[MS-WMS]:

Work Management Service Web Service Protocol

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Revision Summary

Date	Revision History	Revision Class	Comments
1/20/2012	0.1	New	Released new document.
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Table of Contents

1 Introduction

The Work Management Service Web Service Protocol provides a way for a protocol client to trigger task aggregation and synchronization operations for a user.

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 [RFC2119]. Sections 1.5 and 1.9 are also normative but do not contain those terms. All other sections and examples in this specification are informative.

1.1 Glossary

The following terms are specific to this document:

application server: A computer that provides infrastructure and services for applications that are hosted on a server farm.

back-end database server: A server that hosts data, configuration settings, and stored procedures that are associated with one or more applications.

personal site: A type of SharePoint site that is used by an individual user for personal productivity. The site appears to the user as My Site.

SOAP action: The HTTP request header field used to indicate the intent of the SOAP request, using a URI value. See [SOAP1.1] section 6.1.1 for more information.

SOAP body: A container for the payload data being delivered by a SOAP message to its recipient. See [SOAP1.2-1/2007] section 5.3 for more information.

SOAP fault: A container for error and status information within a SOAP message. See [SOAP1.2-1/2007] section 5.4 for more information.

task: An object (1) that represents an assignment to be completed.

Unicode: A character encoding standard developed by the Unicode Consortium that represents almost all of the written languages of the world. The **Unicode** standard [UNICODE5.0.0/2007] provides three forms (UTF-8, UTF-16, and UTF-32) and seven schemes (UTF-8, UTF-16, UTF-16 BE, UTF-16 LE, UTF-32, UTF-32 LE, and UTF-32 BE).

Uniform Resource Locator (URL): A string of characters in a standardized format that identifies a document or resource on the World Wide Web. The format is as specified in [RFC1738].

user profile: A collection of properties that pertain to a specific person or entity within a portal site.

User Profile Service: A data source that stores, provides, and applies information about users.

Web Services Description Language (WSDL): An XML format for describing network services as a set of endpoints that operate on messages that contain either document-oriented or procedure-oriented information. The operations and messages are described abstractly and are bound to a concrete network protocol and message format in order to define an endpoint. Related concrete endpoints are combined into abstract endpoints, which describe a network service. WSDL is extensible, which allows the description of endpoints and their messages regardless of the message formats or network protocols that are used.

WSDL message: An abstract, typed definition of the data that is communicated during a **WSDL operation** [WSDL]. Also, an element that describes the data being exchanged between web service providers and clients.

WSDL operation: A single action or function of a web service. The execution of a WSDL operation typically requires the exchange of messages between the service requestor and the service provider.

XML namespace: A collection of names that is used to identify elements, types, and attributes in XML documents identified in a URI reference [RFC3986]. A combination of XML namespace and local name allows XML documents to use elements, types, and attributes that have the same names but come from different sources. For more information, see [XMLNS-2ED].

XML namespace prefix: An abbreviated form of an **XML namespace**, as described in [XML].

XML schema: A description of a type of XML document that is typically expressed in terms of constraints on the structure and content of documents of that type, in addition to the basic syntax constraints that are imposed by XML itself. An XML schema provides a view of a document type at a relatively high level of abstraction.

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

1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the Errata.

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.

[MS-SPSTWS] Microsoft Corporation, "SharePoint Security Token Service 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.rfc-editor.org/rfc/rfc2616.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/

[SOAP1.2/1] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part1-20030624

[WSA1.0] World Wide Web Consortium, "Web Services Addressing 1.0 - WSDL Binding", W3C Candidate Recommendation, May 2006, http://www.w3.org/TR/2006/CR-ws-addr-wsdl-20060529/

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

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

1.2.2 Informative References

[MS-USPSWS] Microsoft Corporation, "User Profile Service Web Service Protocol".

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

[SOAP1.2/2] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 2: Adjuncts", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part2-20030624

1.3 Overview

This protocol allows protocol clients to refresh a user's **task** information through a middle-tier **application server**. The protocol client sends a request for a user to the protocol server, and the server responds with an acknowledgement of the request and refreshes the task information asynchronously.

1.4 Relationship to Other Protocols

This protocol uses the **SOAP** message protocol for formatting request and response messages, as described in [SOAP1.1], [SOAP1.2/1] and [SOAP1.2/2]. It transmits those messages by using **HTTP**, as described in [RFC2616], or **HTTPS**, as described in [RFC2818].

The following diagram shows the underlying messaging and transport stack used by the protocol:
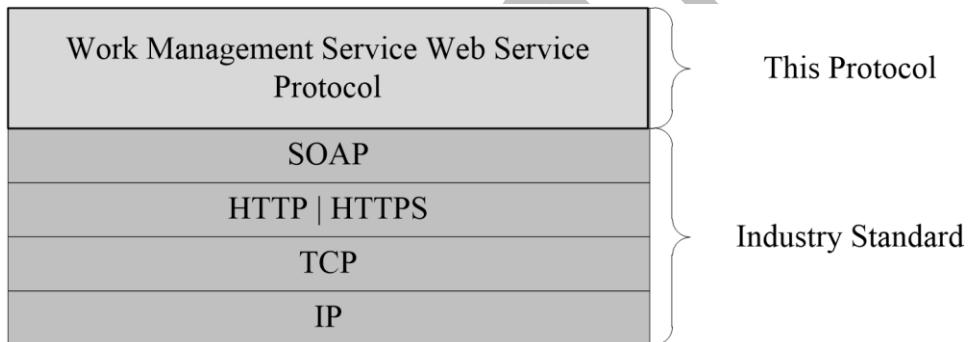
Figure 1: This protocol in relation to other protocols

This protocol also calls APIs that use the User Profile Service Web Service protocol described in [MS-USPSWS] to get the location of a **personal site** associated with a **user profile**.

1.5 Prerequisites/Preconditions

This protocol operates against a personal site that is identified by a **URL** that is known by a user profile service implementing the User Profile Service Web Service protocol, as defined by [MS-USPSWS]. The protocol client needs sufficient privileges to access the site and its data stored on the **back-end database server** corresponding to the site.

This protocol assumes that authentication has been performed by the underlying protocols.

1.6 Applicability Statement

This protocol is designed to run operations on behalf of a single user per invocation and store results for that user in a storage location associated with that user's user profile.

1.7 Versioning and Capability Negotiation

None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

Protocol servers MUST support SOAP over HTTP, HTTPS, or TCP.

All protocol messages MUST be transported by using HTTP or TCP bindings at the transport level.

Protocol messages MUST be formatted as specified in either [SOAP1.1] section 4 or [SOAP1.2/1] section 5. Protocol server faults MUST be returned by using HTTP status codes, as specified in [RFC2616] section 10, or **SOAP faults**, as specified in [SOAP1.1] section 4.4 or [SOAP1.2/1] section 5.4.

If the HTTPS transport is used, a server certificate MUST be deployed.

This protocol SHOULD transmit an additional SOAP header, the **ServiceContext** header, as specified in [MS-SPSTWS].

This protocol does not define any means for activating a protocol server or protocol client. The protocol server MUST be configured and begin listening in an implementation-specific way. In addition, the protocol client MUST be capable of handling the format and transport that is used by the server, for example, the SOAP format over an HTTP transport.

2.2 Common Message Syntax

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

2.2.1 Namespaces

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

Prefix	Namespace URI	Reference
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
tns	http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement	
tns1	http://schemas.microsoft.com/2003/10/Serialization/	
tns2	http://tempuri.org/	
tns3	http://tempuri.org/Imports	
wsaw	http://www.w3.org/2006/05/addressing/wsdl	Web Service Addressing [WSA1.0]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]

2.2.2 Messages

This specification does not define any common **WSDL message** definitions.

2.2.3 Elements

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

2.2.4 Complex Types

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

2.2.5 Simple Types

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

Simple type	Description
char	A **char** simple type that represents a **Unicode** character. This type is not used by this protocol.
duration	A time interval with its period in days, hours, minutes, and seconds. This type is not used by this protocol.
guid	A unique identifier. This type is not used by this protocol.

2.2.5.1 char

Namespace: http://schemas.microsoft.com/2003/10/Serialization/

A **char** simple type that represents a Unicode character. This type is not used by this protocol.

```
<xs:simpleType name="char" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:int"/>
</xs:simpleType>
```

2.2.5.2 duration

Namespace: http://schemas.microsoft.com/2003/10/Serialization/

A time interval with its period in days, hours, minutes, and seconds. This type is not used by this protocol.

```
<xs:simpleType name="duration" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:duration">
    <xs:pattern value="\-?P(\d*D)?(T(\d*H)?(\d*M)?(\d*(\.\d*)?S)?)?"/>
    <xs:minInclusive value="-P10675199DT2H48M5.4775808S"/>
    <xs:maxInclusive value="P10675199DT2H48M5.4775807S"/>
  </xs:restriction>
</xs:simpleType>
```

2.2.5.3 guid

Namespace: http://schemas.microsoft.com/2003/10/Serialization/

A unique identifier. This type is not used by this protocol.

```
<xs:simpleType name="guid" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:pattern value="[\da-fA-F]{8}-[\da-fA-F]{4}-[\da-fA-F]{4}-[\da-fA-F]{4}-[\da-fA-
F]{12}"/>
  </xs:restriction>
</xs:simpleType>
```

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.

2.2.9 Common Data Structures

None.

3 Protocol Details

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

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 Server Details

This protocol is based on stateless interaction between the protocol client and protocol server. The protocol client MUST be authenticated with the credentials of the user that the service will aggregate and refresh tasks for.

3.1.1 Abstract Data Model

This protocol allows a protocol client to call the application server tier to trigger a refresh of a user's task cache. When called, the protocol server will aggregate tasks from systems defined in its configuration and write them into a storage location, such as a list in the content back-end database server. The protocol server returns a result indicating whether a new aggregation job was created along with an id for the job if one exists.

This protocol also allows a protocol client to call the application server tier to trigger a synchronization of tasks between an external location such as a mailbox and the back-end database server.

3.1.2 Timers

None.

3.1.3 Initialization

A User Profile Service Application implementing the User Profile Service Web Service protocol, as defined by [MS-USPSWS] MUST be available before this protocol can be used.

3.1.4 Message Processing Events and Sequencing Rules

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

Operation	Description
BeginCacheRefresh	Triggers the server to create a job to aggregate tasks on behalf of the calling user and writes results to a storage location.
BeginCreateTaskPropagation	Triggers the server to create a task (3) in the external synchronization server.
BeginDeleteTaskPropagation	Triggers the server to delete a task in an external task (3) server.
BeginExchangeSync	Starts a server synchronization for the current user.

Operation	Description
BeginRelocateTaskPropagation	Triggers the server to move a task in an external task server to a target location on that server.
BeginUpdateTaskPropagation	Triggers the server to update a task in an external task server.
GetExchangeSyncInfo	Returns information about an external server synchronization for a user.
OptIntoExchangeSync	Triggers the server to turn on synchronization with a task server for a user.
OptOutOfExchangeSync	Turns off task synchronization with a task server for a user.

3.1.4.1 BeginCacheRefresh

Triggers the server to create a job to aggregate tasks on behalf of the calling user and writes results to a storage location.

The following is the **WSDL** port type specification of the **BeginCacheRefresh WSDL operation**.

```
<wsdl:operation name="BeginCacheRefresh" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginCacheRefresh"
message="tns2:IWorkManagementServiceApplication_BeginCacheRefresh_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginCacheRefreshResponse"
message="tns2:IWorkManagementServiceApplication_BeginCacheRefresh_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

The method returns confirmation of whether an aggregation job was created.

3.1.4.1.1 Messages

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

Message	Description
IWorkManagementServiceApplication_BeginCacheRefresh_InputMessage	The request WSDL message for the **BeginCacheRefresh** WSDL operation.
IWorkManagementServiceApplication_BeginCacheRefresh_OutputMessage	The response WSDL message for the **BeginCacheRefresh** WSDL operation.

3.1.4.1.1.1 IWorkManagementServiceApplication_BeginCacheRefresh_InputMessage

The request WSDL message for the **BeginCacheRefresh** WSDL operation.

The **SOAP action** value is:

```
http://tempuri.org/IWorkManagementServiceApplication/BeginCacheRefresh
```

The **SOAP body** contains the **BeginCacheRefresh** element.

3.1.4.1.1.2 IWorkManagementServiceApplication_BeginCacheRefresh_OutputMessage

The response WSDL message for the **BeginCacheRefresh** WSDL operation.

The SOAP body contains the **BeginCacheRefreshResponse** element.

3.1.4.1.2 Elements

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

Element	Description
BeginCacheRefresh	The input data for the **BeginCacheRefresh** WSDL operation.
BeginCacheRefreshResponse	The result data for the **BeginCacheRefresh** WSDL operation.

3.1.4.1.2.1 BeginCacheRefresh

The **BeginCacheRefresh** element specifies the input data for the **BeginCacheRefresh** WSDL operation.

```
<xs:element name="BeginCacheRefresh" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.1.2.2 BeginCacheRefreshResponse

The **BeginCacheRefreshResponse** element specifies the result data for the **BeginCacheRefresh** WSDL operation.

```
<xs:element name="BeginCacheRefreshResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"
minOccurs="0" name="BeginCacheRefreshResult" nillable="true"
type="tns:CreateRefreshJobResult"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

BeginCacheRefreshResult: Returns the CreateRefreshJobResult that indicates the result of the aggregation refresh request.

3.1.4.1.3 Complex Types

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

Complex type	Description
CreateRefreshJobResult	Information about the task aggregation job that was created as a result of the refresh request.

3.1.4.1.3.1 CreateRefreshJobResult

Namespace: http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement

Information resulting from a request to create an aggregation refresh job.

```
<xs:complexType name="CreateRefreshJobResult" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="CreatedJob" type="xs:boolean"/>
    <xs:element minOccurs="0" name="CurrentJobId" nillable="true" type="xs:int"/>
    <xs:element minOccurs="0" name="CurrentJobIdClient" type="xs:int"/>
    <xs:element minOccurs="0" name="EncounteredError" type="xs:boolean"/>
  </xs:sequence>
</xs:complexType>
```

CreatedJob: The result of creating a new refresh job, which MUST return true if the job was successfully created and false if the job was not. A job will not be created if there is already a job running for that user or an error occurs while creating the job.

CurrentJobId: The integer identifier of the job that is currently running on behalf of the user. This MAY be the job created as a result of the request, or a job that is still in progress. MUST return NULL if creation of the job failed.

CurrentJobIdClient: Same as **CurrentJobId**, except that it MUST return **WmaClientConstants.NoValue** if the creation of the job failed instead of NULL.

EncounteredError: MUST return true if there was an error while creating the job and false otherwise.

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 BeginExchangeSync

Starts a server synchronization for the current user.

The following is the WSDL port type specification of the **BeginExchangeSync** WSDL operation.

```
<wsdl:operation name="BeginExchangeSync" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSync"
message="tns2:IWorkManagementServiceApplication_BeginExchangeSync_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSyncResponse"
message="tns2:IWorkManagementServiceApplication_BeginExchangeSync_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

This operation returns whether the synchronization process successfully started.

3.1.4.2.1 Messages

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

Message	Description
IWorkManagementServiceApplication_BeginExchangeSync_InputMessage	The request WSDL message for the **BeginExchangeSync** WSDL operation.
IWorkManagementServiceApplication_BeginExchangeSync_OutputMessage	The response WSDL message for the **BeginExchangeSync** WSDL operation.

3.1.4.2.1.1 IWorkManagementServiceApplication_BeginExchangeSync_InputMessage

The request WSDL message for the **BeginExchangeSync** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSync
```

The SOAP body contains the **BeginExchangeSync** element.

3.1.4.2.1.2 IWorkManagementServiceApplication_BeginExchangeSync_OutputMessage

The response WSDL message for the **BeginExchangeSync** WSDL operation.

The SOAP body contains the **BeginExchangeSyncResponse** element.

3.1.4.2.2 Elements

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

Element	Description
BeginExchangeSync	The input data for the **BeginExchangeSync** WSDL operation.
BeginExchangeSyncResponse	The result data for the **BeginExchangeSync** WSDL operation.

3.1.4.2.2.1 BeginExchangeSync

The **BeginExchangeSync** element specifies the input data for the **BeginExchangeSync** WSDL operation.

```
<xs:element name="BeginExchangeSync" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.2.2.2 BeginExchangeSyncResponse

The **BeginExchangeSyncResponse** element specifies the result data for the **BeginExchangeSync** WSDL operation.

```
<xs:element name="BeginExchangeSyncResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="BeginExchangeSyncResult" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

BeginExchangeSyncResult: MUST return true if the synchronization job successfully started and false if not.

3.1.4.2.3 Complex Types

None.

3.1.4.2.4 Simple Types

None.

3.1.4.2.5 Attributes

None.

3.1.4.2.6 Groups

None.

3.1.4.2.7 Attribute Groups

None.

3.1.4.3 BeginCreateTaskPropagation

Triggers the server to create a task (3) in the external synchronization server.

The following is the WSDL port type specification of the **BeginCreateTaskPropagation** WSDL operation.

```
<wsdl:operation name="BeginCreateTaskPropagation"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginCreateTaskPropagation"
message="tns2:IWorkManagementServiceApplication_BeginCreateTaskPropagation_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginCreateTaskPropagationR
esponse"
message="tns2:IWorkManagementServiceApplication_BeginCreateTaskPropagation_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

The method returns acknowledgement that the request was received and will be processed.

3.1.4.3.1 Messages

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

Message	Description
IWorkManagementServiceApplication_BeginCreateTaskPropagation_InputMessage	The request WSDL message for the **BeginCreateTaskPropagation** WSDL operation.
IWorkManagementServiceApplication_BeginCreateTaskPropagation_OutputMessage	The response WSDL message for the **BeginCreateTaskPropagation** WSDL operation.

3.1.4.3.1.1 IWorkManagementServiceApplication_BeginCreateTaskPropagation_InputMessage

The request WSDL message for the **BeginCreateTaskPropagation** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IWorkManagementServiceApplication/BeginCreateTaskPropagation
```

The SOAP body contains the **BeginCreateTaskPropagation** element.

3.1.4.3.1.2 IWorkManagementServiceApplication_BeginCreateTaskPropagation_OutputMessage

The response WSDL message for the **BeginCreateTaskPropagation** WSDL operation.

The SOAP body contains the **BeginCreateTaskPropagationResponse** element.

3.1.4.3.2 Elements

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

Element	Description
BeginCreateTaskPropagation	The input data for the **BeginCreateTaskPropagation** WSDL operation.
BeginCreateTaskPropagationResponse	The result data for the **BeginCreateTaskPropagation** WSDL operation.

3.1.4.3.2.1　BeginCreateTaskPropagation

The **BeginCreateTaskPropagation** element specifies the input data for the **BeginCreateTaskPropagation** WSDL operation.

```
<xs:element name="BeginCreateTaskPropagation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="taskId" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

taskId: The integer identifier of the task to be created.

3.1.4.3.2.2　BeginCreateTaskPropagationResponse

The **BeginCreateTaskPropagationResponse** element specifies the result data for the **BeginCreateTaskPropagation** WSDL operation.

```
<xs:element name="BeginCreateTaskPropagationResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.3.3 Complex Types

None.

3.1.4.3.4 Simple Types

None.

3.1.4.3.5 Attributes

None.

3.1.4.3.6 Groups

None.

3.1.4.3.7 Attribute Groups

None.

3.1.4.4 BeginDeleteTaskPropagation

Triggers the server to delete a task in an external task (3) server.

The following is the WSDL port type specification of the **BeginDeleteTaskPropagation** WSDL operation.

```
<wsdl:operation name="BeginDeleteTaskPropagation"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginDeleteTaskPropagation"
message="tns2:IWorkManagementServiceApplication_BeginDeleteTaskPropagation_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginDeleteTaskPropagationR
esponse"
message="tns2:IWorkManagementServiceApplication_BeginDeleteTaskPropagation_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

The method returns acknowledgement that the request was received and will be processed.

3.1.4.4.1 Messages

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

Message	Description
IWorkManagementServiceApplication_BeginDeleteTaskPropagation_InputMessage	The request WSDL message for the **BeginDeleteTaskPropagation** WSDL operation.
IWorkManagementServiceApplication_BeginDeleteTaskPropagation_OutputMessage	The response WSDL message for the **BeginDeleteTaskPropagation** WSDL operation.

3.1.4.4.1.1 IWorkManagementServiceApplication_BeginDeleteTaskPropagation_InputMessage

The request WSDL message for the **BeginDeleteTaskPropagation** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IWorkManagementServiceApplication/BeginDeleteTaskPropagation
```

The SOAP body contains the **BeginDeleteTaskPropagation** element.

3.1.4.4.1.2 IWorkManagementServiceApplication_BeginDeleteTaskPropagation_OutputMessage

The response WSDL message for the **BeginDeleteTaskPropagation** WSDL operation.

The SOAP body contains the **BeginDeleteTaskPropagationResponse** element.

3.1.4.4.2 Elements

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

Element	Description
BeginDeleteTaskPropagation	The input data for the **BeginDeleteTaskPropagation** WSDL operation.
BeginDeleteTaskPropagationResponse	The result data for the **BeginDeleteTaskPropagation** WSDL operation.

3.1.4.4.2.1 BeginDeleteTaskPropagation

The **BeginDeleteTaskPropagation** element specifies the input data for the **BeginDeleteTaskPropagation** WSDL operation.

```
<xs:element name="BeginDeleteTaskPropagation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="taskId" type="xs:int"/>
      <xs:element minOccurs="0" name="mappedKey" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

taskId: The integer identifier of the task to be deleted.

mappedKey: The unique identifier of the target location in the external server to delete the task from.

3.1.4.4.2.2 BeginDeleteTaskPropagationResponse

The **BeginDeleteTaskPropagationResponse** element specifies the result data for the **BeginDeleteTaskPropagation** WSDL operation.

```
<xs:element name="BeginDeleteTaskPropagationResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.4.3 Complex Types

None.

3.1.4.4.4 Simple Types

None.

3.1.4.4.5 Attributes

None.

3.1.4.4.6 Groups

None.

3.1.4.4.7 Attribute Groups

None.

3.1.4.5 BeginUpdateTaskPropagation

Triggers the server to update a task in an external task server.

The following is the WSDL port type specification of the **BeginUpdateTaskPropagation** WSDL operation.

```
<wsdl:operation name="BeginUpdateTaskPropagation"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginUpdateTaskPropagation"
message="tns2:IWorkManagementServiceApplication_BeginUpdateTaskPropagation_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginUpdateTaskPropagationR
esponse"
message="tns2:IWorkManagementServiceApplication_BeginUpdateTaskPropagation_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

The method returns acknowledgement that the request was received and will be processed.

3.1.4.5.1 Messages

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

Message	Description
IWorkManagementServiceApplication_BeginUpdateTaskPropagation_InputMessage	The request WSDL message for the **BeginUpdateTaskPropagation** WSDL operation.
IWorkManagementServiceApplication_BeginUpdateTaskPropagation_OutputMessage	The response WSDL message for the **BeginUpdateTaskPropagation** WSDL operation.

3.1.4.5.1.1 IWorkManagementServiceApplication_BeginUpdateTaskPropagation_InputMessage

The request WSDL message for the **BeginUpdateTaskPropagation** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IWorkManagementServiceApplication/BeginUpdateTaskPropagation
```

The SOAP body contains the **BeginUpdateTaskPropagation** element.

3.1.4.5.1.2   IWorkManagementServiceApplication_BeginUpdateTaskPropagation_Ou tputMessage

The response WSDL message for the **BeginUpdateTaskPropagation** WSDL operation.

The SOAP body contains the **BeginUpdateTaskPropagationResponse** element.

3.1.4.5.2 Elements

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

Element	Description
BeginUpdateTaskPropagation	The input data for the **BeginUpdateTaskPropagation** WSDL operation.
BeginUpdateTaskPropagationResponse	The result data for the **BeginUpdateTaskPropagation** WSDL operation.

3.1.4.5.2.1   BeginUpdateTaskPropagation

The **BeginUpdateTaskPropagation** element specifies the input data for the **BeginUpdateTaskPropagation** WSDL operation.

```
<xs:element name="BeginUpdateTaskPropagation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="taskId" type="xs:int"/>
      <xs:element minOccurs="0" name="lastModified" type="xs:dateTime"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

taskId: The integer identifier of the task that needs to be updated.

lastModified: The datetime when the task that needs to be updated was last updated.

3.1.4.5.2.2   BeginUpdateTaskPropagationResponse

The **BeginUpdateTaskPropagationResponse** element specifies the result data for the **BeginUpdateTaskPropagation** WSDL operation.

```
<xs:element name="BeginUpdateTaskPropagationResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.5.3 Complex Types

None.

3.1.4.5.4 Simple Types

None.

3.1.4.5.5 Attributes

None.

3.1.4.5.6 Groups

None.

3.1.4.5.7 Attribute Groups

None.

3.1.4.6 GetExchangeSyncInfo

Returns information about an external server synchronization for a user.

The following is the WSDL port type specification of the **GetExchangeSyncInfo** WSDL operation.

```
<wsdl:operation name="GetExchangeSyncInfo" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/GetExchangeSyncInfo"
message="tns2:IWorkManagementServiceApplication_GetExchangeSyncInfo_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/GetExchangeSyncInfoResponse
" message="tns2:IWorkManagementServiceApplication_GetExchangeSyncInfo_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

Returns the ExchangeSyncInfoResult that indicates the user's external server synchronization status.

3.1.4.6.1 Messages

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

Message	Description
IWorkManagementServiceApplication_GetExchangeSyncInfo_InputMessage	The request WSDL message for the **GetExchangeSyncInfo** WSDL operation.
IWorkManagementServiceApplication_GetExchangeSyncInfo_OutputMessage	The response WSDL message for the **GetExchangeSyncInfo** WSDL operation.

3.1.4.6.1.1 IWorkManagementServiceApplication_GetExchangeSyncInfo_InputMessage

The request WSDL message for the **GetExchangeSyncInfo** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IWorkManagementServiceApplication/GetExchangeSyncInfo
```

The SOAP body contains the **GetExchangeSyncInfo** element.

3.1.4.6.1.2 IWorkManagementServiceApplication_GetExchangeSyncInfo_OutputMessage

The response WSDL message for the **GetExchangeSyncInfo** WSDL operation.

The SOAP body contains the **GetExchangeSyncInfoResponse** element.

3.1.4.6.2 Elements

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

Element	Description
GetExchangeSyncInfo	The input data for the **GetExchangeSyncInfo** WSDL operation.
GetExchangeSyncInfoResponse	The result data for the **GetExchangeSyncInfo** WSDL operation.

3.1.4.6.2.1 GetExchangeSyncInfo

The **GetExchangeSyncInfo** element specifies the input data for the **GetExchangeSyncInfo** WSDL operation.

```
<xs:element name="GetExchangeSyncInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.6.2.2 GetExchangeSyncInfoResponse

The **GetExchangeSyncInfoResponse** element specifies the result data for the **GetExchangeSyncInfo** WSDL operation.

```
<xs:element name="GetExchangeSyncInfoResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"
minOccurs="0" name="GetExchangeSyncInfoResult" nillable="true"
type="tns:ExchangeUserSyncState"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetExchangeSyncInfoResult: The ExchangeSyncInfoResult that indicates the user's external server synchronization status.

3.1.4.6.3 Complex Types

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

Complex type	Description
ExchangeUserSyncState	Information about the external server synchronization status for a user.

3.1.4.6.3.1 ExchangeUserSyncState

Namespace: http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement

Represents status for external task (3) server synchronization operations for a user, including whether or not the user is set up to synchronize with the server, the time that the last synchronization completed, and results of the last synchronization.

```
<xs:complexType name="ExchangeUserSyncState" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="IsOptedIn" type="xs:boolean"/>
    <xs:element minOccurs="0" name="LastEndTime" nillable="true" type="xs:dateTime"/>
    <xs:element minOccurs="0" name="LastSyncResult" type="tns:ExchangeSyncResult"/>
  </xs:sequence>
</xs:complexType>
```

IsOptedIn: Specifies whether synchronization is enabled for a user or not   MUST be true if tasks for the user will be synchronized and false otherwise.

LastEndTime: When the last synchronization operation completed

LastSyncResult: The outcome of the last synchronization operation for the user

3.1.4.6.4 Simple Types

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

Simple type	Description
ExchangeSyncResult	Information about a task server synchronization operation.

3.1.4.6.4.1 ExchangeSyncResult

Namespace: http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement

Results about a task server synchronization operation.

```
<xs:simpleType name="ExchangeSyncResult" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NoValue"/>
    <xs:enumeration value="Success"/>
    <xs:enumeration value="UnknownError"/>
    <xs:enumeration value="CouldNotConnectToExchange"/>
    <xs:enumeration value="CouldNotGetUserCredentials"/>
    <xs:enumeration value="CouldNotKickoffJob"/>
```

```
        <xs:enumeration value="SyncWithErrors"/>
    </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **ExchangeSyncResult** simple type.

Value	Meaning
NoValue	No value.
Success	The operation succeeded.
UnknownError	There was an unknown error during the synchronization.
CouldNotConnectToExchange	The operation could not connect with the external task server.
CouldNotGetUserCredentials	The operation could not get credentials for the user it was trying to synchronize.
CouldNotKickoffJob	The synchronization operation could not be started.
SyncWithErrors	The synchronization finished but with errors.

3.1.4.6.5 Attributes

None.

3.1.4.6.6 Groups

None.

3.1.4.6.7 Attribute Groups

None.

3.1.4.7 OptIntoExchangeSync

Triggers the server to turn on synchronization with a task server for a user.

The following is the WSDL port type specification of the **OptIntoExchangeSync** WSDL operation.

```
<wsdl:operation name="OptIntoExchangeSync" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/OptIntoExchangeSync"
message="tns2:IWorkManagementServiceApplication_OptIntoExchangeSync_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/OptIntoExchangeSyncResponse
" message="tns2:IWorkManagementServiceApplication_OptIntoExchangeSync_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

Returns the OptIntoExchangeSyncResult that indicates the result of the operation to turn on synchronization.

3.1.4.7.1 Messages

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

Message	Description
IWorkManagementServiceApplication_OptIntoExchangeSync_InputMessage	The request WSDL message for the **OptIntoExchangeSync** WSDL operation.
IWorkManagementServiceApplication_OptIntoExchangeSync_OutputMessage	The response WSDL message for the **OptIntoExchangeSync** WSDL operation.

3.1.4.7.1.1 IWorkManagementServiceApplication_OptIntoExchangeSync_InputMessage

The request WSDL message for the **OptIntoExchangeSync** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IWorkManagementServiceApplication/OptIntoExchangeSync
```

The SOAP body contains the **OptIntoExchangeSync** element.

3.1.4.7.1.2 IWorkManagementServiceApplication_OptIntoExchangeSync_OutputMessage

The response WSDL message for the **OptIntoExchangeSync** WSDL operation.

The SOAP body contains the **OptIntoExchangeSyncResponse** element.

3.1.4.7.2 Elements

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

Element	Description
OptIntoExchangeSync	The input data for the **OptIntoExchangeSync** WSDL operation.
OptIntoExchangeSyncResponse	The result data for the **OptIntoExchangeSync** WSDL operation.

3.1.4.7.2.1 OptIntoExchangeSync

The **OptIntoExchangeSync** element specifies the input data for the **OptIntoExchangeSync** WSDL operation.

```
<xs:element name="OptIntoExchangeSync" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.7.2.2 OptIntoExchangeSyncResponse

The **OptIntoExchangeSyncResponse** element specifies the result data for the
OptIntoExchangeSync WSDL operation.

```
<xs:element name="OptIntoExchangeSyncResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"
minOccurs="0" name="OptIntoExchangeSyncResult" type="tns:ExchangeOptInResult"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

OptIntoExchangeSyncResult: The ExchangeOptInResult that indicates the result of the operation to
turn on synchronization.

3.1.4.7.3 Complex Types

None.

3.1.4.7.4 Simple Types

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

Simple type	Description
ExchangeOptInResult	Information about whether or not the user was successfully set up to synchronize tasks.

3.1.4.7.4.1 ExchangeOptInResult

Namespace: http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement

Information about whether or not the user was successfully set up to synchronize tasks.

```
<xs:simpleType name="ExchangeOptInResult" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NoValue"/>
    <xs:enumeration value="Success"/>
    <xs:enumeration value="UnknownError"/>
    <xs:enumeration value="CouldNotConnectToExchange"/>
    <xs:enumeration value="CouldNotFindOrCreateMySite"/>
    <xs:enumeration value="UserAlreadyOptedIn"/>
    <xs:enumeration value="UserExchangeOperationPending"/>
    <xs:enumeration value="UnsupportedExchangeVersion"/>
    <xs:enumeration value="MissingEmailAddress"/>
    <xs:enumeration value="ExchangeWebServiceClientMissing"/>
    <xs:enumeration value="UnsupportedSharePointConfiguration"/>
    <xs:enumeration value="InvalidOrUnauthorizedUser"/>
    <xs:enumeration value="CouldNotActivateExchangeSyncFeatureOnSiteSubscription"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **ExchangeOptInResult** simple type.

Value	Meaning
NoValue	No value.
Success	The operation succeeded.
UnknownError	There was an unknown error when enabling synchronization.
CouldNotConnectToExchange	The operation could not connect with the external task server.
CouldNotFindOrCreateMySite	The synchronization operation could not find or create the user's personal site (2) in which to store synchronization data.
UserAlreadyOptedIn	The user was already set up to synchronize tasks.
UserExchangeOperationPending	The operation to enable synchronization is already in process.
UnsupportedExchangeVersion	The task server is not compatible with the synchronization operation.
MissingEmailAddress	The user's email address could not be found in the **User Profile Service**.
ExchangeWebServiceClientMissing	The component required to connect to the external task server is not available.
UnsupportedSharePointConfiguration	The local server is not configured correctly for synchronization with an external task server.
InvalidOrUnauthorizedUser	The user specified is not valid or unauthorized on the external task server.
CouldNotActivateExchangeSyncFeatureOnSiteSubscription	The synchronization operation could not be activated on the local server.

3.1.4.7.5 Attributes

None.

3.1.4.7.6 Groups

None.

3.1.4.7.7 Attribute Groups

None.

3.1.4.8 OptOutOfExchangeSync

Turns off task synchronization with a task server for a user.

The following is the WSDL port type specification of the **OptOutOfExchangeSync** WSDL operation.

```
<wsdl:operation name="OptOutOfExchangeSync" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
```

```
   <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/OptOutOfExchangeSync"
message="tns2:IWorkManagementServiceApplication_OptOutOfExchangeSync_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
   <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/OptOutOfExchangeSyncRespons
e" message="tns2:IWorkManagementServiceApplication_OptOutOfExchangeSync_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

Returns true if the operation to turn off synchronization was successful and false otherwise.

3.1.4.8.1 Messages

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

Message	Description
IWorkManagementServiceApplication_OptOutOfExchangeSync_InputMessage	The request WSDL message for the **OptOutOfExchangeSync** WSDL operation.
IWorkManagementServiceApplication_OptOutOfExchangeSync_OutputMessage	The response WSDL message for the **OptOutOfExchangeSync** WSDL operation.

3.1.4.8.1.1 IWorkManagementServiceApplication_OptOutOfExchangeSync_InputMessage

The request WSDL message for the **OptOutOfExchangeSync** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IWorkManagementServiceApplication/OptOutOfExchangeSync
```

The SOAP body contains the **OptOutOfExchangeSync** element.

3.1.4.8.1.2 IWorkManagementServiceApplication_OptOutOfExchangeSync_OutputMessage

The response WSDL message for the **OptOutOfExchangeSync** WSDL operation.

The SOAP body contains the **OptOutOfExchangeSyncResponse** element.

3.1.4.8.2 Elements

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

Element	Description
OptOutOfExchangeSync	The input data for the **OptOutOfExchangeSync** WSDL operation.

Element	Description
OptOutOfExchangeSyncResponse	The result data for the **OptOutOfExchangeSync** WSDL operation.

3.1.4.8.2.1 OptOutOfExchangeSync

The **OptOutOfExchangeSync** element specifies the input data for the **OptOutOfExchangeSync** WSDL operation.

```
<xs:element name="OptOutOfExchangeSync" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.8.2.2 OptOutOfExchangeSyncResponse

The **OptOutOfExchangeSyncResponse** element specifies the result data for the **OptOutOfExchangeSync** WSDL operation.

```
<xs:element name="OptOutOfExchangeSyncResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="OptOutOfExchangeSyncResult" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

OptOutOfExchangeSyncResult: The result of the operation to turn off synchronization.. MUST return true if successful and false otherwise.

3.1.4.8.3 Complex Types

None.

3.1.4.8.4 Simple Types

None.

3.1.4.8.5 Attributes

None.

3.1.4.8.6 Groups

None.

3.1.4.8.7 Attribute Groups

None.

3.1.4.9 BeginRelocateTaskPropagation

Triggers the server to move a task in an external task server to a target location on that server.

The following is the WSDL port type specification of the **BeginRelocateTaskPropagation** WSDL operation.

```
<wsdl:operation name="BeginRelocateTaskPropagation"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginRelocateTaskPropagatio
n" message="tns2:IWorkManagementServiceApplication BeginRelocateTaskPropagation InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginRelocateTaskPropagatio
nResponse"
message="tns2:IWorkManagementServiceApplication_BeginRelocateTaskPropagation_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

The method returns confirmation that the request was received and will be processed.

3.1.4.9.1 Messages

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

Message	Description
IWorkManagementServiceApplication_BeginRelocateTaskPropagation_InputMessage	The request WSDL message for the **BeginRelocateTaskPropagation** WSDL operation.
IWorkManagementServiceApplication_BeginRelocateTaskPropagation_OutputMessage	The response WSDL message for the **BeginRelocateTaskPropagation** WSDL operation.

3.1.4.9.1.1 IWorkManagementServiceApplication_BeginRelocateTaskPropagation_InputMessage

The request WSDL message for the **BeginRelocateTaskPropagation** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/IWorkManagementServiceApplication/BeginRelocateTaskPropagation
```

The SOAP body contains the **BeginRelocateTaskPropagation** element.

3.1.4.9.1.2 IWorkManagementServiceApplication_BeginRelocateTaskPropagation_OutputMessage

The response WSDL message for the **BeginRelocateTaskPropagation** WSDL operation.

The SOAP body contains the **BeginRelocateTaskPropagationResponse** element.

3.1.4.9.2 Elements

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

Element	Description
BeginRelocateTaskPropagation	The input data for the **BeginRelocateTaskPropagation** WSDL operation.
BeginRelocateTaskPropagationResponse	The result data for the **BeginRelocateTaskPropagation** WSDL operation.

3.1.4.9.2.1 BeginRelocateTaskPropagation

The **BeginRelocateTaskPropagation** element specifies the input data for the **BeginRelocateTaskPropagation** WSDL operation.

```
<xs:element name="BeginRelocateTaskPropagation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="taskId" type="xs:int"/>
      <xs:element minOccurs="0" name="mappedKey" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

taskId: The integer identifier of the task to be moved.

mappedKey: The unique identifier of the target location in the external server to move the task to.

3.1.4.9.2.2 BeginRelocateTaskPropagationResponse

The **BeginRelocateTaskPropagationResponse** element specifies the result data for the **BeginRelocateTaskPropagation** WSDL operation.

```
<xs:element name="BeginRelocateTaskPropagationResponse"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.9.3 Complex Types

None.

3.1.4.9.4 Simple Types

None.

3.1.4.9.5 Attributes

None.

3.1.4.9.6 Groups

None.

3.1.4.9.7 Attribute Groups

None.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None

4 Protocol Examples

In this scenario, the protocol client calls **BeginCacheRefresh** to request a task aggregation job on behalf of a user:

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="Security">
 <s:Header>
  <a:Action
s:mustUnderstand="1">http://tempuri.org/IWorkManagementServiceApplication/BeginCacheRefresh</
a:Action>
  <a:MessageID>urn:uuid:d9b6e13c-d6e6-46e1-a4e8-8e88006d273e</a:MessageID>
  <a:SequenceAcknowledgement>
   <a:ReplyTo>http://www.w3.org/2005/08/addressing/anonymous</a:ReplyTo>
  </a:SequenceAcknowledgement>
  <ServiceContext xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
   <correlationId>666b6e9b-7569-3030-1abf-a25007b984f2</correlationId>
   <devdashboardIsEnabled>false</devdashboardIsEnabled>
   <language>en-US</language>
   <region>en-US</region>
   <scopeId>99445843689490</scopeId>
   <siteSubscriptionId>00000000-0000-0000-0000-000000000000</siteSubscriptionId>
   <ulstraceOverrideLevel>10</ulstraceOverrideLevel>
  </ServiceContext>
  <a:To s:mustUnderstand="1"
u:Id="_1">http://serverurl:32843/44058d0990524be1b0f66a890da50007/WorkManagementService.svc</
a:To>
  <o:Timestamp s:mustUnderstand="1" xmlns:o="http://www.w3.org/2001/04/xmlenc#">
   <u:Created u:Id="_0">
    <u:Expires>2011-11-24T07:45:46.175Z</u:Expires>
    <u:Length>2011-11-24T07:50:46.175Z</u:Length>
   </u:Created>
   <saml:Assertion MajorVersion="1" MinorVersion="1" AssertionID="_9b6296d4-3f78-4887-8a99-
73355d77ed4b" Issuer="SharePoint" IssueInstant="2011-11-24T07:21:27.120Z"
xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion">
    <saml:Conditions NotBefore="2011-11-24T07:21:27.089Z" NotOnOrAfter="2011-11-
24T17:21:27.089Z">
     <saml:AudienceRestrictionCondition>
      <saml:Audience>urn:schemas-microsoft-com:sharepoint:service</saml:Audience>
     </saml:AudienceRestrictionCondition>
    </saml:Conditions>
    <saml:AttributeStatement>
     <saml:Subject>
      <saml:NameIdentifier>username</saml:NameIdentifier>
      <saml:SubjectConfirmation>
       <saml:ConfirmationMethod>urn:oasis:names:tc:SAML:1.0:cm:holder-of-
key</saml:ConfirmationMethod>
        <KeyInfo xmlns="http://www.w3.org/2000/09/xmldsig#">
         <KeyValue>
          <RSAKeyValue>

<Modulus>xTLtoGopRTYng4kkTo+AGsU9AYYqsoJ3TsiUdALBVW9C7hNQBgxOloCVV2H23ckHi1970VEyOmYAIIVxtMFL
jQb9TtDckncZDrN8CuL/Pc5LIKhH9zuFIjdbJiLqnYQBAyxHyLphEcW6MSRaTX62EoGk/pxPzZAhUocVOzvk7aU=</Mod
ulus>
          <Exponent>AQAB</Exponent>
         </RSAKeyValue>
        </KeyValue>
       </KeyInfo>
      </saml:SubjectConfirmation>
     </saml:Subject>
     <saml:Attribute AttributeName="primarysid"
AttributeNamespace="http://schemas.microsoft.com/ws/2008/06/identity/claims"
a:OriginalIssuer="Windows" xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
      <saml:AttributeValue>S-1-5-21-2127521184-1604012920-1887927527-
526964</saml:AttributeValue>
     </saml:Attribute>
```

```
      <saml:Attribute AttributeName="primarygroupsid"
AttributeNamespace="http://schemas.microsoft.com/ws/2008/06/identity/claims"
a:OriginalIssuer="Windows" xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>S-1-5-21-2127521184-1604012920-1887927527-
513</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="upn"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2005/05/identity/claims"
a:OriginalIssuer="Windows" xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>username@contoso.com</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="userlogonname"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="Windows" xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>Username</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="userid"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>0#.w|username</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="name"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2005/05/identity/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>0#.w|username</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="identityprovider"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>windows</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="isauthenticated"
AttributeNamespace="http://sharepoint.microsoft.com/claims/2009/08"
a:OriginalIssuer="SecurityTokenService"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>True</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="farmid"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="ClaimProvider:System"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>95cc4a80-a978-4077-aee9-1103092e5303</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="tokenreference"
AttributeNamespace="http://sharepoint.microsoft.com/claims/2009/08">
       <saml:AttributeValue>0).w|s-1-5-21-2127521184-1604012920-1887927527-
526964,0#.w|username,129666288871048579,True,mosiwjgtmyOf4EPy284D/Jwtb4Zff6qhlMZhV+dsneECHLdv
9sWwc8pWIqm/lxfZPgcr6udlpRKezroqoO17Nf+MzTSypfUe5ZwL6qhIuDmFE+LcjPVavwnVbE6ubBWPN9hM+Rv66vfCn
FNh/vM2tNQHv7hTqE29C3J6rNVBK1M4QFyCyZuH+GdED49S/55XDA5wmTSCgAz/t8swIM80vmHyMBtA4v0pKs2faXeN1F
N1npDaQvwNNNt0qYJv7Y0Nj3Ri8btJQ58BKX+HCztHZKqtQpBjoTH7XLb1Wsap1c6JdCo1Sghz8BQEK8U9QLx9vWVavMK
MfNywsyWtnSg3uw==,urn:schemas-microsoft-com:sharepoint:service</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="SidCompressed"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="Windows" xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue>S-1-5-21-2127521184-1604012920-
1887927527;513;3235764;5631067;6527764;1495408;2041268;5958388;5001327;6527739;2898815;634623
;6527783;492976;6527730;5951129;6527781;6525568;3535576;7360148;5377546;6621241;3168605;30615
41;3794426;4600588;7781173;4466716;4933277;3168614;1421044;7681958;7347463;5782818;7781172;31
68604;8091924;8133536;1910859;326949;7781246;3535807;7864574;7149326;5005350;3533463;6088077;
7338907;8084865;2115484;1921745;6598066;7485662;2738467;7513462;6835656;7957251;3240403;31213
04;7492442;1821296;7693631;6094633;3535581;8139922;1924384;7311515;3244172;3244301;7781169;77
81163;4552137;3168601;3168602;6129242;6071320;8227456;5518445;6835659;7781164;5124256;5869759
;1929380;8004468;7856854;2927357;6634566;2889412;650728;7856812;7877130;175772;2361615;650727
;6527731;771043;7547205;7856860;7877049;6527765;4814166;6639913;1700934;6984515;2547081;77640
26;6527784;4666181;2361614;4662838;6527782;7205074;4662826;2015132;7856806;6634544;1230889;26
```

71629;6260547;2289587;6634723;7856956;7672696;6253091;6916102;4923067;6639947;7842436;7547198
;4968904;6634530;7672705;3457292;6639831;1378086;4662824;5135771;4662842;7755302;6634516;1908
118;1908119;7856977;1230890;1378084;1472082;2400103;2542707;1908120;6001903;158181;4571792;20
62437;6015065;556526;771112;7672780;2289588;2529053;5107804;1390170;7877064;6984513;2361613;7
25547;6639879;1378088;6639888;7672699;5107803;6634527;754149;2671628;1472096;6634538;7856830;
1908117;1908121;2984327;7856938;6680169;6639833;571;6634536;3132840;6634505;6634528;7844666;7
764017;7316492;6634535;6527740;6869767;6634518;6634503;2361612;1378091;6634531|S-1-1;0|S-1-5-
21-1049126966-2357333717-3104358719;1012|S-1-5;11|S-1-5-21-2146773085-903363285-
719344707;1309616;1146011;1253526;1260212;1252077|S-1-5-21-1721254763-462695806-
1538882281;3217681;3207910|S-1-5-21-124525095-708259637-
1543119021;1115857;1115914;1115908;1165956;1115917;926551;926563;1115903|S-1-5-
64;10|</saml:AttributeValue>
      </saml:Attribute>
      <saml:Attribute AttributeName="actor"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue><Actor><saml:Attribute AttributeName="nameidentifier"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2005/05/identity/claims"
a:OriginalIssuer="SharePoint" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValue&gt
;username</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="userlogonname"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="Windows" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValue&gt
;Username</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="userid"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="SecurityTokenService" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValue&gt
;0#.w|username</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="identityprovider"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="SecurityTokenService" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValue&gt
;windows</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="isauthenticated"
AttributeNamespace="http://sharepoint.microsoft.com/claims/2009/08"
a:OriginalIssuer="SecurityTokenService" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValue&gt
;True</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="name"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2005/05/identity/claims"
a:OriginalIssuer="SecurityTokenService" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValue&gt
;0#.w|username</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="farmid"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="ClaimProvider:System" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValue&gt
;95cc4a80-a978-4077-aee9-
1103092e5303</saml:AttributeValue></saml:Attribute></Actor></saml:Attribute
Value>
      </saml:Attribute>
     </saml:AttributeStatement>
     <saml:AuthenticationStatement
AuthenticationMethod="urn:federation:authentication:windows" AuthenticationInstant="2011-11-
24T07:21:26.995Z">
      <saml:Subject>
       <saml:NameIdentifier>username</saml:NameIdentifier>
       <saml:SubjectConfirmation>
        <saml:ConfirmationMethod>urn:oasis:names:tc:SAML:1.0:cm:holder-of-
key</saml:ConfirmationMethod>
        <KeyInfo xmlns="http://www.w3.org/2000/09/xmldsig#">
         <KeyValue>
          <RSAKeyValue>

<Modulus>xTLtoGopRTYng4kkTo+AGsU9AYYqsoJ3TsiUdALBVW9C7hNQBgxOloCVV2H23ckHi1970VEyOmYAIIVxtMFL
jQb9TtDckncZDrN8CuL/Pc5LIKhH9zuFIjdbJiLqnYQBAyxHyLphEcW6MSRaTX62EoGk/pxPzZAhUocVOzvk7aU=</Mod
ulus>
          <Exponent>AQAB</Exponent>

```
          </RSAKeyValue>
        </KeyValue>
      </KeyInfo>
     </saml:SubjectConfirmation>
    </saml:Subject>
   </saml:AuthenticationStatement>
   <ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
    <ds:SignedInfo>
     <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
     </ds:CanonicalizationMethod>
     <ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256">
     </ds:SignatureMethod>
     <ds:Reference URI="#_9b6296d4-3f78-4887-8a99-73355d77ed4b">
      <ds:Transforms>
       <ds:Transform Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature">
       </ds:Transform>
       <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
       </ds:Transform>
      </ds:Transforms>
      <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256">
      </ds:DigestMethod>
      <ds:DigestValue>p+PdaqS/EfOyTid+2Tr5yH8xywIik1KktiaoN9FzIPA=</ds:DigestValue>
     </ds:Reference>
    </ds:SignedInfo>

<ds:SignatureValue>g9VAK+5/ZGLOZk8rd5RUG99Q/g9Qnh+JTeHi3Dt9REyn6aLH7DJ2P2qRenrrMPMyQIqUIF/NfX
pXfo8UqLX1+02HQZl88ZoCqXzQUj6iLeEWI2OVXlyFehdvtFG+3UsTKWdR3wVJ7CWh62u/SOXvPiM8GyXitGnG5AE6bja
82fnV+QNxrlYKMbMMeMgBmIs9B87x4Ivq7ksetFstbiXO3mIZcz1YsTTCLkeX2StxlhF+yb0EsdLJ6NcCxUJk0y6KzATt
f6TEfzmhSoqq2J82DaablbtY0z8HBTmr27rQ9mVU1SvYra9PoBsw1S5Q8fD/GFgxtfVZ60UYXpBQ+ArQow==</ds:Sign
atureValue>
      <KeyInfo xmlns="http://www.w3.org/2000/09/xmldsig#">
       <X509Data>

<X509Certificate>MIIERjCCAi6gAwIBAgIQM5u5YNJ2qZRK7/rf8N2SezANBgkqhkiG9w0BAQUFADBaMQswCQYDVQQG
EwJVUzESMBAGA1UEChMJTWljcm9zb2Z0MRMwEQYDVQQLEwpTaGFyZVBvaW50MSIwIAYDVQQDExlTaGFyZVBvaW50IFJvb3
3QgQXV0aG9yaXR5MCAXDTExMTEyMzAwMzg1MFoYDzk5OTkxMTAxMDAwMDAwWjBiMQswCQYDVQQGEwJVUzESMBAGA1UECh
MJTWljcm9zb2Z0MRMwEQYDVQQLEwpTaGFyZVBvaW50MSowKAYDVQQDEyFTaGFyZVBvaW50IFNlY3VyaXR5IFRva2VuIFN
lcnZpY2UwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQCzHm/BcOXm6TYMGMQYc+XPR/9YTG0RXYi43SG0C9wR
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FGzIT8h3KbR20lMqw8TvUSpTQiFAlaP0ldU3PoRQYwck6OQ5Z3plYZ7bL4KOkxvcPgbSsRoQ/R0odkdokNw3yE5yQUo21
Y1X289hwsYoWrXGYxIBz8B82bZe3Ty1H5edU3SJU9P2nCoC/8xDkhjQp0lrrwTOHcwcqaBeqdmyCZT0QafnAQlm7NpSuF
6UEyMGd343NlZtC6CgxisqT1Kl9Dcw54ryG0R9CrP5RsJGyk+tMeWlYG/i08V26o3Y9Hq/iC8JoYM9mlTmAMAekKawxY4
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1sl7lXx+dbY2+sBSKfO534OsCyuERX4i3HcdUaHAIIwoY26Yy3mkkU3AJL7eKex/09Sr2GfTxxBS818dCXagagFQ+qJv8
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gKlVJGtljp6gDsMM/xgAh/H+OVYQ0t5HbCdZ7vPeKxubGoEFYit6MpahdjWqZU6s5m2dNQ9tMJ57e2jhIhztSE</X509C
ertificate>
       </X509Data>
      </KeyInfo>
     </ds:Signature>
    </saml:Assertion>
    <SignedInfo xmlns="http://www.w3.org/2000/09/xmldsig#enveloped-signature">
     <CanonicalizationMethod>
      <SignatureMethod Algorithm="PrefixList">
      </SignatureMethod>
      <SignatureValue Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256">
      </SignatureValue>
      <Reference URI="#_0">
       <Transforms>
        <Transform Algorithm="PrefixList">
        </Transform>
       </Transforms>
       <DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256">
       </DigestMethod>
       <Address>U+ftZ2ktf2g6IYzZHI3l4WH7I40=</Address>
      </Reference>
```

```
        <Reference URI="#_1">
         <Transforms>
          <Transform Algorithm="PrefixList">
          </Transform>
         </Transforms>
         <DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256">
         </DigestMethod>
         <Address>E0mgpYR9TOws6SpBQXM/j4UjD2w=</Address>
        </Reference>
      </CanonicalizationMethod>

    <DataReference>sAMgAVtnJAl+VsmvyoEgobVTSTOScwhI6TYOtquA1Bb3cxN9QFCw+WNLmuAg3VQ24ZuZUe2nfxGMsJ
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=</DataReference>
         <http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd>
         <o:Sequence k:http://docs.oasis-open.org/wss/oasis-wss-soap-message-security-
1.1#ThumbprintSHA1="http://docs.oasis-open.org/wss/oasis-wss-saml-token-profile-1.1#SAMLV1.1"
xmlns:k="RequestSecurityTokenResponseCollection">
          <o:http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-soap-message-security-
1.0#Base64Binary Type="http://docs.oasis-open.org/wss/oasis-wss-saml-token-profile-
1.0#SAMLAssertionID">_9b6296d4-3f78-4887-8a99-73355d77ed4b</o:http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-soap-message-security-1.0#Base64Binary>
         </o:Sequence>
        </http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd>
      </SignedInfo>
     </o:Timestamp>
    </s:Header>
    <s:Body>
     <BeginCacheRefresh xmlns="http://tempuri.org/">
     </BeginCacheRefresh>
    </s:Body>
</s:Envelope>
```

The protocol server might respond with a message such as this one:

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="Security">
 <s:Header>
  <a:Action
s:mustUnderstand="1">http://tempuri.org/IWorkManagementServiceApplication/BeginCacheRefreshRe
sponse</a:Action>
  <ActivityId CorrelationId="668cb0dd-3d8c-4f55-af96-22cfb06c13d3"
xmlns="http://schemas.microsoft.com/2004/09/ServiceModel/Diagnostics">58cad185-6509-43cd-
8e89-58a3338b0cdd</ActivityId>
  <a:RelatesTo>urn:uuid:d9b6e13c-d6e6-46e1-a4e8-8e88006d273e</a:RelatesTo>
  <ServiceResourceConsumption xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
   <CPUMCycles>2288</CPUMCycles>
   <ManagedMemoryBytes i:nil="true">
   </ManagedMemoryBytes>
   <ManagedMemoryBytesLOH i:nil="true">
   </ManagedMemoryBytesLOH>
   <TotalSqlQueryCount>19</TotalSqlQueryCount>
   <TotalSqlQueryDuration>74</TotalSqlQueryDuration>
  </ServiceResourceConsumption>
  <o:Timestamp s:mustUnderstand="1" xmlns:o="http://www.w3.org/2001/04/xmlenc#">
   <u:Created u:Id="_0">
    <u:Expires>2011-11-24T07:45:47.028Z</u:Expires>
    <u:Length>2011-11-24T07:50:47.028Z</u:Length>
   </u:Created>
  </o:Timestamp>
 </s:Header>
 <s:Body>
  <BeginCacheRefreshResponse xmlns="http://tempuri.org/">
   <BeginCacheRefreshResult
xmlns:b="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
```

```
      <b:CreatedJob>true</b:CreatedJob>
      <b:CurrentJobId>2</b:CurrentJobId>
      <b:CurrentJobIdClient>2</b:CurrentJobIdClient>
    </BeginCacheRefreshResult>
  </BeginCacheRefreshResponse>
 </s:Body>
</s:Envelope>
```

In this scenario, the protocol client calls **BeginExchangeSync** to request a task synchronization job on behalf of a user:

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="Security">
 <s:Header>
  <a:Action
s:mustUnderstand="1">http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSy
nc</a:Action>
  <a:MessageID>urn:uuid:1246723e-3b80-448d-9b1e-bfe889babd78</a:MessageID>
  <a:SequenceAcknowledgement>
   <a:ReplyTo>http://www.w3.org/2005/08/addressing/anonymous</a:ReplyTo>
  </a:SequenceAcknowledgement>
  <ServiceContext xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
   <correlationId>93ef6f9b-65fb-3030-1abf-a71cdec960af</correlationId>
   <devdashboardIsEnabled>false</devdashboardIsEnabled>
   <language>en-US</language>
   <region>en-US</region>
   <scopeId>4286270333255698</scopeId>
   <siteSubscriptionId>00000000-0000-0000-0000-000000000000</siteSubscriptionId>
   <ulstraceOverrideLevel>0</ulstraceOverrideLevel>
  </ServiceContext>
  <a:To s:mustUnderstand="1"
u:Id="_1">http://servername:port/44058d0990524be1b0f66a890da50007/WorkManagementService.s
vc</a:To>
  <o:Timestamp s:mustUnderstand="1" xmlns:o="http://www.w3.org/2001/04/xmlenc#">
   <u:Created u:Id=" 0">
    <u:Expires>2011-11-29T00:49:38.851Z</u:Expires>
    <u:Length>2011-11-29T00:54:38.851Z</u:Length>
   </u:Created>
   <saml:Assertion MajorVersion="1" MinorVersion="1" AssertionID="_a760cacb-9550-4af5-
8ad0-e3b902ae1891" Issuer="SharePoint" IssueInstant="2011-11-28T17:29:46.432Z"
xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion">
    <saml:Conditions NotBefore="2011-11-28T17:29:46.416Z" NotOnOrAfter="2011-11-
29T03:29:46.416Z">
     <saml:AudienceRestrictionCondition>
      <saml:Audience>urn:schemas-microsoft-com:sharepoint:service</saml:Audience>
     </saml:AudienceRestrictionCondition>
    </saml:Conditions>
    <saml:AttributeStatement>
     <saml:Subject>
      <saml:NameIdentifier>username</saml:NameIdentifier>
      <saml:SubjectConfirmation>
       <saml:ConfirmationMethod>urn:oasis:names:tc:SAML:1.0:cm:holder-of-
key</saml:ConfirmationMethod>
       <KeyInfo xmlns="http://www.w3.org/2000/09/xmldsig#">
        <KeyValue>
         <RSAKeyValue>

<Modulus>33Z32MKwwMpKEQf16k+Z2C7lsFrEtj0AvliOKUE33xhSHB91111jvDorzNIANA2BUbEQFZGmfGbVzbKd
G0o9un978aRNAzZyit53GYaeZo5qPMvJkrTTbUjcJ77Rf/4osXxiEcCo0IVrf4m6qOyOlaOKAM3KZadAZD+v/psQA
9E=</Modulus>
          <Exponent>AQAB</Exponent>
         </RSAKeyValue>
        </KeyValue>
       </KeyInfo>
      </saml:SubjectConfirmation>
```

```
        </saml:Subject>
        <saml:Attribute AttributeName="primarysid"
AttributeNamespace="http://schemas.microsoft.com/ws/2008/06/identity/claims"
a:OriginalIssuer="Windows"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>S-1-5-21-2127521184-1604012920-1887927527-
526964</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="primarygroupsid"
AttributeNamespace="http://schemas.microsoft.com/ws/2008/06/identity/claims"
a:OriginalIssuer="Windows"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>S-1-5-21-2127521184-1604012920-1887927527-
513</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="upn"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2005/05/identity/claims"
a:OriginalIssuer="Windows"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>username@contoso.com</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="userlogonname"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="Windows"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>Username</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="userid"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>0#.w|username</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="name"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2005/05/identity/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>0#.w|username</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="identityprovider"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>windows</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="isauthenticated"
AttributeNamespace="http://sharepoint.microsoft.com/claims/2009/08"
a:OriginalIssuer="SecurityTokenService"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>True</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="farmid"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="ClaimProvider:System"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
          <saml:AttributeValue>95cc4a80-a978-4077-aee9-1103092e5303</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="tokenreference"
AttributeNamespace="http://sharepoint.microsoft.com/claims/2009/08">
          <saml:AttributeValue>0).w|s-1-5-21-2127521184-1604012920-1887927527-
526964,0#.w|username,129670109864168945,True,BwACO6nxCcbSMU1RgxAqtUmvDqvyo70g8KKPdguhzCtN
TEtDrEbGA98YUsfJcT+JN5qk22/SlHAsjd2l+b5hh8JW2oRJJ2bpiJQeC3rdkIv9pj8p5NjeEHF3noP3eYP2CwVxR
VUr6NZ/jmc7Q7B7/cJsmRsJhMrmHNaqCCLIWr5XpuNnHomSrEeCdqBnZGpwYE9HhscTicQsf3wKCR+0iBEFgftj0K
J4irJWD9p5YWRHsVXUSmMnfP5zqE9hBbjt7JhCX+EZuDd/fWjzkXzrrf3rB3JMKRxZOCyH70BFmIBRNVynnYdiWNU
HHCmOlgnnAwoFjGBFiy+iH+T00LK6eg==,urn:schemas-microsoft-
com:sharepoint:service</saml:AttributeValue>
        </saml:Attribute>
        <saml:Attribute AttributeName="SidCompressed"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
```

a:OriginalIssuer="Windows"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
        <saml:AttributeValue>S-1-5-21-2127521184-1604012920-
1887927527;513;3235764;5631067;6527764;1495408;2041268;5958388;5001327;6527739;2898815;63
4623;6527783;492976;6527730;5951129;6527781;6525568;3535576;7360148;5377546;6621241;31686
05;3061541;3794426;4600588;7781173;4466716;4933277;3168614;1421044;7681958;7347463;578281
8;7781172;3168604;8091924;8133536;1910859;326949;7781246;3535807;7864574;7149326;5005350;
3533463;6088077;7338907;8084865;2115484;1921745;6598066;7485662;2738467;7513462;6835656;7
957251;3240403;3121304;7492442;1821296;7693631;6094633;3535581;8139922;1924384;7311515;32
44172;3244301;7781169;7781163;4552137;3168601;3168602;6129242;6071320;8227456;5518445;683
5659;7781164;5124256;5869759;1929380;8004468;7856854;2927357;6634566;2889412;650728;78568
12;7877130;175772;2361615;650727;6527731;771043;7547205;7856860;7877049;6527765;4814166;6
639913;1700934;6984515;2547081;7764026;6527784;4666181;2361614;4662838;6527782;7205074;46
62826;2015132;7856806;6634544;1230889;2671629;6260547;2289587;6634723;7856956;7672696;625
3091;6916102;4923067;6639947;7842436;7547198;4968904;6634530;7672705;3457292;6639831;1378
086;4662824;5135771;4662842;7755302;6634516;1908118;1908119;7856977;1230890;1378084;14720
82;2400103;2542707;1908120;6001903;158181;4571792;2062437;6015065;556526;771112;7672780;2
289588;2529053;5107804;1390170;7877064;6984513;2361613;725547;6639879;1378088;6639888;767
2699;5107803;6634527;754149;2671628;1472096;6634538;7856830;1908117;1908121;2984327;78569
38;6680169;6639833;571;6634536;3132840;6634505;6634528;7844666;7764017;7316492;6634535;65
27740;6869767;6634518;6634503;2361612;1378091;6634531|S-1-1;0|S-1-5;11|S-1-5-21-
2146773085-903363285-719344707;1309616;1146011;1253526;1260212;1252077|S-1-5-21-
1721254763-462695806-1538882281;3217681;3207910|S-1-5-21-124525095-708259637-
1543119021;1115857;1115914;1115908;1165956;1115917;926551;926563;1115903|</saml:Attribute
Value>
      </saml:Attribute>
      <saml:Attribute AttributeName="actor"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
       <saml:AttributeValue><Actor><saml:Attribute AttributeName="nameidentifier"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2005/05/identity/claims"
a:OriginalIssuer="SharePoint" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValu
e>user</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="userlogonname"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="Windows" xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValu
e>Username</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="userid"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValu
e>0#.w|username</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="identityprovider"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValu
e>windows</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="isauthenticated"
AttributeNamespace="http://sharepoint.microsoft.com/claims/2009/08"
a:OriginalIssuer="SecurityTokenService"
xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValu
e>True</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="name"
AttributeNamespace="http://schemas.xmlsoap.org/ws/2005/05/identity/claims"
a:OriginalIssuer="SecurityTokenService"
xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValu
e>0#.w|username</saml:AttributeValue></saml:Attribute><saml:Attribute
AttributeName="farmid"
AttributeNamespace="http://schemas.microsoft.com/sharepoint/2009/08/claims"
a:OriginalIssuer="ClaimProvider:System"
xmlns:saml="urn:oasis:names:tc:SAML:1.0:assertion"
xmlns:a="http://schemas.xmlsoap.org/ws/2009/09/identity/claims"><saml:AttributeValu
e>95cc4a80-a978-4077-aee9-
1103092e5303</saml:AttributeValue></saml:Attribute></Actor></saml:Attri
buteValue>

```
        </saml:Attribute>
      </saml:AttributeStatement>
      <saml:AuthenticationStatement
AuthenticationMethod="urn:federation:authentication:windows" AuthenticationInstant="2011-
11-28T17:29:46.401Z">
        <saml:Subject>
         <saml:NameIdentifier>username</saml:NameIdentifier>
         <saml:SubjectConfirmation>
          <saml:ConfirmationMethod>urn:oasis:names:tc:SAML:1.0:cm:holder-of-
key</saml:ConfirmationMethod>
          <KeyInfo xmlns="http://www.w3.org/2000/09/xmldsig#">
           <KeyValue>
            <RSAKeyValue>

<Modulus>33Z32MKwwMpKEQf16k+Z2C7lsFrEtj0AvliOKUE33xhSHB91111jvDorzNIANA2BUbEQFZGmfGbVzbKd
G0o9un978aRNAzZyit53GYaeZo5qPMvJkrTTbUjcJ77Rf/4osXxiEcCo0IVrf4m6qOyOlaOKAM3KZadAZD+v/psQA
9E=</Modulus>
             <Exponent>AQAB</Exponent>
            </RSAKeyValue>
           </KeyValue>
          </KeyInfo>
         </saml:SubjectConfirmation>
        </saml:Subject>
      </saml:AuthenticationStatement>
      <ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
       <ds:SignedInfo>
        <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
        </ds:CanonicalizationMethod>
        <ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256">
        </ds:SignatureMethod>
        <ds:Reference URI="# a760cacb-9550-4af5-8ad0-e3b902ae1891">
         <ds:Transforms>
          <ds:Transform Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature">
          </ds:Transform>
          <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
          </ds:Transform>
         </ds:Transforms>
         <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256">
         </ds:DigestMethod>
         <ds:DigestValue>wT/qfg6w6Oe795P1BA5QKTbxDm/4QZseLxla0FQTYFg=</ds:DigestValue>
        </ds:Reference>
       </ds:SignedInfo>

<ds:SignatureValue>diVGGc2qAaqTjaaYIRMjm5YZqqwYWmZo6T3MhlZb5rGn/jxyL9aW0m6nYMyKj/ltz8LZlo
GlXCbYCbhYAOyP9lmVPjEtwzmDhtzJeXTkddSA4ya+f396S9tMqDiQcldSAgQW8+hB1lbTJJ8fpDbfrUgG3yv31HC
+aFenES9B+Y9ShJNd84QPtYWExrYPzwS2tQMghly/ANUpEZtwoeks5fWDyyBUFrxT5j81Fm6UkatrDe7PNn3qcQLH
jE69x3HqYJwhi1Wnmhdz4QfV/Ivo21ItXw3mPVvu1w4LaH7YX2JYyWFovRB/BUO4eUbuJUzWyb/om2wYW2xONOjrB
Gk0JA==</ds:SignatureValue>
      <KeyInfo xmlns="http://www.w3.org/2000/09/xmldsig#">
       <X509Data>

<X509Certificate>MIIERjCCAi6gAwIBAgIQM5u5YNJ2qZRK7/rf8N2SezANBgkqhkiG9w0BAQUFADBaMQswCQYD
VQQGEwJVUzESMBAGA1UEChMJTWljcm9zb2Z0MRMwEQYDVQQLEwpTaGFyZVBvaW50MSIwIAYDVQQDExlTaGFyZVBva
W50IFJvb3QgQXV0aG9yaXR5MCAXDTExMTEyMzAwMzg1MFoYDzk5OTkwMTAxMDAwMDAwWjBiMQswCQYDVQQGEwJVUz
ESMBAGA1UEChMJTWljcm9zb2Z0MRMwEQYDVQQLEwpTaGFyZVBvaW50MSowKAYDVQQDEyFTaGFyZVBvaW50IFNlY3V
yaXR5IFRva2VuIFNlcnZpY2UwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQCzHm/BcOXm6TYMGMQYc+XP
R/9YTG0RXYi43SG0C9wRqzipS6r/AU+hidfFpUOS3bjER5wCcLiG39cokOlBmk5uYkNgQpEcEshgklbeyfsQfs4M5
jbcoz5z+FmK4CqN1LebHDJgN6vcONnxBKmvR0H4szZ45p2fbpLTueJvIeM4/89lTaIvByI7a6HU6pIWl3jYTa9Mdt
VSgQj3ExiLw7k4hlec+0+CiqrYnLiMQe30Urdl0CS71uwQsTJcrY0u5zwNFJL9A+PLUwg8HS2bsAUe50dvc1MIMS4
ifAOkMDkdpQYqutjeZLyMJOty0dhlHUUYlo1LUDtvR2YaykogoekPAgMBAAEwDQYJKoZIhvcNAQEFBQADggIBAJgA
ElPG3l4GeVA8mIfE2mAc1SWjDM4xaA+azelZFGzIT8h3KbR20lMqw8TvUSpTQiFAlaP0ldU3PoRQYwck6OQ5Z3plY
Z7bL4KOkxvcPgbSsRoQ/R0odkdoknNw3yE5yQUo21Y1X289hwsYoWrXGYxIBz8B82bZe3Ty1H5edU3SJU9P2nCoC/8
xDkhjQp0lrrwTOHcwcqaBeqdmyCZT0QafnAQlm7NpSuF6UEyMGd343NlZtC6CgxisqT1Kl9Dcw54ryG0R9CrP5RsJ
Gyk+tMeWlYG/i08V26o3Y9Hq/iC8JoYM9mlTmAMAekKawxY43SxObEmqiVP6mX6NlStWxIwU7HhGjz6sgOhQGU3Lj
lr4cMe6yBhzWZ/reOjGI/viDNuFkbrLtzRDAFe+oG1T9VWcUtV4p1sl7lXx+dbY2+sBSKfO534OsCyuERX4i3HcdU
aHAIIwoY26Yy3mkkU3AJL7eKex/09Sr2GfTxxBS818dCXagagFQ+qJv8CVn8WyyHhkb20u8gzIBwNjbdoSjcmJh1B
7q7rJd06gLi0jp7HqtsYYcsw/Y6XBSp8S09uENVhrgiZdNzBIhUu39igm5sugKlVJGtljp6gDsMM/xgAh/H+0VYQ0
t5HbCdZ7vPeKxubGoEFYit6MpahdjWqZU6s5m2dNQ9tMJ57e2jhIhztSE</X509Certificate>
       </X509Data>
```

```
    </KeyInfo>
   </ds:Signature>
  </saml:Assertion>
  <SignedInfo xmlns="http://www.w3.org/2000/09/xmldsig#enveloped-signature">
   <CanonicalizationMethod>
    <SignatureMethod Algorithm="PrefixList">
    </SignatureMethod>
    <SignatureValue Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256">
    </SignatureValue>
    <Reference URI="#_0">
     <Transforms>
      <Transform Algorithm="PrefixList">
      </Transform>
     </Transforms>
     <DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256">
     </DigestMethod>
     <Address>sybFh758WbKHAB6sqM0Za+X5UQg=</Address>
    </Reference>
    <Reference URI="#_1">
     <Transforms>
      <Transform Algorithm="PrefixList">
      </Transform>
     </Transforms>
     <DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256">
     </DigestMethod>
     <Address>E0mgpYR9TOws6SpBQXM/j4UjD2w=</Address>
    </Reference>
   </CanonicalizationMethod>

<DataReference>kEwSrGK8PJvww92WEEbVp/kfqhhG9VBH6U2lrxaDcfiu5vQjlgt1GVKhijYhbJMgcZKoKf/BGD
RyLS3ZCmAQWDBfg+TTX4E/BLiz/XPRC0Ixnad6MwS1e+FEtOnPHG9swQjavgno3lAgVERKMfREY1ADS72L96Ov7gE
J0bd76dc=</DataReference>
      <http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd>
       <o:Sequence k:http://docs.oasis-open.org/wss/oasis-wss-soap-message-security-
1.1#ThumbprintSHA1="http://docs.oasis-open.org/wss/oasis-wss-saml-token-profile-
1.1#SAMLV1.1" xmlns:k="RequestSecurityTokenResponseCollection">
        <o:http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-soap-message-security-
1.0#Base64Binary Type="http://docs.oasis-open.org/wss/oasis-wss-saml-token-profile-
1.0#SAMLAssertionID">_a760cacb-9550-4af5-8ad0-e3b902ae1891</o:http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-soap-message-security-1.0#Base64Binary>
       </o:Sequence>
      </http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd>
    </SignedInfo>
   </o:Timestamp>
  </s:Header>
  <s:Body>
   <BeginExchangeSync xmlns="http://tempuri.org/">
   </BeginExchangeSync>
  </s:Body>
</s:Envelope>
```

The protocol server might respond with a message such as this one:

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="Security">
 <s:Header>
  <a:Action
s:mustUnderstand="1">http://tempuri.org/IWorkManagementServiceApplication/BeginExch
angeSyncResponse</a:Action>
  <ActivityId CorrelationId="be8fbd1c-5b27-4527-a8bf-d65b51a20d89"
xmlns="http://schemas.microsoft.com/2004/09/ServiceModel/Diagnostics">701b8f86-
20fa-4451-960a-d3767f47b2c1</ActivityId>
  <a:RelatesTo>urn:uuid:1246723e-3b80-448d-9b1e-bfe889babd78</a:RelatesTo>
```

```
        <ServiceResourceConsumption
xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
          <CPUMCycles>1257</CPUMCycles>
          <ManagedMemoryBytes i:nil="true">
          </ManagedMemoryBytes>
          <ManagedMemoryBytesLOH i:nil="true">
          </ManagedMemoryBytesLOH>
          <TotalSqlQueryCount>8</TotalSqlQueryCount>
          <TotalSqlQueryDuration>25</TotalSqlQueryDuration>
        </ServiceResourceConsumption>
        <o:Timestamp s:mustUnderstand="1" xmlns:o="http://www.w3.org/2001/04/xmlenc#">
          <u:Created u:Id="_0">
           <u:Expires>2011-11-29T00:49:39.324Z</u:Expires>
           <u:Length>2011-11-29T00:54:39.324Z</u:Length>
          </u:Created>
        </o:Timestamp>
       </s:Header>
       <s:Body>
        <BeginExchangeSyncResponse xmlns="http://tempuri.org/">
         <BeginExchangeSyncResult>true</BeginExchangeSyncResult>
        </BeginExchangeSyncResponse>
       </s:Body>
      </s:Envelope>
```

5 Security

5.1 Security Considerations for Implementers

Aggregation and synchronization will occur on behalf of the user whose identity is tied to the request. Implementers need to make sure that the identity is established for the correct user prior to making calls to this protocol.

5.2 Index of Security Parameters

None.

6   Appendix A: Full WSDL

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

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns2="http://tempuri.org/" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl" targetNamespace="http://tempuri.org/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xs:schema xmlns:tns3="http://tempuri.org/Imports"
targetNamespace="http://tempuri.org/Imports">
      <xs:import
namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"/>
      <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/"/>
      <xs:import namespace="http://tempuri.org/"/>
    </xs:schema>
  </wsdl:types>
  <wsdl:portType name="IWorkManagementServiceApplication">
    <wsdl:operation name="BeginCacheRefresh">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginCacheRefresh"
message="tns2:IWorkManagementServiceApplication_BeginCacheRefresh_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginCacheRefreshResponse"
message="tns2:IWorkManagementServiceApplication_BeginCacheRefresh_OutputMessage"/>
    </wsdl:operation>
    <wsdl:operation name="BeginExchangeSync">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSync"
message="tns2:IWorkManagementServiceApplication_BeginExchangeSync_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSyncResponse"
message="tns2:IWorkManagementServiceApplication_BeginExchangeSync_OutputMessage"/>
    </wsdl:operation>
    <wsdl:operation name="OptIntoExchangeSync">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/OptIntoExchangeSync"
message="tns2:IWorkManagementServiceApplication_OptIntoExchangeSync_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/OptIntoExchangeSyncResponse
" message="tns2:IWorkManagementServiceApplication_OptIntoExchangeSync_OutputMessage"/>
    </wsdl:operation>
    <wsdl:operation name="OptOutOfExchangeSync">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/OptOutOfExchangeSync"
message="tns2:IWorkManagementServiceApplication_OptOutOfExchangeSync_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/OptOutOfExchangeSyncRespons
e" message="tns2:IWorkManagementServiceApplication_OptOutOfExchangeSync_OutputMessage"/>
    </wsdl:operation>
    <wsdl:operation name="GetExchangeSyncInfo">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/GetExchangeSyncInfo"
message="tns2:IWorkManagementServiceApplication_GetExchangeSyncInfo_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/GetExchangeSyncInfoResponse
" message="tns2:IWorkManagementServiceApplication_GetExchangeSyncInfo_OutputMessage"/>
    </wsdl:operation>
    <wsdl:operation name="BeginCreateTaskPropagation">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginCreateTaskPropagation"
message="tns2:IWorkManagementServiceApplication_BeginCreateTaskPropagation_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginCreateTaskPropagationR
esponse"
message="tns2:IWorkManagementServiceApplication_BeginCreateTaskPropagation_OutputMessage"/>
```

```
    </wsdl:operation>
    <wsdl:operation name="BeginUpdateTaskPropagation">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginUpdateTaskPropagation"
message="tns2:IWorkManagementServiceApplication_BeginUpdateTaskPropagation_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginUpdateTaskPropagationR
esponse"
message="tns2:IWorkManagementServiceApplication_BeginUpdateTaskPropagation_OutputMessage"/>
    </wsdl:operation>
    <wsdl:operation name="BeginDeleteTaskPropagation">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginDeleteTaskPropagation"
message="tns2:IWorkManagementServiceApplication_BeginDeleteTaskPropagation_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginDeleteTaskPropagationR
esponse"
message="tns2:IWorkManagementServiceApplication_BeginDeleteTaskPropagation_OutputMessage"/>
    </wsdl:operation>
    <wsdl:operation name="BeginRelocateTaskPropagation">
      <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginRelocateTaskPropagatio
n"
message="tns2:IWorkManagementServiceApplication_BeginRelocateTaskPropagation_InputMessage"/>
      <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginRelocateTaskPropagatio
nResponse"
message="tns2:IWorkManagementServiceApplication_BeginRelocateTaskPropagation_OutputMessage"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="DefaultBinding IWorkManagementServiceApplication"
type="tns2:IWorkManagementServiceApplication">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="BeginCacheRefresh">
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/BeginCacheRefresh"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="BeginExchangeSync">
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSync"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="OptIntoExchangeSync">
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/OptIntoExchangeSync"
style="document"/>
      <wsdl:input>
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="OptOutOfExchangeSync">
```

```
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/OptOutOfExchangeSync"
style="document"/>
        <wsdl:input>
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetExchangeSyncInfo">
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/GetExchangeSyncInfo"
style="document"/>
        <wsdl:input>
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="BeginCreateTaskPropagation">
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/BeginCreateTaskPropagation"
style="document"/>
        <wsdl:input>
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="BeginUpdateTaskPropagation">
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/BeginUpdateTaskPropagation"
style="document"/>
        <wsdl:input>
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="BeginDeleteTaskPropagation">
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/BeginDeleteTaskPropagation"
style="document"/>
        <wsdl:input>
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="BeginRelocateTaskPropagation">
      <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/BeginRelocateTaskPropagation
" style="document"/>
        <wsdl:input>
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output>
          <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:message name="IWorkManagementServiceApplication_BeginCacheRefresh_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginCacheRefresh"/>
  </wsdl:message>
```

```
  <wsdl:message name="IWorkManagementServiceApplication_BeginCacheRefresh_OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginCacheRefreshResponse"/>
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication_BeginCreateTaskPropagation_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginCreateTaskPropagation"/>
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication_BeginCreateTaskPropagation_OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginCreateTaskPropagationResponse"/>
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication_BeginDeleteTaskPropagation_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginDeleteTaskPropagation"/>
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication BeginDeleteTaskPropagation OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginDeleteTaskPropagationResponse"/>
  </wsdl:message>
  <wsdl:message name="IWorkManagementServiceApplication_BeginExchangeSync_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginExchangeSync"/>
  </wsdl:message>
  <wsdl:message name="IWorkManagementServiceApplication BeginExchangeSync OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginExchangeSyncResponse"/>
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication_BeginRelocateTaskPropagation_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginRelocateTaskPropagation"/>
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication BeginRelocateTaskPropagation OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginRelocateTaskPropagationResponse"/>
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication_BeginUpdateTaskPropagation_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginUpdateTaskPropagation"/>
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication_BeginUpdateTaskPropagation_OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginUpdateTaskPropagationResponse"/>
  </wsdl:message>
  <wsdl:message name="IWorkManagementServiceApplication GetExchangeSyncInfo InputMessage">
    <wsdl:part name="parameters" element="tns2:GetExchangeSyncInfo"/>
  </wsdl:message>
  <wsdl:message name="IWorkManagementServiceApplication_GetExchangeSyncInfo_OutputMessage">
    <wsdl:part name="parameters" element="tns2:GetExchangeSyncInfoResponse"/>
  </wsdl:message>
  <wsdl:message name="IWorkManagementServiceApplication OptIntoExchangeSync InputMessage">
    <wsdl:part name="parameters" element="tns2:OptIntoExchangeSync"/>
  </wsdl:message>
  <wsdl:message name="IWorkManagementServiceApplication_OptIntoExchangeSync_OutputMessage">
    <wsdl:part name="parameters" element="tns2:OptIntoExchangeSyncResponse"/>
  </wsdl:message>
  <wsdl:message name="IWorkManagementServiceApplication OptOutOfExchangeSync InputMessage">
    <wsdl:part name="parameters" element="tns2:OptOutOfExchangeSync"/>
  </wsdl:message>
  <wsdl:message name="IWorkManagementServiceApplication OptOutOfExchangeSync OutputMessage">
    <wsdl:part name="parameters" element="tns2:OptOutOfExchangeSyncResponse"/>
  </wsdl:message>
</wsdl:definitions>
```

7 Appendix B: Full XML Schema

Schema name	Prefix	Section
http://schemas.datacontract.org/2004/07 /Microsoft.Office.Server.WorkManagement	tns	7.1
http://schemas.microsoft.com/2003/10/Serialization/	tns1	7.2
http://tempuri.org/	tns2	7.3

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

7.1 http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"
elementFormDefault="qualified"
targetNamespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManageme
nt" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType name="CreateRefreshJobResult">
    <xs:sequence>
      <xs:element minOccurs="0" name="CreatedJob" type="xs:boolean"/>
      <xs:element minOccurs="0" name="CurrentJobId" nillable="true" type="xs:int"/>
      <xs:element minOccurs="0" name="CurrentJobIdClient" type="xs:int"/>
      <xs:element minOccurs="0" name="EncounteredError" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="CreateRefreshJobResult" nillable="true"
type="tns:CreateRefreshJobResult"/>
  <xs:simpleType name="ExchangeOptInResult">
    <xs:restriction base="xs:string">
      <xs:enumeration value="NoValue"/>
      <xs:enumeration value="Success"/>
      <xs:enumeration value="UnknownError"/>
      <xs:enumeration value="CouldNotConnectToExchange"/>
      <xs:enumeration value="CouldNotFindOrCreateMySite"/>
      <xs:enumeration value="UserAlreadyOptedIn"/>
      <xs:enumeration value="UserExchangeOperationPending"/>
      <xs:enumeration value="UnsupportedExchangeVersion"/>
      <xs:enumeration value="MissingEmailAddress"/>
      <xs:enumeration value="ExchangeWebServiceClientMissing"/>
      <xs:enumeration value="UnsupportedSharePointConfiguration"/>
      <xs:enumeration value="InvalidOrUnauthorizedUser"/>
      <xs:enumeration value="CouldNotActivateExchangeSyncFeatureOnSiteSubscription"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="ExchangeOptInResult" nillable="true" type="tns:ExchangeOptInResult"/>
  <xs:complexType name="ExchangeUserSyncState">
    <xs:sequence>
      <xs:element minOccurs="0" name="IsOptedIn" type="xs:boolean"/>
      <xs:element minOccurs="0" name="LastEndTime" nillable="true" type="xs:dateTime"/>
      <xs:element minOccurs="0" name="LastSyncResult" type="tns:ExchangeSyncResult"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="ExchangeUserSyncState" nillable="true" type="tns:ExchangeUserSyncState"/>
  <xs:simpleType name="ExchangeSyncResult">
    <xs:restriction base="xs:string">
      <xs:enumeration value="NoValue"/>
      <xs:enumeration value="Success"/>
      <xs:enumeration value="UnknownError"/>
      <xs:enumeration value="CouldNotConnectToExchange"/>
```

```
      <xs:enumeration value="CouldNotGetUserCredentials"/>
      <xs:enumeration value="CouldNotKickoffJob"/>
      <xs:enumeration value="SyncWithErrors"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="ExchangeSyncResult" nillable="true" type="tns:ExchangeSyncResult"/>
</xs:schema>
```

7.2 http://schemas.microsoft.com/2003/10/Serialization/ Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:tns1="http://schemas.microsoft.com/2003/10/Serialization/"
attributeFormDefault="qualified" elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/2003/10/Serialization/"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="anyType" nillable="true" type="xs:anyType"/>
  <xs:element name="anyURI" nillable="true" type="xs:anyURI"/>
  <xs:element name="base64Binary" nillable="true" type="xs:base64Binary"/>
  <xs:element name="boolean" nillable="true" type="xs:boolean"/>
  <xs:element name="byte" nillable="true" type="xs:byte"/>
  <xs:element name="dateTime" nillable="true" type="xs:dateTime"/>
  <xs:element name="decimal" nillable="true" type="xs:decimal"/>
  <xs:element name="double" nillable="true" type="xs:double"/>
  <xs:element name="float" nillable="true" type="xs:float"/>
  <xs:element name="int" nillable="true" type="xs:int"/>
  <xs:element name="long" nillable="true" type="xs:long"/>
  <xs:element name="QName" nillable="true" type="xs:QName"/>
  <xs:element name="short" nillable="true" type="xs:short"/>
  <xs:element name="string" nillable="true" type="xs:string"/>
  <xs:element name="unsignedByte" nillable="true" type="xs:unsignedByte"/>
  <xs:element name="unsignedInt" nillable="true" type="xs:unsignedInt"/>
  <xs:element name="unsignedLong" nillable="true" type="xs:unsignedLong"/>
  <xs:element name="unsignedShort" nillable="true" type="xs:unsignedShort"/>
  <xs:element name="char" nillable="true" type="tns1:char"/>
  <xs:simpleType name="char">
    <xs:restriction base="xs:int"/>
  </xs:simpleType>
  <xs:element name="duration" nillable="true" type="tns1:duration"/>
  <xs:simpleType name="duration">
    <xs:restriction base="xs:duration">
      <xs:pattern value="\-?P(\d*D)?(T(\d*H)?(\d*M)?(\d*(\.\d*)?S)?)?"/>
      <xs:minInclusive value="-P10675199DT2H48M5.4775808S"/>
      <xs:maxInclusive value="P10675199DT2H48M5.4775807S"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="guid" nillable="true" type="tns1:guid"/>
  <xs:simpleType name="guid">
    <xs:restriction base="xs:string">
      <xs:pattern value="[\da-fA-F]{8}-[\da-fA-F]{4}-[\da-fA-F]{4}-[\da-fA-F]{4}-[\da-fA-
F]{12}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:attribute name="FactoryType" type="xs:QName"/>
  <xs:attribute name="Id" type="xs:ID"/>
  <xs:attribute name="Ref" type="xs:IDREF"/>
</xs:schema>
```

7.3 http://tempuri.org/ Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema elementFormDefault="qualified" targetNamespace="http://tempuri.org/"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:import
namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"/>
  <xs:element name="BeginCacheRefresh">
```

```
          <xs:complexType>
            <xs:sequence/>
          </xs:complexType>
        </xs:element>
        <xs:element name="BeginCacheRefreshResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"
minOccurs="0" name="BeginCacheRefreshResult" nillable="true"
type="tns:CreateRefreshJobResult"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="BeginExchangeSync">
          <xs:complexType>
            <xs:sequence/>
          </xs:complexType>
        </xs:element>
        <xs:element name="BeginExchangeSyncResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="BeginExchangeSyncResult" type="xs:boolean"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="OptIntoExchangeSync">
          <xs:complexType>
            <xs:sequence/>
          </xs:complexType>
        </xs:element>
        <xs:element name="OptIntoExchangeSyncResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"
minOccurs="0" name="OptIntoExchangeSyncResult" type="tns:ExchangeOptInResult"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="OptOutOfExchangeSync">
          <xs:complexType>
            <xs:sequence/>
          </xs:complexType>
        </xs:element>
        <xs:element name="OptOutOfExchangeSyncResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="OptOutOfExchangeSyncResult" type="xs:boolean"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="GetExchangeSyncInfo">
          <xs:complexType>
            <xs:sequence/>
          </xs:complexType>
        </xs:element>
        <xs:element name="GetExchangeSyncInfoResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement"
minOccurs="0" name="GetExchangeSyncInfoResult" nillable="true"
type="tns:ExchangeUserSyncState"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="BeginCreateTaskPropagation">
          <xs:complexType>
```

```
            <xs:sequence>
              <xs:element minOccurs="0" name="taskId" type="xs:int"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="BeginCreateTaskPropagationResponse">
          <xs:complexType>
            <xs:sequence/>
          </xs:complexType>
        </xs:element>
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              <xs:element minOccurs="0" name="lastModified" type="xs:dateTime"/>
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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 SharePoint Server 2013

- Microsoft SharePoint Server 2016 Preview

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

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

9   Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as New, Major, Minor, Editorial, or No change.

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

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

- A document revision that incorporates changes to interoperability requirements or functionality.

- The removal of a document from the documentation set.

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

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

The revision class **No change** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the technical content of the document is identical to the last released version.

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

- New content added.

- Content updated.

- Content removed.

- New product behavior note added.

- Product behavior note updated.

- Product behavior note removed.

- New protocol syntax added.

- Protocol syntax updated.

- Protocol syntax removed.

- New content added due to protocol revision.

- Content updated due to protocol revision.

- Content removed due to protocol revision.

- New protocol syntax added due to protocol revision.

- Protocol syntax updated due to protocol revision.

- Protocol syntax removed due to protocol revision.

- Obsolete document removed.

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

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

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

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

The changes made to this document are listed in the following table. For more information, please contact dochelp@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
8 Appendix C: Product Behavior	Updated list of supported products.	Y	Content updated due to protocol revision.

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