurationType	Specifies a DeleteUserConfiguration operation request.	

3.1.4.2.3.1 m:DeleteUserConfigurationResponseType Complex Type

The **DeleteUserConfigurationResponseType** complex type specifies the response for a **DeleteUserConfiguration** operation request (section 3.1.4.2). The **DeleteUserConfigurationResponseType** complex type extends the **BaseResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.16.

3.1.4.2.3.2 m:DeleteUserConfigurationType Complex Type

The **DeleteUserConfigurationType** complex type specifies a **DeleteUserConfiguration** operation request (section <u>3.1.4.2</u>). The **DeleteUserConfigurationType** complex type extends the **BaseRequestType** complex type, as specified in <u>[MS-OXWSCDATA]</u> section 2.2.4.15.

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The following table summarizes the child element of the **DeleteUserConfigurationType** complex type.

Element	Туре	Description
UserConfigurationName	t:UserConfigurationNameType (section 2.2.4.4)	Specifies the name of the user configuration object to be deleted.

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 GetUserConfiguration

The **GetUserConfiguration** operation specifies the WSDL messages that are used to get user configuration objects.

The following is the WSDL port type definition of this operation.

```
<wsdl:operation name="GetUserConfiguration">
  <wsdl:input message="tns:GetUserConfigurationSoapIn"/>
  <wsdl:output message="tns:GetUserConfigurationSoapOut"/>
  </wsdl:operation>
```

The following is the WSDL binding specification for this operation.

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```
<wsdl:operation name="GetUserConfiguration">
  <soap:operation</pre>
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetUserConfiguration
" />
   <wsdl:input>
      <soap:header message="tns:GetUserConfigurationSoapIn" part="Impersonation"</pre>
use="literal"/>
       <soap:header message="tns:GetUserConfigurationSoapIn" part="MailboxCulture"</pre>
use="literal"/>
      <soap:header message="tns:GetUserConfigurationSoapIn" part="RequestVersion"</pre>
use="literal"/>
       <soap:body parts="request" use="literal" />
   </wsdl:input>
   <wsdl:output>
       <soap:body parts="GetUserConfigurationResult" use="literal" />
       <soap:header message="tns:GetUserConfigurationSoapOut" part="ServerVersion"</pre>
use="literal"/>
  </wsdl:output>
</wsdl:operation>
```

The protocol client sends a CreateUserConfigurationSoapIn request WSDL message, as specified in section 3.1.4.1.1.1, and the protocol server responds with a CreateUserConfigurationSoapOut response message, as defined in

3.1.4.3.1 Messages

The following table lists and describes the WSDL message definitions that are specific to the **GetUserConfiguration** operation.

Message	Description	
GetUserConfigurationSoapIn	Specifies the SOAP message that gets a user configuration object.	
GetUserConfigurationSoapOut	Specifies the SOAP message that is returned by the server in response to the GetUserConfiguration operation request.	

3.1.4.3.1.1 GetUserConfigurationSoapIn

The **GetUserConfigurationSoapIn** WSDL message specifies a **GetUserConfiguration** operation request to retrieve a user configuration object.

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

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

The parts of the **GetUserConfigurationSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description	
request	tns:GetUserConfiguration (section 3.1.4.3.2.1)	Specifies the SOAP body of a request to get a user configuration object. This part is required.	
Impersonation	t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating. This part is optional.	
MailboxCulture	t:MailboxCulture ([MS- OXWSCDATA] section 2.2.3.6)	Specifies a SOAP header that identifies the culture to be used for accessing the mailbox. The cultures are defined in [RFC3066] . This part is optional.	
RequestVersion	t:RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9)	Specifies a SOAP header that identifies the schema version for the GetUserConfiguration operation request (section 3.1.4.3).	

3.1.4.3.1.2 GetUserConfigurationSoapOut

The **GetUserConfigurationSoapOut** WSDL message specifies the server response to a **GetUserConfiguration** operation request to get a user configuration object.

The parts of the **GetUserConfigurationSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
GetUserConfigurationResult	tns:GetUserConfigurationResponse (section 3.1.4.3.2.2)	Specifies the SOAP body of the response to a GetUserConfiguration operation request.
ServerVersion	t:ServerVersionInfo ([MS- OXWSCDATA] section 2.2.3.10)	Specifies the SOAP header that identifies the server version for the response.

A successful **GetUserConfiguration** operation request returns a **GetUserConfigurationResponse** element, as specified in section 3.1.4.3.2.2, with the **ResponseClass** attribute of the **GetUserConfigurationResponseMessage** element set to "Success". The **ResponseCode** element of the **GetUserConfigurationResponseMessage** element is set to "NoError". The **GetUserConfigurationResponseMessage** element is a child element of the **ArrayOfResponseMessagesType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.10.

If the **GetUserConfiguration** operation request is not successful, it returns a **GetUserConfigurationResponse** element with the **ResponseClass** attribute of the **GetUserConfigurationResponseMessage** element set to "Error". The **ResponseCode** element of the **GetUserConfigurationResponseMessage** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.23.

3.1.4.3.2 Elements

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

Element	Description	
GetUserConfiguration	Specifies a request to get a user configuration object.	
GetUserConfigurationResponse	Specifies the response to a GetUserConfiguration operation request.	

3.1.4.3.2.1 GetUserConfiguration Element

The GetUserConfiguration element specifies a request to get a user configuration object.

```
<xs:element name="GetUserConfiguration"
  type="m:GetUserConfigurationType"
/>
```

3.1.4.3.2.2 GetUserConfigurationResponse Element

The **GetUserConfigurationResponse** element specifies the response to a **GetUserConfiguration** operation request (section <u>3.1.4.3</u>).

```
<xs:element name="GetUserConfigurationResponse"
   type="m:GetUserConfigurationResponseType"
/>
```

3.1.4.3.3 Complex Types

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

Complex type	Description	
GetUserConfigurationResponseMessageType	Specifies a user configuration object returned in a response.	
GetUserConfigurationResponseType	Specifies a response to a GetUserConfiguration operation request.	
GetUserConfigurationType	Specifies a GetUserConfiguration operation request.	

3.1.4.3.3.1 t:GetUserConfigurationResponseMessageType Complex Type

The **GetUserConfigurationResponseMessageType** complex type specifies a user configuration object that is returned in a response to a **GetUserConfiguration** operation request. The **GetUserConfigurationResponseMessageType** complex type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.57.

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The following table summarizes the child element of the **GetUserConfigurationResponseMessageType** complex type.

Element	Туре	Description
UserConfiguration	t:UserConfigurationType (section 2.2.4.5)	Specifies a single user configuration object.

3.1.4.3.3.2 m:GetUserConfigurationResponseType Complex Type

The **GetUserConfigurationResponseType** complex type specifies the response to a **GetUserConfiguration** operation request (section <u>3.1.4.3</u>). The **GetUserConfigurationResponseType** complex type extends the **BaseResponseMessageType** complex type, as specified in <u>[MS-OXWSCDATA]</u> section 2.2.4.16.

3.1.4.3.3.3 m:GetUserConfigurationType Complex Type

The **GetUserConfigurationType** complex type specifies a **GetUserConfiguration** operation request (section <u>3.1.4.3</u>). The **GetUserConfigurationType** complex type extends the **BaseRequestType** complex type, as specified in <u>[MS-OXWSCDATA]</u> section 2.2.4.15.

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

The following table summarizes the child elements of the **GetUserConfigurationType** complex type.

Element	Туре	Description
UserConfigurationName	t:UserConfigurationNameType (section 2.2.4.4)	Specifies the name and the associated folder for a user configuration object.
UserConfigurationProperties	t:UserConfigurationPropertyType (section 2.2.5.2)	Specifies the property types to get in a GetUserConfiguration operation (section 3.1.4.3).

3.1.4.3.4 Simple Types

None.

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 UpdateUserConfiguration

The **UpdateUserConfiguration** operation specifies the WSDL messages for updating user configuration objects.

The following is the WSDL port type definition of this operation.

```
<wsdl:operation name="UpdateUserConfiguration">
  <wsdl:input message="tns:UpdateUserConfigurationSoapIn"/>
  <wsdl:output message="tns:UpdateUserConfigurationSoapOut"/>
  </wsdl:operation>
```

The following is the WSDL binding specification for the operation.

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The protocol client sends a CreateUserConfigurationSoapIn request WSDL message, as specified in section 3.1.4.1.1.1, and the protocol server responds with a CreateUserConfigurationSoapOut response message, as defined in

3.1.4.4.1 Messages

The following table lists and describes the WSDL message definitions that are specific to the **UpdateUserConfiguration** operation.

Message	Description
UpdateUserConfigurationSoapIn	Specifies the SOAP message that updates a user configuration object.
UpdateUserConfigurationSoapOut	Specifies the SOAP message that is returned by the server in response to a UpdateUserConfiguration operation request.

3.1.4.4.1.1 UpdateUserConfigurationSoapIn

The **UpdateUserConfigurationSoapIn** WSDL message specifies an **UpdateUserConfiguration** operation request to update a user configuration object.

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

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

The parts of the **UpdateUserConfigurationSoapIn** WSDL message are listed and described in the following table.

Part name	Element/type	Description
request	tns:UpdateUserConfiguration (section 3.1.4.4.2.1)	Specifies the SOAP body of a request to update a user configuration object. This part

Part name	Element/type	Description
		is required.
Impersonation	t:ExchangeImpersonation ([MS-OXWSCDATA] section 2.2.3.3)	Specifies a SOAP header that identifies the user whom the client application is impersonating. This part is optional.
MailboxCulture	t:MailboxCulture ([MS- OXWSCDATA] section 2.2.3.6)	Specifies a SOAP header that identifies the culture to be used for accessing the mailbox. The cultures are defined in [RFC3066] . This part is optional.
RequestVersion	t:RequestServerVersion ([MS- OXWSCDATA] section 2.2.3.9)	Specifies a SOAP header that identifies the schema version for a UpdateUserConfiguration operation (section 3.1.4.4) request.

3.1.4.4.1.2 UpdateUserConfigurationSoapOut

The **UpdateUserConfigurationSoapOut** WSDL message specifies the server response to a **UpdateUserConfiguration** operation request to update a user configuration object.

The parts of the **UpdateUserConfigurationSoapOut** WSDL message are listed and described in the following table.

Part name	Element/type	Description
UpdateUserConfigurationResul t	tns:UpdateUserConfigurationRespons e (section 3.1.4.4.2.2)	Specifies the SOAP body of the response to an UpdateUserConfiguratio n operation request.
ServerVersion	t:ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10)	Specifies the SOAP header that identifies the server version for the response to an UpdateUserConfiguratio n operation request.

A successful **UpdateUserConfiguration** operation request returns an **UpdateUserConfigurationResponse** element, as specified in section 3.1.4.4.2.2, with the **ResponseClass** attribute of the **UpdateUserConfigurationResponseMessage** element set to "Success". The **ResponseCode** element of the **UpdateUserConfigurationResponseMessage** element is set to "NoError". The **UpdateUserConfigurationResponseMessage** element is a child element of the **ArrayOfResponseMessagesType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.10.

If the **UpdateUserConfiguration** operation request is not successful, it returns an **UpdateUserConfigurationResponse** element with the **ResponseClass** attribute of the **UpdateUserConfigurationResponseMessage** element set to "Error". The **ResponseCode** element of the **UpdateUserConfigurationResponseMessage** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.23.

3.1.4.4.2 Elements

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

Element	Description
UpdateUserConfiguration	Specifies a request to update a user configuration object.
UpdateUserConfigurationResponse	Specifies the response to an UpdateUserConfiguration operation request.

3.1.4.4.2.1 UpdateUserConfiguration Element

The **UpdateUserConfiguration** element specifies a request to update a user configuration object.

```
<xs:element name="UpdateUserConfiguration"
  type="m:UpdateUserConfigurationType"
/>
```

3.1.4.4.2.2 UpdateUserConfigurationResponse Element

The **UpdateUserConfigurationResponse** element specifies the response to an **UpdateUserConfiguration** operation request (section 3.1.4.4).

```
<xs:element name="UpdateUserConfigurationResponse"
   type="m:UpdateUserConfigurationResponseType"
/>
```

3.1.4.4.3 Complex Types

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

Complex type	Description
UpdateUserConfigurationResponseType	Specifies the response to an UpdateUserConfiguration operation request.
UpdateUserConfigurationType	Specifies an UpdateUserConfiguration operation request.

3.1.4.4.3.1 m:UpdateUserConfigurationResponseType Complex Type

The **UpdateUserConfigurationResponseType** complex type specifies the response to an **UpdateUserConfiguration** operation request (section <u>3.1.4.4</u>). The **UpdateUserConfigurationResponseType** complex type extends the **BaseResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.16.

```
<xs:complexType name="UpdateUserConfigurationResponseType">
    <xs:complexContent>
        <xs:extension</pre>
```

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```
base="m:BaseResponseMessageType"
    />
    </xs:complexContent>
</xs:complexType>
```

3.1.4.4.3.2 m:UpdateUserConfigurationType Complex Type

The **UpdateUserConfigurationType** complex type specifies an **UpdateUserConfiguration** operation request (section <u>3.1.4.4</u>). The **UpdateUserConfigurationType** complex type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.15.

The following table summarizes the child element of the ${\bf UpdateUserConfigurationType}$ complex type.

Element	Туре	Description
UserConfiguration	t:UserConfigurationType (section 2.2.4.5)	Specifies the user configuration object that contains updated data.

3.1.4.4.4 Simple Types

None.

3.1.4.4.5 Attributes

None.

3.1.4.4.6 Groups

None.

3.1.4.4.7 Attribute Groups

None.

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3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

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None.

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

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

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

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

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

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"</pre>
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
     <wsdl:types>
          <xs:schema id="messages" elementFormDefault="qualified" version="Exchange2013"</pre>
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
               <xs:include schemaLocation="MS-OXWSUSRCFG-messages.xsd"/>
          </xs:schema>
          <xs:schema id="types" elementFormDefault="qualified" version="Exchange2013"</pre>
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
               <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
          </xs:schema>
     </wsdl:types>
     <wsdl:portType name="ExchangeServicePortType">
          <wsdl:operation name="CreateUserConfiguration">
               <wsdl:input message="tns:CreateUserConfigurationSoapIn"/>
               <wsdl:output message="tns:CreateUserConfigurationSoapOut"/>
          </wsdl:operation>
          <wsdl:operation name="DeleteUserConfiguration">
               <wsdl:input message="tns:DeleteUserConfigurationSoapIn"/>
               <wsdl:output message="tns:DeleteUserConfigurationSoapOut"/>
          </wsdl:operation>
          <wsdl:operation name="GetUserConfiguration">
               <wsdl:input message="tns:GetUserConfigurationSoapIn"/>
               <wsdl:output message="tns:GetUserConfigurationSoapOut"/>
          </wsdl:operation>
```

```
<wsdl:operation name="UpdateUserConfiguration">
               <wsdl:input message="tns:UpdateUserConfigurationSoapIn"/>
               <wsdl:output message="tns:UpdateUserConfigurationSoapOut"/>
          </wsdl:operation>
     </wsdl:portType>
     <wsdl:binding name="ExchangeServiceBinding" type="tns:ExchangeServicePortType">
          <wsdl:documentation>
               <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0"</pre>
xmlns:wsi="http://ws-i.org/schemas/conformanceClaim/"/>
          </wsdl:documentation>
          <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
          <wsdl:operation name="CreateUserConfiguration">
               <soap:operation</pre>
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/CreateUserConfigurat
ion"/>
               <wsdl:input>
                    <soap:header message="tns:CreateUserConfigurationSoapIn"</pre>
part="Impersonation" use="literal"/>
                     <soap:header message="tns:CreateUserConfigurationSoapIn"</pre>
part="MailboxCulture" use="literal"/>
                    <soap:header message="tns:CreateUserConfigurationSoapIn"</pre>
part="RequestVersion" use="literal"/>
                    <soap:body parts="request" use="literal"/>
               </wsdl:input>
               <wsdl:output>
                     <soap:body parts="CreateUserConfigurationResult" use="literal"/>
                     <soap:header message="tns:CreateUserConfigurationSoapOut"</pre>
part="ServerVersion" use="literal"/>
               </wsdl:output>
          </wsdl:operation>
          <wsdl:operation name="DeleteUserConfiguration">
               <soap:operation</pre>
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DeleteUserConfigurat
ion"/>
               <wsdl:input>
                    <soap:header message="tns:DeleteUserConfigurationSoapIn"</pre>
part="Impersonation" use="literal"/>
                     <soap:header message="tns:DeleteUserConfigurationSoapIn"</pre>
part="MailboxCulture" use="literal"/>
                    <soap:header message="tns:DeleteUserConfigurationSoapIn"</pre>
part="RequestVersion" use="literal"/>
                    <soap:body parts="request" use="literal"/>
               </wsdl:input>
               <wsdl:output>
                    <soap:body parts="DeleteUserConfigurationResult" use="literal"/>
                     <soap:header message="tns:DeleteUserConfigurationSoapOut"</pre>
part="ServerVersion" use="literal"/>
               </wsdl:output>
          </wsdl:operation>
          <wsdl:operation name="GetUserConfiguration">
               <soap:operation</pre>
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetUserConfiguration
"/>
               <wsdl:input>
                     <soap:header message="tns:GetUserConfigurationSoapIn"</pre>
part="Impersonation" use="literal"/>
                    <soap:header message="tns:GetUserConfigurationSoapIn"</pre>
part="MailboxCulture" use="literal"/>
                    <soap:header message="tns:GetUserConfigurationSoapIn"</pre>
part="RequestVersion" use="literal"/>
                    <soap:body parts="request" use="literal"/>
```

```
</wsdl:input>
               <wsdl:output>
                    <soap:body parts="GetUserConfigurationResult" use="literal"/>
                    <soap:header message="tns:GetUserConfigurationSoapOut"</pre>
part="ServerVersion" use="literal"/>
               </wsdl:output>
          </wsdl:operation>
          <wsdl:operation name="UpdateUserConfiguration">
               <soap:operation</pre>
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/UpdateUserConfigurat
ion"/>
               <wsdl:input>
                    <soap:header message="tns:UpdateUserConfigurationSoapIn"</pre>
part="Impersonation" use="literal"/>
                    <soap:header message="tns:UpdateUserConfigurationSoapIn"</pre>
part="MailboxCulture" use="literal"/>
                    <soap:header message="tns:UpdateUserConfigurationSoapIn"</pre>
part="RequestVersion" use="literal"/>
                    <soap:body parts="request" use="literal"/>
               </wsdl:input>
               <wsdl:output>
                    <soap:body parts="UpdateUserConfigurationResult" use="literal"/>
                    <soap:header message="tns:UpdateUserConfigurationSoapOut"</pre>
part="ServerVersion" use="literal"/>
               </wsdl:output>
          </wsdl:operation>
     </wsdl:binding>
     <wsdl:message name="CreateUserConfigurationSoapIn">
          <wsdl:part name="request" element="tns:CreateUserConfiguration"/>
          <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
          <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
          <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
     </wsdl:message>
     <wsdl:message name="CreateUserConfigurationSoapOut">
          <wsdl:part name="CreateUserConfigurationResult"</pre>
element="tns:CreateUserConfigurationResponse"/>
          <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
     </wsdl:message>
     <wsdl:message name="DeleteUserConfigurationSoapIn">
          <wsdl:part name="request" element="tns:DeleteUserConfiguration"/>
          <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
          <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
          <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
     </wsdl:message>
     <wsdl:message name="DeleteUserConfigurationSoapOut">
          <wsdl:part name="DeleteUserConfigurationResult"</pre>
element="tns:DeleteUserConfigurationResponse"/>
          <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
     </wsdl:message>
     <wsdl:message name="GetUserConfigurationSoapIn">
          <wsdl:part name="request" element="tns:GetUserConfiguration"/>
          <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
          <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
          <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
     </wsdl:message>
     <wsdl:message name="GetUserConfigurationSoapOut">
          <wsdl:part name="GetUserConfigurationResult"</pre>
element="tns:GetUserConfigurationResponse"/>
          <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
     </wsdl:message>
```

7 Appendix B: Full XML Schema

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

Schema name	Prefix	Section
Messages schema	m:	<u>7.1</u>
Types schema	t:	<u>7.2</u>

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

7.1 Messages Schema

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

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

File name	Defining specification
MS-OXWSCDATA-messages.xsd	[MS-OXWSCDATA] section 7.1

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"</pre>
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
elementFormDefault="qualified" version="Exchange2013" id="messages">
     <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
     <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"</pre>
schemaLocation="MS-OXWSUSRCFG-types.xsd"/>
     <xs:complexType name="CreateUserConfigurationType">
          <xs:complexContent>
               <xs:extension base="m:BaseRequestType">
                    <xs:sequence>
                         <xs:element name="UserConfiguration"</pre>
type="t:UserConfigurationType"/>
                    </xs:sequence>
               </xs:extension>
          </xs:complexContent>
     </xs:complexType>
     <xs:element name="CreateUserConfiguration" type="m:CreateUserConfigurationType"/>
     <xs:complexType name="CreateUserConfigurationResponseType">
          <xs:complexContent>
               <xs:extension base="m:BaseResponseMessageType"/>
          </xs:complexContent>
     </xs:complexType>
     <xs:element name="CreateUserConfigurationResponse"</pre>
type="m:CreateUserConfigurationResponseType"/>
     <xs:complexType name="DeleteUserConfigurationType">
```

```
<xs:complexContent>
               <xs:extension base="m:BaseRequestType">
                    <xs:sequence>
                         <xs:element name="UserConfigurationName"</pre>
type="t:UserConfigurationNameType"/>
                    </xs:sequence>
               </xs:extension>
          </xs:complexContent>
     </xs:complexType>
     <xs:element name="DeleteUserConfiguration" type="m:DeleteUserConfigurationType"/>
     <xs:complexType name="DeleteUserConfigurationResponseType">
          <xs:complexContent>
               <xs:extension base="m:BaseResponseMessageType"/>
          </xs:complexContent>
     </xs:complexType>
     <xs:element name="DeleteUserConfigurationResponse"</pre>
type="m:DeleteUserConfigurationResponseType"/>
     <xs:complexType name="GetUserConfigurationType">
          <xs:complexContent>
               <xs:extension base="m:BaseRequestType">
                    <xs:sequence>
                         <xs:element name="UserConfigurationName"</pre>
type="t:UserConfigurationNameType"/>
                         <xs:element name="UserConfigurationProperties"</pre>
type="t:UserConfigurationPropertyType"/>
                    </xs:sequence>
               </xs:extension>
          </xs:complexContent>
     </xs:complexType>
     <xs:element name="GetUserConfiguration" type="m:GetUserConfigurationType"/>
     <xs:complexType name="GetUserConfigurationResponseMessageType">
          <xs:complexContent>
               <xs:extension base="m:ResponseMessageType">
                    <xs:sequence>
                         <xs:element name="UserConfiguration" type="t:UserConfigurationType"</pre>
minOccurs="0"/>
                    </xs:sequence>
               </xs:extension>
          </xs:complexContent>
     </xs:complexType>
     <xs:complexType name="GetUserConfigurationResponseType">
          <xs:complexContent>
               <xs:extension base="m:BaseResponseMessageType"/>
          </xs:complexContent>
     </xs:complexType>
     <xs:element name="GetUserConfigurationResponse"</pre>
type="m:GetUserConfigurationResponseType"/>
     <xs:complexType name="UpdateUserConfigurationType">
          <xs:complexContent>
               <xs:extension base="m:BaseRequestType">
                    <xs:sequence>
                         <xs:element name="UserConfiguration"</pre>
type="t:UserConfigurationType"/>
                    </xs:sequence>
               </xs:extension>
          </xs:complexContent>
     </xs:complexType>
     <xs:element name="UpdateUserConfiguration" type="m:UpdateUserConfigurationType"/>
     <xs:complexType name="UpdateUserConfigurationResponseType">
```

7.2 Types Schema

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

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

File name	Defining specification
MS-OXWSFOLD-types.xsd	[MS-OXWSFOLD] section 6

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"</pre>
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified" version="Exchange2013" id="types">
    <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
     <xs:include schemaLocation="MS-OXWSFOLD-types.xsd"/>
     <xs:complexType name="UserConfigurationNameType">
          <xs:complexContent>
               <xs:extension base="t:TargetFolderIdType">
                    <xs:attribute name="Name" type="t:NonEmptyStringType" use="required"/>
               </xs:extension>
          </xs:complexContent>
     </xs:complexType>
     <xs:simpleType name="UserConfigurationDictionaryObjectTypesType">
          <xs:restriction base="xs:string">
               <xs:enumeration value="DateTime"/>
               <xs:enumeration value="Boolean"/>
               <xs:enumeration value="Byte"/>
               <xs:enumeration value="String"/>
               <xs:enumeration value="Integer32"/>
               <xs:enumeration value="UnsignedInteger32"/>
               <xs:enumeration value="Integer64"/>
               <xs:enumeration value="UnsignedInteger64"/>
               <xs:enumeration value="StringArray"/>
               <xs:enumeration value="ByteArray"/>
          </xs:restriction>
     </xs:simpleType>
     <xs:complexType name="UserConfigurationDictionaryObjectType">
          <xs:sequence>
               <xs:element name="Type" type="t:UserConfigurationDictionaryObjectTypesType"/>
               <xs:element name="Value" type="xs:string" maxOccurs="unbounded"/>
          </xs:sequence>
     </xs:complexType>
     <xs:complexType name="UserConfigurationDictionaryEntryType">
          <xs:sequence>
```

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```
<xs:element name="DictionaryKey"</pre>
type="t:UserConfigurationDictionaryObjectType"/>
               <xs:element name="DictionaryValue"</pre>
type="t:UserConfigurationDictionaryObjectType" nillable="true"/>
          </xs:sequence>
     </xs:complexType>
     <xs:complexType name="UserConfigurationDictionaryType">
          <xs:sequence>
               <xs:element name="DictionaryEntry"</pre>
type="t:UserConfigurationDictionaryEntryType" minOccurs="0" maxOccurs="unbounded"/>
          </xs:sequence>
     </xs:complexType>
     <xs:complexType name="UserConfigurationType">
          <xs:sequence>
               <xs:element name="UserConfigurationName" type="t:UserConfigurationNameType"/>
               <xs:element name="ItemId" type="t:ItemIdType" minOccurs="0"/>
               <xs:element name="Dictionary" type="t:UserConfigurationDictionaryType"</pre>
minOccurs="0"/>
               <xs:element name="XmlData" type="xs:base64Binary" minOccurs="0"/>
               <xs:element name="BinaryData" type="xs:base64Binary" minOccurs="0"/>
          </xs:sequence>
     </xs:complexType>
     <xs:simpleType name="UserConfigurationPropertyType">
          <xs:list>
               <xs:simpleType>
                    <xs:restriction base="xs:string">
                         <xs:enumeration value="Id"/>
                         <xs:enumeration value="Dictionary"/>
                         <xs:enumeration value="XmlData"/>
                         <xs:enumeration value="BinaryData"/>
                         <xs:enumeration value="All"/>
                    </xs:restriction>
               </xs:simpleType>
          </xs:list>
     </xs:simpleType>
</xs:schema>
```

8 Appendix C: Product Behavior

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

- Microsoft Exchange Server 2010
- Microsoft Exchange Server 2013

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

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

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

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