

[MS-OXWSUSRCFG]: User Configuration Web Service Protocol Specification

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1 Introduction

This document specifies the User Configuration Web Service protocol. The User Configuration Web Service protocol is used to access user configuration objects. Clients use the SOAP protocol [\[SOAP1.1\]](#) to contact the user configuration service.

1.1 Glossary

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

folder associated item (FAI)
Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Socket Layers (HTTPS)
property
SOAP body
SOAP message
Web Services Description Language (WSDL)
WSDL message
WSDL port type
XML
XML namespace
XML schema

The following terms are specific to this document:

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

1.2 References

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. 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-OXGLOS] Microsoft Corporation, "[Exchange Server Protocols Master Glossary](#)", April 2008.

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

[MS-OXWSFOLD] Microsoft Corporation, "[Folders and Folder Permissions Web Service Protocol Specification](#)", July 2009.

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

[RFC2396] Berners-Lee, T., Fielding, R., and Masinter, L., "Uniform Resource Identifiers (URI): Generic Syntax", RFC 2396, August 1998, <http://www.ietf.org/rfc/rfc2396.txt>

[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>

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

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

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

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

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

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

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

1.2.2 Informative References

None.

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 items (FAIs)**.

The following figure shows the User Configuration Web Service request/response messages.

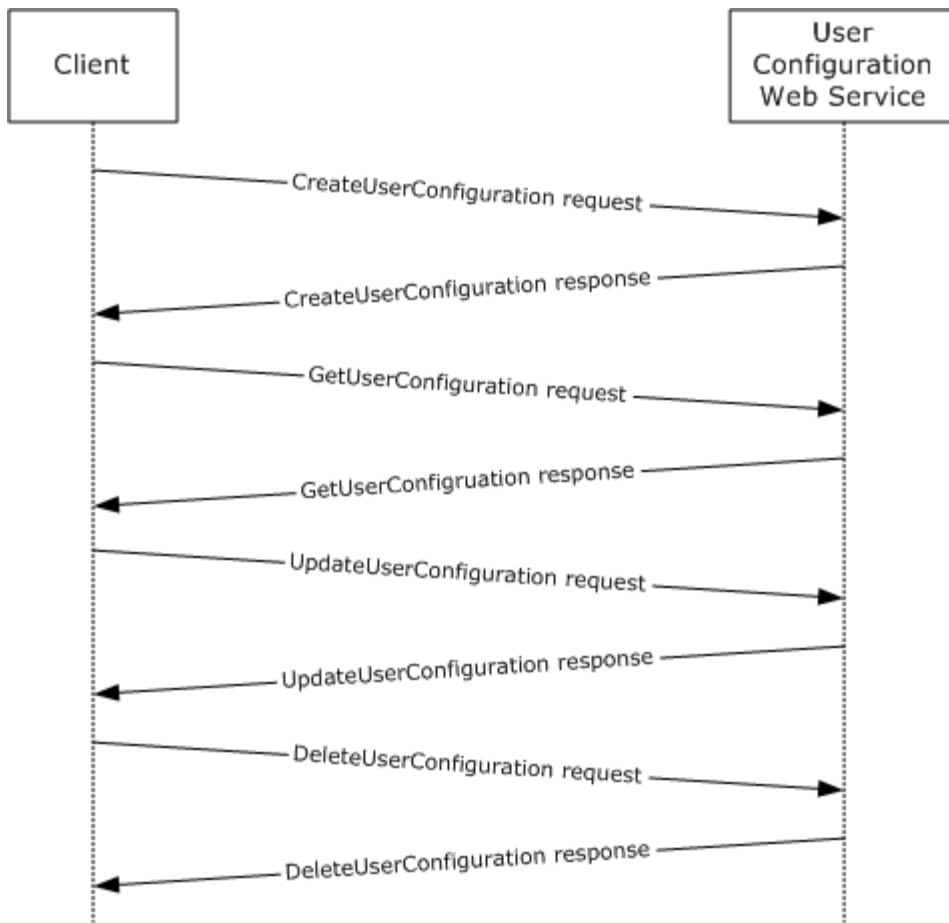


Figure 1: User Configuration Web service request/response messages

1.4 Relationship to Other Protocols

The User Configuration Web service protocol uses SOAP over **HTTP** and SOAP over **HTTPS**, as shown in the following layering diagrams.

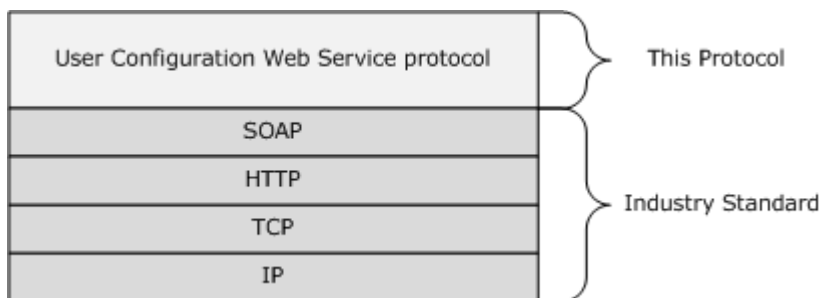


Figure 2: User Configuration Web Service protocol HTTP stack

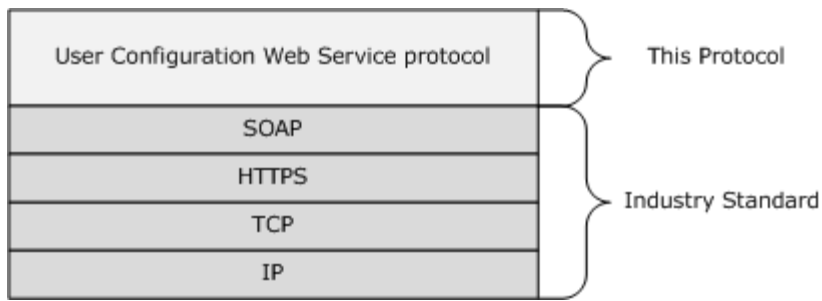


Figure 3: User Configuration Web Service protocol HTTPS stack

1.5 Prerequisites/Preconditions

None.

1.6 Applicability Statement

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

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.
- **Security and Authentication Methods:** This protocol relies on the Web server that is hosting it to perform authentication.
- **Capability Negotiation:** None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

The SOAP version supported is SOAP 1.1. For details, see [\[SOAP1.1\]](#).

2.2 Common Message Syntax

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

2.2.1 Namespaces

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

2.2.2 Simple Types

2.2.2.1 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
    base="xs:string"
  >
    <xs:enumeration
      value="DateTime"
    />
    <xs:enumeration
      value="Boolean"
    />
  </xs:restriction>
</xs:simpleType>
```

```

/>
<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>

```

Enumeration

The following values are defined by the **UserConfigurationDictionaryObjectTypesType** simple type:

Value	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.

2.2.2.2 t:UserConfigurationPropertyType Simple Type

The [UserConfigurationPropertyType](#) simple type specifies the property types to get in a [GetUserConfiguration](#) operation (section [3.1.4.3](#)).

```
<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>
```

Enumeration

The following values are defined by the **UserConfigurationPropertyType** simple type:

Value	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.

2.2.3 Complex Types

2.2.3.1 t:UserConfigurationDictionaryEntryType Complex Type

The [UserConfigurationDictionaryEntryType](#) complex type specifies the contents of a single dictionary entry property.

```
<xs:complexType name="UserConfigurationDictionaryEntryType">
```

```

<xs:sequence>
  <xs:element name="DictionaryKey"
    type="t:UserConfigurationDictionaryObjectType"
  />
  <xs:element name="DictionaryValue"
    type="t:UserConfigurationDictionaryObjectType"
    nillable="true"
  />
</xs:sequence>
</xs:complexType>

```

Child Elements

Element	Type	Description
DictionaryKey	t:UserConfigurationDictionaryObjectType	Specifies the dictionary key for a dictionary property.
DictionaryValue	t:UserConfigurationDictionaryObjectType	Specifies the dictionary value for a dictionary property.

2.2.3.2 t:UserConfigurationDictionaryObjectType Complex Type

The [UserConfigurationDictionaryObjectType](#) complex type specifies a dictionary object.

```

<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>

```

Child Elements

Element	Type	Description
Type	t:UserConfigurationDictionaryObjectTypesType	Specifies the dictionary object type.
Value	xs:string	Specifies the dictionary object value as a string.

2.2.3.3 t:UserConfigurationDictionaryType Complex Type

The [UserConfigurationDictionaryType](#) complex type specifies a set of dictionary properties.

```

<xs:complexType name="UserConfigurationDictionaryType">
  <xs:sequence>

```

```

    <xs:element name="DictionaryEntry"
      type="t:UserConfigurationDictionaryEntryType"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>

```

Child Elements

Element	Type
DictionaryEntry	t:UserConfigurationDictionaryEntryType

2.2.3.4 t:UserConfigurationNameType Complex Type

The [UserConfigurationNameType](#) complex type specifies the name and the associated folder for a user configuration object.

```

<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>

```

Attributes

Name	Type	Description
Name	t:NonEmptyStringType	Specifies the name of a user configuration object.

2.2.3.5 t:UserConfigurationType Complex Type

The [UserConfigurationType](#) complex types specifies a single user configuration object.

```

<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"
        minOccurs="0"
    />
    <xs:element name="XmlData"
        type="xs:base64Binary"
        minOccurs="0"
    />
    <xs:element name="BinaryData"
        type="xs:base64Binary"
        minOccurs="0"
    />
</xs:sequence>
</xs:complexType>

```

Child Elements

Element	Type	Description
UserConfigurationName	t:UserConfigurationNameType	Specifies the user configuration object name. The user configuration object name MUST be present.
ItemId	t:ItemIdType	Specifies the user configuration object item identifier.
Dictionary	t:UserConfigurationDictionaryType	Specifies a set of dictionary property entries.
XmlData	xs:base64Binary	Specifies XML data property content.
BinaryData	xs:base64Binary	Specifies binary data property content.

2.2.4 Elements

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

2.2.5 Attributes

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

2.2.6 Groups

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

2.2.7 Attribute Groups

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

2.2.8 Messages

This specification does not define any common WSDL message 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 port type.

Operation	Description
CreateUserConfiguration	Specifies the WSDL messages for creating user configuration objects.
DeleteUserConfiguration	Specifies the WSDL messages for deleting user configuration objects.
GetUserConfiguration	Specifies the WSDL messages for getting user configuration objects.
UpdateUserConfiguration	Specifies the WSDL messages for updating user configuration objects.

3.1.1 Abstract Data Model

The User Configuration Web Service protocol is a stateless protocol.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing

This protocol includes the operations that are listed in the following table. The operations do not have any sequencing rules.

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)	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.


```

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

```

Request

Message Format	Description
tns:CreateUserConfigurationSoapIn	Specifies the SOAP message that is sent to the server to create a user configuration object.

Response

Message Format	Description
tns:CreateUserConfigurationSoapOut	Specifies the SOAP message that is sent from the server after an attempt to create a user configuration object.

3.1.4.1.1 Simple Types

This specification does not define any specific XML schema simple type definitions for this operation.

3.1.4.1.2 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.1.2.1 m:CreateUserConfigurationResponseType Complex Type

The [CreateUserConfigurationResponseType](#) complex type specifies a response for the [CreateUserConfiguration](#) operation (section [3.1.4.1](#)).

```

<xs:complexType name="CreateUserConfigurationResponseType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseResponseMessageType"
    />
  </xs:complexContent>
</xs:complexType>

```

3.1.4.1.2.2 m:CreateUserConfigurationType Complex Type

The [CreateUserConfigurationType](#) complex type specifies a [CreateUserConfiguration](#) operation (section [3.1.4.1](#)) request.

```

<xs:complexType name="CreateUserConfigurationType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >

```

```

<xs:sequence>
  <xs:element name="UserConfiguration"
    type="t:UserConfigurationType"
    />
</xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

Child Elements

Element	Type	Description
UserConfiguration	t:UserConfigurationType	Specifies the user configuration object to create.

3.1.4.1.3 Elements

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

3.1.4.1.3.1 CreateUserConfiguration Element

The [tns:CreateUserConfiguration](#) element specifies a request to create a user configuration object.

```

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

```

3.1.4.1.3.2 CreateUserConfigurationResponse Element

The [tns:CreateUserConfigurationResponse](#) element specifies a response to a [CreateUserConfiguration](#) operation (section [3.1.4.1](#)) request.

```

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

```

3.1.4.1.4 Attributes

This specification does not define any specific XML schema attribute definitions for this operation.

3.1.4.1.5 Groups

This specification does not define any specific XML schema group definitions for this operation.

3.1.4.1.6 Attribute Groups

This specification does not define any specific XML schema attribute group definitions for this operation.

3.1.4.1.7 Messages

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

3.1.4.1.7.1 CreateUserConfigurationSoapIn

The [CreateUserConfigurationSoapIn](#) message contains four parts.

Part Name	Element/Type	Description
request	tns:CreateUserConfiguration	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies an account to impersonate.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the server. The cultures are defined by [RFC3066] .
RequestVersion	t:RequestServerVersion	Specifies the schema version for the CreateUserConfiguration operation (section 3.1.4.1) request.

3.1.4.1.7.2 CreateUserConfigurationSoapOut

The [CreateUserConfigurationSoapOut](#) message contains two parts.

Part Name	Element/Type	Description
CreateUserConfigurationResult	tns:CreateUserConfigurationResponse	Specifies the response.
ServerVersion	t:ServerVersionInfo	Specifies the server version for the response.

3.1.4.2 DeleteUserConfiguration

The [DeleteUserConfiguration](#) operation specifies the WSDL messages for deleting user configuration objects.

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

Request

Message Format	Description
tns:DeleteUserConfigurationSoapIn	Specifies the SOAP message that is sent to the server to delete a user configuration object.

Response

Message Format	Description
tns:DeleteUserConfigurationSoapOut	Specifies the SOAP message that is sent from the server after an attempt to delete a user configuration object.

3.1.4.2.1 Simple Types

This specification does not define any specific XML schema simple type definitions for this operation.

3.1.4.2.2 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.2.2.1 m:DeleteUserConfigurationResponseType Complex Type

The [m:DeleteUserConfigurationResponseType](#) complex type specifies a response for the [DeleteUserConfiguration](#) operation (section [3.1.4.2](#)).

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

3.1.4.2.2.2 m:DeleteUserConfigurationType Complex Type

The [DeleteUserConfigurationType](#) complex type specifies a [DeleteUserConfiguration](#) operation (section [3.1.4.2](#)) request.

```
<xs:complexType name="DeleteUserConfigurationType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
    <xs:sequence>
      <xs:element name="UserConfigurationName"
        type="t:UserConfigurationNameType"
      />
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
UserConfigurationName	t:UserConfigurationNameType	Specifies the name of the user configuration object.

3.1.4.2.3 Elements

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

3.1.4.2.3.1 DeleteUserConfiguration Element

The [DeleteUserConfiguration](#) element specifies a request to delete a user configuration object.

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

3.1.4.2.3.2 DeleteUserConfigurationResponse Element

The [DeleteUserConfigurationResponse](#) element specifies a response to a [DeleteUserConfiguration](#) operation (section [3.1.4.2](#)) request.

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

3.1.4.2.4 Attributes

This specification does not define any specific XML schema attribute definitions for this operation.

3.1.4.2.5 Groups

This specification does not define any specific XML schema group definitions for this operation.

3.1.4.2.6 Attribute Groups

This specification does not define any specific XML schema attribute group definitions for this operation.

3.1.4.2.7 Messages

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

3.1.4.2.7.1 DeleteUserConfigurationSoapIn

The [DeleteUserConfigurationSoapIn](#) message contains the four parts listed in the following table.

Part Name	Element/Type	Description
request	tns:DeleteUserConfiguration	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies an account to impersonate.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the server. The cultures are defined by http://www.ietf.org/rfc/rfc3066.txt .

Part Name	Element/Type	Description
RequestVersion	t:RequestServerVersion	Specifies the schema version for the DeleteUserConfiguration operation (section 3.1.4.2) request.

3.1.4.2.7.2 DeleteUserConfigurationSoapOut

The [DeleteUserConfigurationSoapOut](#) message contains the two parts described in the following table.

Part Name	Element/Type	Description
DeleteUserConfigurationResult	tns:DeleteUserConfigurationResponse	Specifies the response.
ServerVersion	t:ServerVersionInfo	Specifies the server version for the response.

3.1.4.3 GetUserConfiguration

The [GetUserConfiguration](#) operation specifies the WSDL messages that are used to get user configuration objects.

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

Request

Message Format	Description
tns:GetUserConfigurationSoapIn	Specifies the SOAP message that is sent to the server to get a user configuration object.

Response

Message Format	Description
tns:GetUserConfigurationSoapOut	Specifies the SOAP message that is sent from the server after an attempt to get a user configuration object.

3.1.4.3.1 Simple Types

This specification does not define any specific XML schema simple type definitions for this operation.

3.1.4.3.2 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.3.2.1 t:GetUserConfigurationResponseMessageType Complex Type

The [GetUserConfigurationResponseMessageType](#) complex type specifies user configuration objects that are returned in a response.

```
<xs:complexType name="GetUserConfigurationResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ResponseMessageType"
    >
      <xs:sequence>
        <xs:element name="UserConfiguration"
          type="t:UserConfigurationType"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
UserConfiguration	t:UserConfigurationType	Specifies a single user configuration object.

3.1.4.3.2.2 m:GetUserConfigurationResponseType Complex Type

The [GetUserConfigurationResponseType](#) complex type specifies the response for the [GetUserConfiguration](#) operation (section [3.1.4.3](#)).

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

3.1.4.3.2.3 m:GetUserConfigurationType Complex Type

The [GetUserConfigurationType](#) complex type specifies a [GetUserConfiguration](#) operation (section [3.1.4.3](#)) request.

```
<xs:complexType name="GetUserConfigurationType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="UserConfigurationName"
          type="t:UserConfigurationNameType"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

```

        />
        <xs:element name="UserConfigurationProperties"
            type="t:UserConfigurationPropertyType"
        />
    </xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

Child Elements

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

3.1.4.3.3 Elements

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

3.1.4.3.3.1 GetUserConfiguration Element

The [GetUserConfiguration](#) element specifies a request to get a user configuration object.

```

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

```

3.1.4.3.3.2 GetUserConfigurationResponse Element

The [GetUserConfigurationResponse](#) element specifies a response to a [GetUserConfiguration](#) operation (section [3.1.4.3](#)) request.

```

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

```

3.1.4.3.4 Attributes

This specification does not define any specific XML schema attribute definitions for this operation.

3.1.4.3.5 Groups

This specification does not define any specific XML schema group definitions for this operation.

3.1.4.3.6 Attribute Groups

This specification does not define any specific XML schema attribute group definitions for this operation.

3.1.4.3.7 Messages

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

3.1.4.3.7.1 GetUserConfigurationSoapIn

The [GetUserConfigurationSoapIn](#) message contains four parts.

Part Name	Element/Type	Description
request	tns:GetUserConfiguration	Specifies the request.
Impersonation	t:ExchangeImpersonation	Specifies an account to impersonate.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the server. The cultures are defined by [RFC3066] .
RequestVersion	t:RequestServerVersion	Specifies the schema version for the GetUserConfiguration operation (section 3.1.4.3) request.

3.1.4.3.7.2 GetUserConfigurationSoapOut

The [GetUserConfigurationSoapOut](#) message contains two parts.

Part Name	Element/Type	Description
GetUserConfigurationResult	tns:GetUserConfigurationResponse	Specifies the response.
ServerVersion	t:ServerVersionInfo	Specifies the server version for the response.

3.1.4.4 UpdateUserConfiguration

The [UpdateUserConfiguration](#) operation specifies the WSDL messages for updating user configuration objects.

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

Request

Message Format	Description
tns:UpdateUserConfigurationSoapIn	Specifies the SOAP message that is sent to the server to update a user configuration object.

Response

Message Format	Description
tns:UpdateUserConfigurationSoapOut	Specifies the SOAP message that is sent from the server after an attempt to update a user configuration object.

3.1.4.4.1 Simple Types

This specification does not define any specific XML schema simple type definitions for this operation.

3.1.4.4.2 Complex Types

The following XML schema complex type definitions are specific to this operation.

3.1.4.4.2.1 m:UpdateUserConfigurationResponseType Complex Type

The [UpdateUserConfigurationResponseType](#) complex type specifies the response object for the [UpdateUserConfiguration](#) operation (section [3.1.4.4](#)).

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

3.1.4.4.2.2 m:UpdateUserConfigurationType Complex Type

The [UpdateUserConfigurationType](#) complex type specifies an [UpdateUserConfiguration](#) operation (section [3.1.4.4](#)) request.

```
<xs:complexType name="UpdateUserConfigurationType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
    <xs:sequence>
      <xs:element name="UserConfiguration"
        type="t:UserConfigurationType"
      />
    </xs:sequence>
  </xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
UserConfiguration	t:UserConfigurationType	Specifies the user configuration object that contains updated data.

3.1.4.4.3 Elements

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

3.1.4.4.3.1 UpdateUserConfiguration Element

The [UpdateUserConfiguration](#) element specifies a request to update a user configuration object.

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

3.1.4.4.3.2 UpdateUserConfigurationResponse Element

The [UpdateUserConfigurationResponse](#) element specifies a response to an [UpdateUserConfiguration](#) operation (section [3.1.4.4](#)) request.

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

3.1.4.4.4 Attributes

This specification does not define any specific XML schema attribute definitions for this operation.

3.1.4.4.5 Groups

This specification does not define any specific XML schema group definitions for this operation.

3.1.4.4.6 Attribute Groups

This specification does not define any specific XML schema attribute group definitions for this operation.

3.1.4.4.7 Messages

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

3.1.4.4.7.1 UpdateUserConfigurationSoapIn

The [UpdateUserConfigurationSoapIn](#) message contains four parts.

Part Name	Element/Type	Description
request	tns:UpdateUserConfiguration	Specifies the request.

Part Name	Element/Type	Description
Impersonation	t:ExchangeImpersonation	Specifies an account to impersonate.
MailboxCulture	t:MailboxCulture	Specifies the culture to use for accessing the server. The cultures are defined by [RFC3066] .
RequestVersion	t:RequestServerVersion	Specifies the schema version for the UpdateUserConfiguration operation (section 3.1.4.4) request.

3.1.4.4.7.2 UpdateUserConfigurationSoapOut

The [UpdateUserConfigurationSoapOut](#) message contains two parts.

Part Name	Element/Type	Description
UpdateUserConfigurationResult	tns:UpdateUserConfigurationResponse	Specifies the response.
ServerVersion	t:ServerVersionInfo	Specifies the server version for the response.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

3.2 Client Details

None.

3.2.1 Abstract Data Model

None.

3.2.2 Timers

None.

3.2.3 Initialization

None.

3.2.4 Message Processing Events and Sequencing

None.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

None.

4 Protocol Examples

None.

5 Security

5.1 Security Considerations for Implementers

The User Configuration Web Service protocol does not use any additional security mechanisms.

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. The contents of each file are included in this section.

File name	Description	Section
MS-OXWSUSRCFG.wsdl	Contains the WSDL for the implementation of this protocol.	6.1
MS-OXWSUSRCFG-messages.xsd	Contains the XML schema message definitions that are used in this protocol.	6.2
MS-OXWSUSRCFG-types.xsd	Contains the XML schema type definitions that are used in this protocol.	6.3

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.

6.1 WSDL

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/"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
  <wsdl:types>
    <xs:schema id="messages" elementFormDefault="qualified" version="Exchange2010"
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <xs:include schemaLocation="MS-OXWSUSRCFG-messages.xsd"/>
    </xs:schema>
    <xs:schema id="types" elementFormDefault="qualified" version="Exchange2010"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
    </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"
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
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/CreateUserConfigurat
ion"/>
        <wsdl:input>
            <soap:header message="tns:CreateUserConfigurationSoapIn"
part="Impersonation" use="literal"/>
            <soap:header message="tns:CreateUserConfigurationSoapIn"
part="MailboxCulture" use="literal"/>
            <soap:header message="tns:CreateUserConfigurationSoapIn"
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"
part="ServerVersion" use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="DeleteUserConfiguration">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DeleteUserConfigurat
ion"/>
        <wsdl:input>
            <soap:header message="tns>DeleteUserConfigurationSoapIn"
part="Impersonation" use="literal"/>
            <soap:header message="tns>DeleteUserConfigurationSoapIn"
part="MailboxCulture" use="literal"/>
            <soap:header message="tns>DeleteUserConfigurationSoapIn"
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"
part="ServerVersion" use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetUserConfiguration">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetUserConfigurati
on"/>
        <wsdl:input>
            <soap:header message="tns:GetUserConfigurationSoapIn"
part="Impersonation" use="literal"/>

```

```

                <soap:header message="tns:GetUserConfigurationSoapIn"
part="MailboxCulture" use="literal"/>
                <soap:header message="tns:GetUserConfigurationSoapIn"
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"
part="ServerVersion" use="literal"/>
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="UpdateUserConfiguration">
            <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/UpdateUserConfigurat
ion"/>
            <wsdl:input>
                <soap:header message="tns:UpdateUserConfigurationSoapIn"
part="Impersonation" use="literal"/>
                <soap:header message="tns:UpdateUserConfigurationSoapIn"
part="MailboxCulture" use="literal"/>
                <soap:header message="tns:UpdateUserConfigurationSoapIn"
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"
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"
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"
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"
        element="tns:GetUserConfigurationResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <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>
    <wsdl:message name="UpdateUserConfigurationSoapOut">
      <wsdl:part name="UpdateUserConfigurationResult"
        element="tns:UpdateUserConfigurationResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
  </wsdl:definitions>

```

6.2 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 6.2.

```

<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
  xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
  xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
  elementFormDefault="qualified" version="Exchange2010" id="messages">
  <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
    schemaLocation="MS-OXWSUSRCFG-types.xsd"/>
  <xs:complexType name="CreateUserConfigurationType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="UserConfiguration"
            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"
type="m:CreateUserConfigurationResponseType"/>
    <xs:complexType name="DeleteUserConfigurationType">
        <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
                <xs:sequence>
                    <xs:element name="UserConfigurationName"
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"
type="m:DeleteUserConfigurationResponseType"/>
    <xs:complexType name="GetUserConfigurationType">
        <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
                <xs:sequence>
                    <xs:element name="UserConfigurationName"
type="t:UserConfigurationNameType"/>
                    <xs:element name="UserConfigurationProperties"
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"
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"
type="m:GetUserConfigurationResponseType"/>
    <xs:complexType name="UpdateUserConfigurationType">
        <xs:complexContent>
            <xs:extension base="m:BaseRequestType">
                <xs:sequence>
                    <xs:element name="UserConfiguration"
type="t:UserConfigurationType"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>

```

```

<xs:element name="UpdateUserConfiguration" type="m:UpdateUserConfigurationType"/>
<xs:complexType name="UpdateUserConfigurationResponseType">
  <xs:complexContent>
    <xs:extension base="m:BaseResponseMessageType"/>
  </xs:complexContent>
</xs:complexType>
<xs:element name="UpdateUserConfigurationResponse"
type="m:UpdateUserConfigurationResponseType"/>
</xs:schema>

```

6.3 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 Protocol
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"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified" version="Exchange2010" id="types">
  <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
  <xs:include schemaLocation="MS-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:sequence>
    </xs:complexType>
    <xs:complexType name="UserConfigurationDictionaryEntryType">
        <xs:sequence>
            <xs:element name="DictionaryKey"
type="t:UserConfigurationDictionaryObjectType"/>
            <xs:element name="DictionaryValue"
type="t:UserConfigurationDictionaryObjectType" nillable="true"/>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="UserConfigurationDictionaryType">
        <xs:sequence>
            <xs:element name="DictionaryEntry"
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"
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>

```

7 Appendix B: Product Behavior

The information in this specification is applicable to the following product versions. References to product versions include released service packs.

- Microsoft® Exchange Server 2010

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

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

8 Change Tracking

This section identifies changes made to [MS-OXWSUSRCFG] protocol documentation between February 2010 and May 2010 releases. Changes are classed as major, minor, or editorial.

Major changes affect protocol interoperability or implementation. Examples of major changes are:

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

Minor changes do not affect protocol interoperability or implementation. Examples are updates to fix technical accuracy or ambiguity at the sentence, paragraph, or table level.

Editorial changes apply to grammatical, formatting, and style issues.

No changes means that the document is identical to its last release.

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

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

- Content removed for template compliance.
- Obsolete document removed.

Editorial changes always have the revision type "Editorially updated."

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

Protocol syntax refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.

Protocol revision refers to changes made to a protocol that affect the bits that are sent over the wire.

Changes are listed in the following table. If you need further information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Revision Type
1.3 Overview	Updated the section title.	N	Content updated for template compliance.

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