[MS-OXWSBTRF]:
Bulk Transfer Web Service Protocol

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Revision Summary

Date	Revision History	Revision Class	Comments
05/05/2010	0.1.0	Major	Initial Release.
08/04/2010	0.2	Minor	Clarified the meaning of the technical content.
11/03/2010	0.2	No change	No changes to the meaning, language, or formatting of the technical content.
03/18/2011	1.0	Major	Significantly changed the technical content.
08/05/2011	2.0	Major	Significantly changed the technical content.
10/07/2011	2.0	No change	No changes to the meaning, language, or formatting of the technical content.
01/20/2012	3.0	Major	Significantly changed the technical content.
04/27/2012	3.0	No change	No changes to the meaning, language, or formatting of the technical content.
07/16/2012	4.0	Major	Significantly changed the technical content.
10/08/2012	4.1	Minor	Clarified the meaning of the technical content.
02/11/2013	4.1	No change	No changes to the meaning, language, or formatting of the technical content.
07/26/2013	4.1	No change	No changes to the meaning, language, or formatting of the technical content.
11/18/2013	4.1	No change	No changes to the meaning, language, or formatting of the technical content.

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1 Introduction

The Bulk Transfer Web Service Protocol enables a protocol client to export and upload streamed opaque item data between the server and the client.

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 fault
SOAP header
SOAP message
XML
XML namespace

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

endpoint
mailbox
web server
Web Services Description Language (WSDL)
WSDL message
WSDL port type
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. Please check the archive site, http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624, as an additional source.

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

[MS-OXWSCORE] Microsoft Corporation, "Core Items 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

[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 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., Eds., and Mendelsohn, N., Ed., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/

[XMLSCHEMA2] Biron, P.V., 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, "Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol".

1.3 Overview

Bulk data transfer enables clients and servers to move large amounts of information. This protocol enables clients to upload large streams of data to a **mailbox** server and download large streams of data from a mailbox server.

The upload and export data stream is an opaque format that only needs to be understood by a server implementation. The client only serves as a repository for the opaque data stream so that it can be uploaded to the server at a later time.

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

The Bulk Transfer Web Service Protocol uses **SOAP** over **HTTP**, as described in [RFC2616], and SOAP over **HTTPS**, as described in [RFC2818], as shown in the following layering diagram.

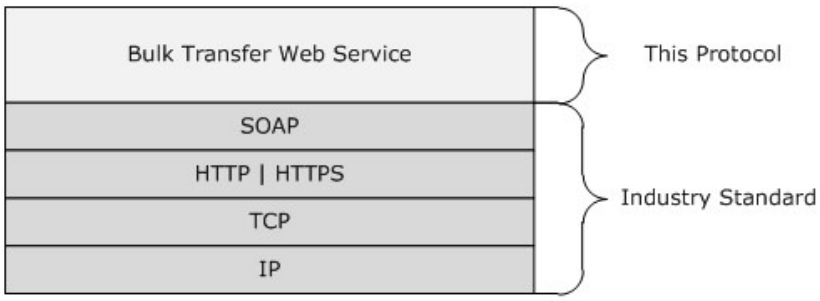

Figure 1: This protocol in relation to other protocols

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 is applicable to environments that stream items into and out of a mailbox by using Web services. This protocol is intended for scenarios in which a mailbox server is backed up and restored, where accessing item content is not a requirement. This Web service protocol is applicable to SOAP-based clients [SOAP1.1].

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports**: This protocol uses SOAP 1.1, as specified in section 2.1.
- **Protocol Versions**: This protocol specifies only one **WSDL port type** version. The **WSDL** version of the request is identified by using the **t:RequestServerVersion** element, as described in [MS-OXWSCDATA] section 2.2.3.9, and the version of the server responding to the request is

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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

None.

1.9 Standards Assignments

None.

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2 Messages

In the following sections, the schema definition might differ from the processing rules imposed by the protocol. The WSDL in this specification provides a base description of the protocol. The schema in this specification provides a base description of the message syntax. The text that specifies the WSDL and schema might specify restrictions that reflect actual protocol behavior. For example, the schema definition might allow for an element to be **empty**, **null**, or **not present** but the behavior of the protocol as specified restricts the same elements to being **non-empty**, **not null**, or **present**.

2.1 Transport

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

This protocol relies on the **Web server** that hosts the application to perform authentication. The protocol MUST support SOAP over HTTP, as specified in [RFC2616]. The protocol SHOULD use secure communications via HTTPS, as defined in [RFC2818].

2.2 Common Message Syntax

This section contains common definitions 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]
tns	http://schemas.microsoft.com/exchange/services/2006/messages	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
t	http://schemas.microsoft.com/exchange/services/2006/types	
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1]
m	http://schemas.microsoft.com/exchange/services/2006/messages	
none	http://schemas.microsoft.com/exchange/services/2006/messages	
none	http://schemas.microsoft.com/exchange/services/2006/types	

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.

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2.2.4 Complex Types

This specification does not define any common XML schema complex type definitions.

2.2.5 Simple Types

This specification does not define any common XML schema simple types definitions.

2.2.6 Attributes

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

2.2.7 Groups

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

2.2.8 Attribute Groups

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

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3 Protocol Details

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

3.1 ExchangeServicePortType Server Details

The Bulk Transfer Web Service Protocol defines a single WSDL port type with two operations.The operations enable client implementations to import and export items to and from a mailbox.

3.1.1 Abstract Data Model

None.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

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

Operation	Description
ExportItems (section 3.1.4.1)	Specifies the WSDL messages for exporting items out of a mailbox.
UploadItems (section 3.1.4.2)	Specifies the WSDL messages for uploading items into a mailbox.

The data stream for the **UploadItems** operation is provided by previously exported item data streams provided by the **ExportItems** operation.

3.1.4.1 ExportItems

The **ExportItems** operation specifies the WSDL messages for exporting items out of a mailbox.

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

```
<wsdl:operation name="ExportItems">
   <wsdl:input message="tns:ExportItemsSoapIn"/>
   <wsdl:output message="tns:ExportItemsSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the operation.<1>

```
<wsdl:operation name="ExportItems">
   <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/ExportItems" />
   <wsdl:input>
```


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```
        <soap:header message="tns:ExportItemsSoapIn" part="Impersonation" use="literal"/>
        <soap:header message="tns:ExportItemsSoapIn" part="MailboxCulture" use="literal"/>
        <soap:header message="tns:ExportItemsSoapIn" part="RequestVersion" use="literal"/>
        <soap:header message="tns:ExportItemsSoapIn" part="ManagementRole" use="literal"/>
        <soap:body parts="request" use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body parts="ExportItemsResult" use="literal" />
        <soap:header message="tns:ExportItemsSoapOut" part="ServerVersion" use="literal"/>
    </wsdl:output>
</wsdl:operation>
```

3.1.4.1.1 Messages

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

Message	Description
ExportItemsSoapIn (section 3.1.4.1.1.1)	Specifies the **SOAP message** that represents a request to export items out of a mailbox.
ExportItemsSoapOut (section 3.1.4.1.1.2)	Specifies the SOAP message that represents a response that contains exported items.

3.1.4.1.1.1 tns:ExportItemsSoapIn Message

The **ExportItemsSoapIn** WSDL message specifies the SOAP message that represents a request to export items out of a mailbox.

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

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

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

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

Part name	Element/type	Description
request	**tns:ExportItems** (section 3.1.4.1.2.1)	Specifies the **SOAP body** of the request to export items. 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 server.

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Part name	Element/type	Description
		The cultures are defined by [RFC3066].
RequestVersion	**t:RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.9)	Specifies a SOAP header that identifies the schema version for the **ExportItems** operation request.
ManagementRole	**t:ManagementRole** ([MS-OXWSCDATA] section 2.2.3.7)	Specifies the SOAP header that identifies the caller's role. <2>

3.1.4.1.1.2 tns:ExportItemsSoapOut Message

The **ExportItemsSoapOut** WSDL message specifies the SOAP message that represents a response that contains exported items.

```
<wsdl:message name="ExportItemsSoapOut">
  <wsdl:part name="ExportItemsResult" element="tns:ExportItemsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
ExportItemsResult	**tns:ExportItemsResponse** (section 3.1.4.1.2.2)	Specifies the SOAP body of the response.
ServerVersion	ServerVersion ([MS-OXWSCDATA] section 2.2.3.10)	Specifies the SOAP header that identifies the server version for the response.

If the request is successful, the **ExportItems** operation returns an **ExportItemsResponse** element with the **ResponseClass** attribute of the **ExportItemsResponseMessage** element set to "Success". The **ResponseCode** element of the **ExportItemsResponseMessage** element is set to "NoError".

If the request is unsuccessful, the **ExportItems** operation returns an **ExportItemsResponse** element with the **ResponseClass** attribute of the **ExportItemsResponseMessage** element set to "Error". The **ResponseCode** element of the **ExportItemsResponseMessage** element is set to a value of the **ResponseCodeType** simple type, as specified in [MS-OXWSCDATA] section 2.2.5.23.

3.1.4.1.2 Elements

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

Element	Description
ExportItems (section 3.1.4.1.2.1)	Specifies a request to export items from a mailbox.
ExportItemsResponse (section 3.1.4.1.2.2)	Specifies a response that contains exported items.

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3.1.4.1.2.1 ExportItems Element

The **ExportItems** element specifies a request to export items. This element MUST be present.

```
<xs:element name="ExportItems"
  type="m:ExportItemsType"
 />
```

3.1.4.1.2.2 ExportItemsResponse Element

The **ExportItemsResponse** element specifies a response to a request to export items from a mailbox. This element MUST be present.

```
<xs:element name="ExportItemsResponse"
  type="m:ExportItemsResponseType"
 />
```

3.1.4.1.3 Complex Types

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

Complex type	Description
ExportItemsResponseMessageType (section 3.1.4.1.3.1)	Specifies a single exported item.
ExportItemsResponseType (section 3.1.4.1.3.2)	Specifies a response to export items from a mailbox.
ExportItemsType (section 3.1.4.1.3.3)	Specifies a request to export items out of a mailbox.
NonEmptyArrayOfItemIdsType (section 3.1.4.1.3.4)	Specifies the array of items to export from a mailbox.

3.1.4.1.3.1 m:ExportItemsResponseMessageType Complex Type

The **ExportItemsResponseMessageType** complex type specifies a single exported item. The **ExportItemsResponseMessageType** complex type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.57.

```
<xs:complexType name="ExportItemsResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ResponseMessageType"
    >
      <xs:sequence>
        <xs:element name="ItemId"
          type="t:ItemIdType"
          minOccurs="0"
          maxOccurs="1"
         />
        <xs:element name="Data"
          type="xs:base64Binary"
```


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```
            minOccurs="0"
            maxOccurs="1"
           />
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
```

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

Element	Type	Description
ItemId	**t:ItemIdType** ([MS-OXWSCORE] section 2.2.4.17)	Specifies the item identifier of a single exported item. This element MUST be present if the export operation is successful.
Data	**xs:base64Binary** ([XMLSCHEMA2])	Specifies the data of a single exported item. This element MUST be present if the export operation is successful.

3.1.4.1.3.2 ExportItemsResponseType Complex Type

The **ExportItemsResponseType** complex type specifies a response to export items from a mailbox. The **ExportItemsResponseType** complex type extends the **BaseResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.16.

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

3.1.4.1.3.3 ExportItemsType Complex Type

The **ExportItemsType** complex type specifies a request to export items out of a mailbox. The **ExportItemsType** complex type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.15.

```
<xs:complexType name="ExportItemsType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="ItemIds"
          type="t:NonEmptyArrayOfItemIdsType"
          maxOccurs="1"
          minOccurs="1"
         />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
```


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

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

Element	Type	Description
ItemIds	**t:NonEmptyArrayOfItemIdsType** (section 3.1.4.1.3.4)	Specifies the item identifier array of the items to export. This element MUST be present.

3.1.4.1.3.4 t:NonEmptyArrayOfItemIdsType Complex Type

The **NonEmptyArrayOfItemIdsType** complex type specifies the array of items to export from a mailbox.

```
<xs:complexType name="NonEmptyArrayOfItemIdsType">
  <xs:sequence>
    <xs:element name="ItemId"
      type="t:ItemIdType"
      maxOccurs="unbounded"
      minOccurs="1"
     />
  </xs:sequence>
</xs:complexType>
```

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

Element	Type	Description
ItemId	**t:ItemIdType** ([MS-OXWSCORE] section 2.2.4.17)	Specifies the item identifier of an item to export from a mailbox. At least one **ItemId** element MUST be present. If the **ChangeKey** attribute of the **ItemIdType** complex type is present, its value MUST be either valid or NULL.

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 UploadItems

The **UploadItems** operation uploads items to a mailbox.

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

```
<wsdl:operation name="UploadItems">
   <wsdl:input message="tns:UploadItemsSoapIn"/>
   <wsdl:output message="tns:UploadItemsSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the operation.

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

3.1.4.2.1 Messages

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

Message	Description
UploadItemsSoapIn (section 3.1.4.2.1.1)	Specifies the SOAP message that represents a request to upload items into a mailbox.
UploadItemsSoapOut (section 3.1.4.2.1.2)	Specifies the SOAP message that represents a response that contains the results of an attempt to upload items into a mailbox.

3.1.4.2.1.1 tns:UploadItemsSoapIn Message

The **UploadItemsSoapIn** WSDL message specifies the SOAP message that represents a request to upload items into a mailbox.

The following is the WSDL message specification of the **UploadItemsSoapIn** message.

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

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

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

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Part name	Element/type	Description
request	**UploadItems** (section 3.1.4.2.2.1)	Specifies the SOAP body of the request.
Impersonation	**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	**MailboxCulture** ([MS-OXWSCDATA] section 2.2.3.6)	Specifies the SOAP header that identifies the culture to use for accessing the server. The cultures are defined by [RFC3066]. This part is optional.
RequestVersion	**RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.9)	Specifies a SOAP header that identifies the schema version for the **UploadItems** operation request.

3.1.4.2.1.2 tns:UploadItemsSoapOut Message

The **UploadItemsSoapOut** WSDL message specifies the SOAP message that represents a response that contains the results of an attempt to upload items into a mailbox.

```
<wsdl:message name="UploadItemsSoapOut">
  <wsdl:part name="UploadItemsResult" element="tns:UploadItemsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

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

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

Part name	Element/type	Description
UploadItemsResult	UploadItemsResponse (section 3.1.4.2.2.2)	Specifies the SOAP body of the response to an **UploadItems** operation request.
ServerVersion	ServerVersion ([MS-OXWSCDATA] section 2.2.3.10)	Specifies the SOAP header that identifies the server version for the response.

If the request is successful, the **UploadItems** operation returns an **UploadItemsResponse** element with the **ResponseClass** attribute of the **UploadItemsResponseMessage** element set to "Success". The **ResponseCode** element of the **UploadItemsResponseMessage** element is set to "NoError".

If the request is unsuccessful, the **UploadItems** operation returns an **UploadItemsResponse** element with the **ResponseClass** attribute of the **UploadItemsResponseMessage** element set to "Error". The **ResponseCode** element of the **UploadItemsResponseMessage** element is set to a value of the **ResponseCodeType** simple type, as specified in [MS-OXWSCDATA] section 2.2.5.23.

3.1.4.2.2 Elements

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

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Element	Description
UploadItems (section 3.1.4.2.2.1)	Specifies the request to upload items into a mailbox. This element MUST be present.
UploadItemsResponse (section 3.1.4.2.2.2)	Specifies the response to an attempt to upload items. This element MUST be present.

3.1.4.2.2.1 UploadItems Element

The **UploadItems** element specifies the request to upload items into a mailbox. This element MUST be present.

```
<xs:element name="UploadItems"
  type="m:UploadItemsType"
 />
```

3.1.4.2.2.2 UploadItemsResponse Element

The **UploadItemsResponse** element specifies the response to an attempt to upload items. This element MUST be present.

```
<xs:element name="UploadItemsResponse"
  type="m:UploadItemsResponseType"
 />
```

3.1.4.2.3 Complex Types

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

Complex type	Description
NonEmptyArrayOfUploadItemsType (section 3.1.4.2.3.1)	Specifies the array of items to upload into a mailbox.
UploadItemsResponseMessageType (section 3.1.4.2.3.2)	Specifies the item identifier of an item that was uploaded into a mailbox.
UploadItemsResponseType (section 3.1.4.2.3.3)	Specifies the response messages for items for which an attempt was made to upload into a mailbox.
UploadItemsType (section 3.1.4.2.3.4)	Specifies the contents of a request to upload items into a mailbox.
UploadItemType (section 3.1.4.2.3.5)	Specifies the contents of single item to upload into a mailbox.

3.1.4.2.3.1 t:NonEmptyArrayOfUploadItemsType Complex Type

The **NonEmptyArrayOfUploadItemsType** complex type specifies the array of items to upload into a mailbox.

```
<xs:complexType name="NonEmptyArrayOfUploadItemsType">
  <xs:sequence>
```


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```
      <xs:element name="Item"
        type="t:UploadItemType"
        maxOccurs="unbounded"
        minOccurs="1"
       />
    </xs:sequence>
  </xs:complexType>
```

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

Element	Type	Description
Item	**t:UploadItemType** (section 3.1.4.2.3.5)	Specifies the array of items to upload in to a mailbox. At least one **Item** element MUST be present.

3.1.4.2.3.2 m:UploadItemsResponseMessageType Complex Type

The **UploadItemsResponseMessageType** complex type specifies the item identifier of an item that was uploaded into a mailbox. The **UploadItemsResponseMessageType** complex type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.57.

```
<xs:complexType name="UploadItemsResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ResponseMessageType"
    >
      <xs:sequence>
        <xs:element name="ItemId"
          type="t:ItemIdType"
          minOccurs="0"
         />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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

Element	Type	Description
ItemId	**t:ItemIdType** ([MS-OXWSCORE] section 2.2.4.17)	Specifies the item identifier of an item that was uploaded into a mailbox. Only a single instance of this element can be present.

3.1.4.2.3.3 m:UploadItemsResponseType Complex Type

The **UploadItemsResponseType** complex type specifies the response messages for which an attempt was made to update into a mailbox. The **UploadItemsResponseType** complex type extends the **BaseResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.16.

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

3.1.4.2.3.4 m:UploadItemsType Complex Type

The **UploadItemsType** complex type specifies the contents of a request to upload items in to a mailbox. The **UploadItemsType** complex type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.15.

```
<xs:complexType name="UploadItemsType">
  <xs:complexContent>
    <xs:extension
      base="m:BaseRequestType"
    >
      <xs:sequence>
        <xs:element name="Items"
          type="t:NonEmptyArrayOfUploadItemsType"
         />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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

Element	Type	Description
Items	**t:NonEmptyArrayOfUploadItemsType** (section 3.1.4.2.3.1)	Specifies the collection of items to upload into a mailbox. This element MUST be present.

3.1.4.2.3.5 m:UploadItemType Complex Type

The **UploadItemType** complex type specifies the contents of a single item to upload in to a mailbox.

```
<xs:complexType name="UploadItemType">
  <xs:sequence>
    <xs:element name="ParentFolderId"
      type="t:FolderIdType"
      maxOccurs="1"
      minOccurs="1"
     />
    <xs:element name="ItemId"
      type="t:ItemIdType"
      maxOccurs="1"
      minOccurs="0"
     />
    <xs:element name="Data"
      type="xs:base64Binary"
```


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```
      maxOccurs="1"
      minOccurs="1"
     />
  </xs:sequence>
  <xs:attribute name="CreateAction"
    type="t:CreateActionType"
    use="required"
   />
  <xs:attribute name="IsAssociated"
    type="xs:boolean"
   />
</xs:complexType>
```

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

Element	Type	Description
ParentFolderId	**t:FolderIdType** ([MS-OXWSCDATA] section 2.2.4.31)	Specifies the target folder in which to place the upload item. This element MUST be present.
ItemId	**t:ItemIdType** ([MS-OXWSCORE] section 2.2.4.17)	Specifies the item identifier of the upload item.
Data	**xs:base64Binary** ([XMLSCHEMA2])	Specifies the data of the upload item. This element MUST be present.

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

Name	Type	Description
CreateAction	**t:CreateActionType** (section 3.1.4.2.4.1)	Specifies the action for uploading items into a mailbox. This attribute MUST be present.
IsAssociated	**xs:boolean** ([XMLSCHEMA2])	This attribute is optional. If it is present, it indicates that the item is a folder associated item. If this attribute is not present, the server MUST assume that the item is not a folder associated item.

3.1.4.2.4 Simple Types

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

Simple type	Description
CreateActionType (section 3.1.4.2.4.1)	Specifies the action for uploading items into a mailbox.

3.1.4.2.4.1 CreateActionType Simple Type

The **CreateActionType** simple type specifies the action for uploading items into a mailbox.

```
<xs:simpleType>
  <xs:restriction
    base="xs:string"
  >
```


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```
      <xs:enumeration
        value="CreateNew"
       />
      <xs:enumeration
        value="Update"
       />
      <xs:enumeration
        value="UpdateOrCreate"
       />
    </xs:restriction>
  </xs:simpleType>
```

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

Value	Description
CreateNew	Specifies that a new copy of the original item is uploaded to the mailbox. The <ItemId> element in the **UploadItemType** complex type, as specified in section 3.1.4.2.3.5, MUST be ignored by the server. The <ItemId> element that is returned in the **UploadItemsResponseMessageType** complex type, as specified in section 3.1.4.2.3.2, MUST contain the new item identifier.
Update	Specifies that the upload will update an item that is already present in the mailbox. The <ItemId> element in the **UploadItemType** complex type MUST be specified; otherwise, a **SOAP fault** MUST be returned. If the target item is not in the original folder specified by the <ParentFolderId> element in the **UploadItemType** complex type, an **ErrorItemNotFound** error code MUST be returned in the **UploadItemsResponseMessageType** complex type.
UpdateOrCreate	Specifies an attempt to first update the item. If the criteria for a successful update are met, the target item is updated. The <ItemId> element in the **UploadItemType** complex type MUST be specified; otherwise, a SOAP fault MUST be returned. If the target item is not in the original folder specified by the <ParentFolderId> element in the **UploadItemType** complex type, a new copy of the original item is uploaded to the mailbox associated with the folder specified by the <ParentFolderId> element. The <ItemId> element that is returned in the **UploadItemsResponseMessageType** complex type, as specified in section 3.1.4.2.3.2, MUST contain the new item identifier.

3.1.4.2.5 Attributes

None.

3.1.4.2.6 Groups

None.

3.1.4.2.7 Attribute Groups

None.

3.1.5 Timer Events

None.

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3.1.6 Other Local Events

None.

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4 Protocol Examples

This section provides a simplified example of a request-response sequence for the **ExportItems** operation, as specified in section 3.1.4.1.

The following example shows an **ExportItems** request to export three items.

```
<?xml version="1.0" encoding="utf-8" ?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
               xmlns:xsd="http://www.w3.org/2001/XMLSchema"
               xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
               xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
               xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2013 " />
  </soap:Header>
  <soap:Body>
    <m:ExportItems>
      <m:ItemIds>
        <t:ItemId Id="AAMkAGYzZjZmRiUsidkC+NAAAAY89GAAA="/>
        <t:ItemId Id="AAMkAGYzZjZmRiUsidkC+NAAAAY89FAAA="/>
        <t:ItemId Id="AAMkAGYzZjZmRiUsidkC+NAAAAY87NAAA="/>
      </m:ItemIds>
    </m:ExportItems>
  </soap:Body>
</soap:Envelope>
```

The following example shows an **ExportItems** response to the request to export three items. The item identifier and data have been shortened to preserve readability.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <t:ServerVersionInfo MajorVersion="14"
                         MinorVersion="1"
                         MajorBuildNumber="139"
                         MinorBuildNumber="0"
                         Version="Exchange2013"
                         xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                         xmlns:xsd="http://www.w3.org/2001/XMLSchema"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <m:ExportItemsResponse
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"

xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
      <m:ResponseMessages>
        <m:ExportItemsResponseMessage ResponseClass="Success">
          <m:ResponseCode>NoError</m:ResponseCode>
          <m:ItemId Id="AAMkAGYzZjZmRiUsidkC+NAAAAY89GAAA=" ChangeKey="FwAAAA=="/>
          <m:Data>AQAAAAgAAAAAAAAALgBlAHgAdABlAHMAdAAuAG0AaQBjAHIAbwBzAG8AZgB0AC4A
          YwBvAG0AAABTAE0AVABQAAAAVQBzAGUAcgAyAEAAYQB1AGoAaQBuAGcALQBkAG8AbQAuAGUA
          eAB0AGUAcwB0AC4AbQBpAGMAcgBvAHMAbwBmAHQALgBjAG8AbQAAALCE/jlMAAAAVQBzAGUA
          cgAyAEAAYQB1AGoAaQBuAGcALQBkAG8AbQAuAGUAeAB0AGUAcwB0AC4AbQBpAGMAcgBvAHMA
```


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```
          bwBmAHQALgBjAG8AbQAAAAMAADkAAAAAAwD+DwYAAAADAARAAwACQAMADkA=</m:Data>
        </m:ExportItemsResponseMessage>
        <m:ExportItemsResponseMessage ResponseClass="Success">
          <m:ResponseCode>NoError</m:ResponseCode>
          <m:ItemId Id="AAMkAGYzZjZmRiUsidkC+NAAAAY89FAAA=" ChangeKey="FwAAAA=="/>
          <m:Data>AQAAAAgAAAAAAAAAAQAAAAMAAAAYAAAAAQAAAAcDAgAAAAAAwAAAAAAAAEYAJACA
          QAAyAAAh9SpR08oBAwAEQAMAFkANABMOAwAAQAMAIQ4AAAAAsIQSN0oAAAAyAGEAYgAxADYA
          MQA2ADYALQBhAGUANQBkAC0ANAAyAGUAZgAtAGEANQA1ADkALQBjADgAOQAwADgANwBkADIA
          MwBkADgANAAAAAMACzf/////AwAgDmQEAAADAPcPAAAAAEAABzBPMXstUdPKAUAACDBPMXst
          UdPKAQMABTcFAAAAsIQONx4AAABtAGUAcwBzAGEAZwBlAC8AcgBmAGMAOAAyADIAAACwhAEw
          IgAAAE0AbwBzAHQAIABmAGEAcwBjAGkAbgBhAHQAaQBuAGcAAAACAfkPBAAAAAAAAADAAFA
          FABKZ3QrAAAAZF2mAwAXAAEAAACwhBoAEgAAAEkAUABNAC4ATgBvAHQAZQAAAAMANgAAAAA
          sIQ3ACIAAABNAG8AcwB0ACAAZgBhAHMAYwBpAG4AYQB0AGkAbgBnAAAAQAA5AACq+za80coB
          AgE7AGUAAABFWDovTz1GSVJTVCBPUkdBTklaQVRJT04vT1U9RVhDSEFOR0UgQURNSU5JU1RS
          QVRJVkUgR1JPVVAgKEZZRElCT0hGMjNTUERMVCkvQ049UkVDSVBJRU5UUy9DTj1VU0VST05F
          ALCEPQACAAAAAAACAUEAfgAAAAAAAADcp0DIwEIQGrS5CAArL+GCAQAAAAAAAAAvTz1GSVJT
          VCBPUkdBTklaQVRJT04vT1U9RVhDSEFOR0UgQURNSU5JU1RSQVRJVkUgR1JPVVAgKEZZRElC
          T0hGMjNTUERMVCkvQ049UkVDSVBJRU5UUy9DTj1VU0VST05FALCEQgAQAAAAVQB</m:Data>
        </m:ExportItemsResponseMessage>
        <m:ExportItemsResponseMessage ResponseClass="Success">
          <m:ResponseCode>NoError</m:ResponseCode>
          <m:ItemId Id="AAMkAGYzZjZmRiUsidkC+NAAAAY87NAAA=" ChangeKey="CQAAAA=="/>
          <m:Data>AQAAAAgAAAAAAAAAAQAAAAMAAAAYAAAAAQAAAAcDAgAAAAAAwAAAAAAAAEYAJACA
          BAAAAAYAAAABDouAAAACAAAAEiAAAOSECEBbAAAAL089RklSU1QgT1JHQU5JWkFUSU9OL09V
          PUVYQ0hBTkdFIEFETUlOSVNUUkFUSVZFIEdST1VQIChGWURJQk9IRjIzU1BETFQpL0NOPVJF
          Q0lQSUVOVFMvQ049AAMAFwABAAAAsIQaABIAAABJAFAATQAuAE4AbwB0AGUAAAALACMAAAAL
          ACkAAAADADYAAAAALCENwAyAAAASQBuAHQAZQByAGUAcwB0AGkAbgBnACAALQAgAGYAcgBv
          AG0AIABFAFcAUwBNAEEAAABAADkAAHZeFxfRygECATsAZQAAAEVYOi9PPUZJUlNUIE9SR0FO
          SVpBVElPTi9PVT1FWENIQU5HRSBBRE1JTklTVFJBVElWRSBHUk9VUCAoRllESUJPSEYyM1NQ
          RExUKS9DTj1SRUNJUElFTlRTL0NOPVVTRVJPTkUAsIQ9AAIAAAAAAAAIBPwB+AAAAAAAANyn
          QMjAQhAatLkIACsv4YIBAAAAAAAAAC9PPUZJUlNUIE9SR0FOSVpBVElPTi9PVT1FWENIQU5H
          </m:Data>
        </m:ExportItemsResponseMessage>
      </m:ResponseMessages>
    </m:ExportItemsResponse>
  </s:Body>
</s:Envelope>
```


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5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

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6 Appendix A: Full WSDL

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

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

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-OXWSBTRF-types.xsd or MS-OXWSBTRF-messages.xsd schemas have to be placed in the common folder along with the files listed in the table.

This section contains the contents of the MS-OXWSBTRF.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: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"
      xmlns:xs="http://www.w3.org/2001/XMLSchema"
      targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
      <xs:include schemaLocation="MS-OXWSBTRF-messages.xsd"/>
    </xs:schema>
  </wsdl:types>
  <wsdl:message name="UploadItemsSoapIn">
    <wsdl:part name="request" element="tns:UploadItems"/>
    <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="UploadItemsSoapOut">
    <wsdl:part name="UploadItemsResult" element="tns:UploadItemsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
  </wsdl:message>
  <wsdl:message name="ExportItemsSoapIn">
    <wsdl:part name="request" element="tns:ExportItems"/>
    <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
     <wsdl:part name="ManagementRole" element="t:ManagementRole"/>
  </wsdl:message>
  <wsdl:message name="ExportItemsSoapOut">
    <wsdl:part name="ExportItemsResult" element="tns:ExportItemsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
```


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```
  </wsdl:message>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="UploadItems">
      <wsdl:input message="tns:UploadItemsSoapIn"/>
      <wsdl:output message="tns:UploadItemsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="ExportItems">
      <wsdl:input message="tns:ExportItemsSoapIn"/>
      <wsdl:output message="tns:ExportItemsSoapOut"/>
    </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="UploadItems">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/UploadItems"/>
      <wsdl:input>
         <soap:header message="tns:UploadItemsSoapIn" part="Impersonation" use="literal"/>
         <soap:header message="tns:UploadItemsSoapIn" part="MailboxCulture" use="literal"/>
         <soap:header message="tns:UploadItemsSoapIn" part="RequestVersion" use="literal"/>
         <soap:body parts="request" use="literal"/>
       </wsdl:input>
       <wsdl:output>
          <soap:body parts="UploadItemsResult" use="literal"/>
          <soap:header message="tns:UploadItemsSoapOut" part="ServerVersion" use="literal"/>
       </wsdl:output>
     </wsdl:operation>
     <wsdl:operation name="ExportItems">
       <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/ExportItems"/>
       <wsdl:input>
         <soap:header message="tns:ExportItemsSoapIn" part="Impersonation" use="literal"/>
         <soap:header message="tns:ExportItemsSoapIn" part="MailboxCulture" use="literal"/>
         <soap:header message="tns:ExportItemsSoapIn" part="RequestVersion" use="literal"/>
         <soap:header message="tns:ExportItemsSoapIn" part="ManagementRole" use="literal"/>
         <soap:body parts="request" use="literal"/>
       </wsdl:input>
       <wsdl:output>
         <soap:body parts="ExportItemsResult" use="literal"/>
         <soap:header message="tns:ExportItemsSoapOut" part="ServerVersion" use="literal"/>
       </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
</wsdl:definitions>
```


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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:	7.1
Types schema	t:	7.2

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-OXWSBTRF-types.xsd or MS-OXWSBTRF-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-OXWSBTRF-messages.xsd file and information about additional files that this schema file requires to operate correctly.

The MS-OXWSBTRF-messages.xsd includes the files 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-OXWSBTRF-types.xsd	7.2
MS-OXWSCDATA-messages.xsd	[MS-OXWSCDATA] section 7.1

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema id="messages" elementFormDefault="qualified" version="Exchange2013"
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSBTRF-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
  <xs:complexType name="UploadItemsType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="Items" type="t:NonEmptyArrayOfUploadItemsType"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="UploadItems" type="m:UploadItemsType"/>
  <xs:complexType name="UploadItemsResponseMessageType">
    <xs:complexContent>
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element name="ItemId" type="t:ItemIdType" minOccurs="0"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
```


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```
  </xs:complexType>
  <xs:complexType name="UploadItemsResponseType">
    <xs:complexContent>
      <xs:extension base="m:BaseResponseMessageType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="UploadItemsResponse" type="m:UploadItemsResponseType"/>
  <xs:complexType name="ExportItemsType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="ItemIds" type="t:NonEmptyArrayOfItemIdsType" minOccurs="1"
maxOccurs="1"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="ExportItems" type="m:ExportItemsType"/>
  <xs:complexType name="ExportItemsResponseMessageType">
    <xs:complexContent>
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element name="ItemId" type="t:ItemIdType" minOccurs="0" maxOccurs="1"/>
          <xs:element name="Data" type="xs:base64Binary" minOccurs="0" maxOccurs="1"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="ExportItemsResponseType">
    <xs:complexContent>
      <xs:extension base="m:BaseResponseMessageType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="ExportItemsResponse" type="m:ExportItemsResponseType"/>
</xs:schema>
```

7.2 Types Schema

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

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

File name	Defining specification
MS-OXWSCDATA-types.xsd	[MS-OXWSCDATA] section 7.2

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema id="types"
  elementFormDefault="qualified"
  version="Exchange2013"
  xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
  targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:include schemaLocation="MS-OXWSCDATA-types.xsd"/>
```


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```
    <xs:complexType name="NonEmptyArrayOfUploadItemsType">
      <xs:sequence>
        <xs:element name="Item" type="t:UploadItemType" maxOccurs="unbounded" minOccurs="1"/>
      </xs:sequence>
    </xs:complexType>
    <xs:complexType name="UploadItemType">
      <xs:sequence>
        <xs:element name="ParentFolderId" type="t:FolderIdType" maxOccurs="1" minOccurs="1"/>
        <xs:element name="ItemId" type="t:ItemIdType" maxOccurs="1" minOccurs="0"/>
        <xs:element name="Data" type="xs:base64Binary" maxOccurs="1" minOccurs="1"/>
      </xs:sequence>
      <xs:attribute name="CreateAction" type="t:CreateActionType" use="required"/>
      <xs:attribute name="IsAssociated" type="xs:boolean" use="optional"/>
    </xs:complexType>
    <xs:simpleType name="CreateActionType">
      <xs:restriction base="xs:string">
        <xs:enumeration value="CreateNew"/>
        <xs:enumeration value="Update"/>
        <xs:enumeration value="UpdateOrCreate"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="CompleteActionType">
      <xs:restriction base="xs:string">
        <xs:enumeration value="Commit"/>
        <xs:enumeration value="Abandon"/>
      </xs:restriction>
    </xs:simpleType>
    <xs:complexType name="NonEmptyArrayOfItemIdsType">
      <xs:sequence>
        <xs:element name="ItemId" type="t:ItemIdType" maxOccurs="unbounded" minOccurs="1"/>
      </xs:sequence>
    </xs:complexType>
  </xs:schema>
```


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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 Service Pack 1 (SP1)
- Microsoft Exchange Server 2013
- Microsoft SharePoint 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.

<1> Section 3.1.4.1: Exchange 2010 does not implement the **ManagementRole** part.

<2> Section 3.1.4.1.1.1: Exchange 2010 does not implement the **ManagementRole** part.

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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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