

# [MS-WMS]: Work Management Service Web Service Protocol Specification

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## Revision Summary

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# 1 Introduction

The Work Management 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 RFC 2119. Sections 1.5 and 1.9 are also normative but cannot contain those terms. All other sections and examples in this specification are informative.

## 1.1 Glossary

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

### Unicode

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

**application server**  
**back-end database server**  
**personal site**  
**SOAP action**  
**SOAP body**  
**SOAP fault**  
**task**  
**Uniform Resource Locator (URL)**  
**user profile**  
**User Profile Service**  
**WSDL message**  
**WSDL operation**  
**XML namespace**  
**XML namespace prefix**  
**XML schema**

The following terms are specific to this document:

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

## 1.2 References

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

### 1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact [dochelp@microsoft.com](mailto:dochelp@microsoft.com). We will assist you in finding the relevant information. Please check the archive site, <http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624>, as an additional source.



[MS-SPSTWS] Microsoft Corporation, "[SharePoint Security Token Service Web Service Protocol Specification](#)".

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

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

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

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

### 1.2.2 Informative References

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

[MS-OFCGLOS] Microsoft Corporation, "[Microsoft Office Master Glossary](#)".

[MS-USPSWS] Microsoft Corporation, "[User Profile Service Web Service Protocol Specification](#)".

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

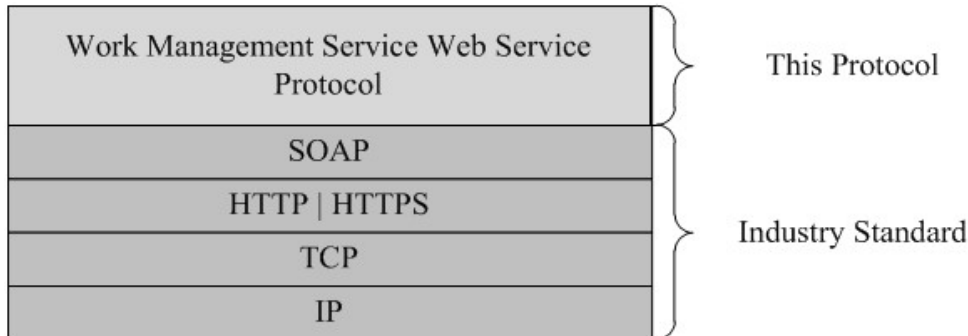
### 1.3 Overview

This protocol allows protocol clients to refresh a user's **task (3)** 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 (3) 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	<a href="http://schemas.xmlsoap.org/wsdl/soap/">http://schemas.xmlsoap.org/wsdl/soap/</a>	<a href="#">[SOAP1.1]</a>
tns	<a href="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement">http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement</a>	
tns1	<a href="http://schemas.microsoft.com/2003/10/Serialization/">http://schemas.microsoft.com/2003/10/Serialization/</a>	
tns2	<a href="http://tempuri.org/">http://tempuri.org/</a>	
tns3	<a href="http://tempuri.org/Imports">http://tempuri.org/Imports</a>	
wsaw	<a href="http://www.w3.org/2006/05/addressing/wsdl">http://www.w3.org/2006/05/addressing/wsdl</a>	Web Service Addressing <a href="#">[WSA1.0]</a>
wsdl	<a href="http://schemas.xmlsoap.org/wsdl/">http://schemas.xmlsoap.org/wsdl/</a>	<a href="#">[WSDL]</a>
xs	<a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>	<a href="#">[XMLSCHEMA1]</a>

Prefi x	Namespace URI	Reference
		<a href="#">1</a> <a href="#">[XMLSCHEMA2</a> <a href="#">1</a>

## 2.2.2 Messages

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

## 2.2.3 Elements

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

## 2.2.4 Complex Types

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
<b>char</b>	A <b>char</b> simple type that represents a <b>Unicode</b> character. This type is not used by this protocol.
<b>duration</b>	A time interval with its period in days, hours, minutes, and seconds. This type is not used by this protocol.
<b>guid</b>	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 (3) 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 (3) cache. When called, the protocol server will aggregate tasks (3) 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 (3) 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
<b>BeginCacheRefresh</b>	Triggers the server to create a job to aggregate tasks (3) on behalf of the calling user and writes results to a storage location.
<b>BeginCreateTaskPropagation</b>	Triggers the server to create a task (3) in the external synchronization server.
<b>BeginDeleteTaskPropagation</b>	Triggers the server to delete a task (3) in an external task (3) server.

Operation	Description
<b>BeginExchangeSync</b>	Starts a server synchronization for the current user.
<b>BeginExchangeSyncForNextUsers</b>	Starts a server synchronization for the next set of users who need to be synchronized, where the next set is determined by the system.
<b>BeginRelocateTaskPropagation</b>	Triggers the server to move a task (3) in an external task (3) server to a target location on that server.
<b>BeginUpdateTaskPropagation</b>	Triggers the server to update a task (3) in an external task (3) server.
<b>GetExchangeSyncInfo</b>	Returns information about an external server synchronization for a user.
<b>OptIntoExchangeSync</b>	Triggers the server to turn on synchronization with a task (3) server for a user.
<b>OptOutOfExchangeSync</b>	Turns off task synchronization with a task (3) server for a user.

### 3.1.4.1 BeginCacheRefresh

Triggers the server to create a job to aggregate tasks (3) on behalf of the calling user and writes results to a storage location.

```
<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
<b>IWorkManagementServiceApplication_BeginCacheRefresh_InputMessage</b>	The request WSDL message for the <b>BeginCacheRefresh WSDL operation</b> .
<b>IWorkManagementServiceApplication_BeginCacheRefresh_OutputMessage</b>	The response WSDL message for the <b>BeginCacheRefresh WSDL operation</b> .

### 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
<b>BeginCacheRefresh</b>	The input data for the <b>BeginCacheRefresh</b> WSDL operation.
<b>BeginCacheRefreshResponse</b>	The result data for the <b>BeginCacheRefresh</b> 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
<b>CreateRefreshJobResult</b>	Information about the task (3) 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.

```
<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
<b>IWorkManagementServiceApplication_BeginExchangeSync_InputMessage</b>	The request WSDL message for the <b>BeginExchangeSync</b> WSDL operation.
<b>IWorkManagementServiceApplication_BeginExchangeSync_OutputMessage</b>	The response WSDL message for the <b>BeginExchangeSync</b> 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
<b>BeginExchangeSync</b>	The input data for the <b>BeginExchangeSync</b> WSDL operation.
<b>BeginExchangeSyncResponse</b>	The result data for the <b>BeginExchangeSync</b> 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 BeginExchangeSyncForNextUsers

Starts a server synchronization for the next set of users who need to be synchronized, where the next set is determined by the system.

```
<wsdl:operation name="BeginExchangeSyncForNextUsers"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSyncForNextUsers"
message="tns2:IWorkManagementServiceApplication_BeginExchangeSyncForNextUsers_InputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSyncForNextUsersResponse"
message="tns2:IWorkManagementServiceApplication_BeginExchangeSyncForNextUsers_OutputMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

Returns whether or not the synchronization process was successfully started.

#### 3.1.4.3.1 Messages

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

Message	Description
<b>IWorkManagementServiceApplication_BeginExchangeSyncForNextUsers_InputMessage</b>	The request WSDL message for the <b>BeginExchangeSyncForNextUsers</b> WSDL operation.
<b>IWorkManagementServiceApplication_BeginExchangeSyncForNextUsers_OutputMessage</b>	The response WSDL message for the <b>BeginExchangeSyncForNextUsers</b> WSDL operation.

##### 3.1.4.3.1.1

#### **IWorkManagementServiceApplication\_BeginExchangeSyncForNextUsers\_InputMessage**

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

The SOAP action value is:

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

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

### 3.1.4.3.1.2

#### **IWorkManagementServiceApplication\_BeginExchangeSyncForNextUsers\_Output Message**

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

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

### 3.1.4.3.2 Elements

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

Element	Description
<b>BeginExchangeSyncForNextUsers</b>	The input data for the <b>BeginExchangeSyncForNextUsers</b> WSDL operation.
<b>BeginExchangeSyncForNextUsersResponse</b>	The result data for the <b>BeginExchangeSyncForNextUsers</b> WSDL operation.

#### 3.1.4.3.2.1 BeginExchangeSyncForNextUsers

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

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

#### 3.1.4.3.2.2 BeginExchangeSyncForNextUsersResponse

The **BeginExchangeSyncForNextUsersResponse** element specifies the result data for the **BeginExchangeSyncForNextUsers** WSDL operation.

```
<xs:element name="BeginExchangeSyncForNextUsersResponse"  
  xmlns:xs="http://www.w3.org/2001/XMLSchema">  
  <xs:complexType>  
    <xs:sequence>  
      <xs:element minOccurs="0" name="BeginExchangeSyncForNextUsersResult" nillable="true"  
        type="xs:dateTime"/>  
    </xs:sequence>  
  </xs:complexType>  
</xs:element>
```

**BeginExchangeSyncForNextUsersResult:** Returns the BeginExchangeSyncForNextUserResult that indicates the result of the request to synchronize the next set of users.

### 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 BeginCreateTaskPropagation

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

```
<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.

### 3.1.4.4.1 Messages

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

Message	Description
<b>IWorkManagementServiceApplication_BeginCreateTaskPropagation_InputMessage</b>	The request WSDL message for the <b>BeginCreateTaskPropagation</b> WSDL operation.
<b>IWorkManagementServiceApplication_BeginCreateTaskPropagation_Ou</b>	The response WSDL message for the

Message	Description
<b>tputMessage</b>	<b>BeginCreateTaskPropagation</b> WSDL operation.

#### 3.1.4.4.1.1

### **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.

#### 3.1.4.4.1.2

### **IWorkManagementServiceApplication\_BeginCreateTaskPropagation\_OutputMessage**

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

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

#### 3.1.4.4.2 Elements

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

Element	Description
<b>BeginCreateTaskPropagation</b>	The input data for the <b>BeginCreateTaskPropagation</b> WSDL operation.
<b>BeginCreateTaskPropagationResponse</b>	The result data for the <b>BeginCreateTaskPropagation</b> WSDL operation.

#### 3.1.4.4.2.1 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.

### 3.1.4.4.2 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>
```

### 3.1.4.4.3 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 BeginDeleteTaskPropagation

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

```
<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.

### 3.1.4.5.1 Messages

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



Message	Description
<b>IWorkManagementServiceApplication_BeginDeleteTaskPropagation_InputMessage</b>	The request WSDL message for the <b>BeginDeleteTaskPropagation</b> WSDL operation.
<b>IWorkManagementServiceApplication_BeginDeleteTaskPropagation_OutputMessage</b>	The response WSDL message for the <b>BeginDeleteTaskPropagation</b> WSDL operation.

### 3.1.4.5.1.1

#### **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.

### 3.1.4.5.1.2

#### **IWorkManagementServiceApplication\_BeginDeleteTaskPropagation\_OutputMessage**

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

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

### 3.1.4.5.2 Elements

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

Element	Description
<b>BeginDeleteTaskPropagation</b>	The input data for the <b>BeginDeleteTaskPropagation</b> WSDL operation.
<b>BeginDeleteTaskPropagationResponse</b>	The result data for the <b>BeginDeleteTaskPropagation</b> WSDL operation.

#### 3.1.4.5.2.1 **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:sequence>
  </xs:complexType>
</xs:element>
```

```
        <xs:element minOccurs="0" name="mappedKey" nillable="true" type="xs:string"/>
    </xs:sequence>
</xs:complexType>
</xs:element>
```

**taskId:**

**mappedKey:**

### 3.1.4.5.2.2 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>
```

### 3.1.4.5.3 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 BeginUpdateTaskPropagation

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

```
<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.

### 3.1.4.6.1 Messages

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

Message	Description
<b>IWorkManagementServiceApplication_BeginUpdateTaskPropagation_InputMessage</b>	The request WSDL message for the <b>BeginUpdateTaskPropagation</b> WSDL operation.
<b>IWorkManagementServiceApplication_BeginUpdateTaskPropagation_OutputMessage</b>	The response WSDL message for the <b>BeginUpdateTaskPropagation</b> WSDL operation.

#### 3.1.4.6.1.1

### **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.

#### 3.1.4.6.1.2

### **IWorkManagementServiceApplication\_BeginUpdateTaskPropagation\_OutputMessage**

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

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

### 3.1.4.6.2 Elements

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

Element	Description
<b>BeginUpdateTaskPropagation</b>	The input data for the <b>BeginUpdateTaskPropagation</b> WSDL operation.
<b>BeginUpdateTaskPropagationResponse</b>	The result data for the <b>BeginUpdateTaskPropagation</b>

Element	Description
	WSDL operation.

### 3.1.4.6.2.1 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 (3) that needs to be updated.

**lastModified:** The datetime when the task (3) that needs to be updated was last updated.

### 3.1.4.6.2.2 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>
```

### 3.1.4.6.3 Complex Types

None.

### 3.1.4.6.4 Simple Types

None.

### 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 GetExchangeSyncInfo

Returns information about an external server synchronization for a user.

```
<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.

#### 3.1.4.7.1 Messages

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

Message	Description
<b>IWorkManagementServiceApplication_GetExchangeSyncInfo_InputMessage</b>	The request WSDL message for the <b>GetExchangeSyncInfo</b> WSDL operation.
<b>IWorkManagementServiceApplication_GetExchangeSyncInfo_OutputMessage</b>	The response WSDL message for the <b>GetExchangeSyncInfo</b> WSDL operation.

##### 3.1.4.7.1.1

#### **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.

##### 3.1.4.7.1.2

#### **IWorkManagementServiceApplication\_GetExchangeSyncInfo\_OutputMessage**

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

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

### 3.1.4.7.2 Elements

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

Element	Description
<b>GetExchangeSyncInfo</b>	The input data for the <b>GetExchangeSyncInfo</b> WSDL operation.
<b>GetExchangeSyncInfoResponse</b>	The result data for the <b>GetExchangeSyncInfo</b> WSDL operation.

#### 3.1.4.7.2.1 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>
```

#### 3.1.4.7.2.2 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.

### 3.1.4.7.3 Complex Types

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

Complex type	Description
<b>ExchangeUserSyncState</b>	Information about the external server synchronization status for a user.

#### 3.1.4.7.3.1 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 (3) 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

### 3.1.4.7.4 Simple Types

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

Simple type	Description
<b>ExchangeSyncResult</b>	Information about a task (3) server synchronization operation.

#### 3.1.4.7.4.1 ExchangeSyncResult

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

Results about a task (3) 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.

Value	Meaning
UnknownError	There was an unknown error during the synchronization.
CouldNotConnectToExchange	The operation could not connect with the external task (3) 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.

### 3.1.4.7.5 Attributes

None.

### 3.1.4.7.6 Groups

None.

### 3.1.4.7.7 Attribute Groups

None.

### 3.1.4.8 OptIntoExchangeSync

Triggers the server to turn on synchronization with a task (3) server for a user.

```
<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.

#### 3.1.4.8.1 Messages

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

Message	Description
<b>IWorkManagementServiceApplication_OptIntoExchangeSync_InputMessage</b>	The request WSDL message for the <b>OptIntoExchangeSync</b> WSDL operation.
<b>IWorkManagementServiceApplication_OptIntoExchangeSync_OutputMessage</b>	The response WSDL



Message	Description
age	message for the <b>OptIntoExchangeSync</b> WSDL operation.

### 3.1.4.8.1.1

#### **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.

### 3.1.4.8.1.2

#### **IWorkManagementServiceApplication\_OptIntoExchangeSync\_OutputMessage**

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

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

### 3.1.4.8.2 Elements

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

Element	Description
<b>OptIntoExchangeSync</b>	The input data for the <b>OptIntoExchangeSync</b> WSDL operation.
<b>OptIntoExchangeSyncResponse</b>	The result data for the <b>OptIntoExchangeSync</b> WSDL operation.

#### 3.1.4.8.2.1 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>
```

#### 3.1.4.8.2.2 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.

### 3.1.4.8.3 Complex Types

None.

### 3.1.4.8.4 Simple Types

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

Simple type	Description
<b>ExchangeOptInResult</b>	Information about whether or not the user was successfully set up to synchronize tasks (3).

#### 3.1.4.8.4.1 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 (3).

```

<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:restriction>
</xs:simpleType>

```

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

Value	Meaning
NoValue	No value.

Value	Meaning
Success	The operation succeeded.
UnknownError	There was an unknown error when enabling synchronization.
CouldNotConnectToExchange	The operation could not connect with the external task (3) 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 (3).
UserExchangeOperationPending	The operation to enable synchronization is already in process.
UnsupportedExchangeVersion	The task (3) server is not compatible with the synchronization operation.
MissingEmailAddress	The user's email address could not be found in the <b>User Profile Service</b> .
ExchangeWebServiceClientMissing	The component required to connect to the external task (3) server is not available.
UnsupportedSharePointConfiguration	The local server is not configured correctly for synchronization with an external task (3) server.
InvalidOrUnauthorizedUser	The user specified is not valid or unauthorized on the external task (3) server.

### 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 OptOutOfExchangeSync

Turns off task synchronization with a task (3) server for a user.

```
<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/OptOutOfExchangeSyncResponse"
    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.

### 3.1.4.9.1 Messages

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

Message	Description
<b>IWorkManagementServiceApplication_OptOutOfExchangeSync_InputMessage</b>	The request WSDL message for the <b>OptOutOfExchangeSync</b> WSDL operation.
<b>IWorkManagementServiceApplication_OptOutOfExchangeSync_OutputMessage</b>	The response WSDL message for the <b>OptOutOfExchangeSync</b> WSDL operation.

#### 3.1.4.9.1.1

### **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.

#### 3.1.4.9.1.2

### **IWorkManagementServiceApplication\_OptOutOfExchangeSync\_OutputMessage**

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

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

### 3.1.4.9.2 Elements

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

Element	Description
<b>OptOutOfExchangeSync</b>	The input data for the <b>OptOutOfExchangeSync</b> WSDL operation.
<b>OptOutOfExchangeSyncResponse</b>	The result data for the <b>OptOutOfExchangeSync</b> WSDL operation.

#### 3.1.4.9.2.1 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>
```

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

### 3.1.4.9.2.2 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.

### 3.1.4.9.3 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.

### 3.1.4.10 BeginRelocateTaskPropagation

Triggers the server to move a task (3) in an external task (3) server to a target location on that server.

```
<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"
  </wsdl:output>
</wsdl:operation>
```

```

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.

### 3.1.4.10.1 Messages

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

Message	Description
<b>IWorkManagementServiceApplication_BeginRelocateTaskPropagation_InputMessage</b>	The request WSDL message for the <b>BeginRelocateTaskPropagation</b> WSDL operation.
<b>IWorkManagementServiceApplication_BeginRelocateTaskPropagation_OutputMessage</b>	The response WSDL message for the <b>BeginRelocateTaskPropagation</b> WSDL operation.

#### 3.1.4.10.1.1

### **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.

#### 3.1.4.10.1.2

### **IWorkManagementServiceApplication\_BeginRelocateTaskPropagation\_OutputMessage**

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

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

### 3.1.4.10.2 Elements

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

Element	Description
<b>BeginRelocateTaskPropagation</b>	The input data for the <b>BeginRelocateTaskPropagation</b> WSDL operation.
<b>BeginRelocateTaskPropagationResponse</b>	The result data for the <b>BeginRelocateTaskPropagation</b>

Element	Description
	WSDL operation.

### 3.1.4.10.2.1 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 (3) to be moved.

**mappedKey:** The unique identifier of the target location in the external server to move the task (3) to.

### 3.1.4.10.2.2 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>
```

### 3.1.4.10.3 Complex Types

None.

### 3.1.4.10.4 Simple Types

None.

### 3.1.4.10.5 Attributes

None.

### 3.1.4.10.6 Groups

None.

### **3.1.4.10.7 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:32843/44058d0990524belb0f66a890da50007/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+AGsU9AYYqsoJ3TsiUdALBVW9C7hNQBgx0loCVV2H23ckHi1970VEyOmYAIIVxtMFL
jQb9TtDckncZDrN8CuL/Pc5LIKhh9zuFIjdbJiLqnYQBAYxHyLphEcW6MSRaTX62EoGk/pxPzZAhUocVOzv7aU=</Mod
ulus>
                  <Exponent>AQAB</Exponent>
                </RSAKeyValue>
              </KeyValue>
            </KeyInfo>
          </saml:Subject>
        </saml:AttributeStatement>
      </saml:Assertion>
    </o:Timestamp>
  </s:Header>
  <s:Body>
  </s:Body>
</s:Envelope>
```

```

    </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-ae9-1103092e5303</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/lxfZPgcrc6udlpRKezroqo017Nf+MzTSypfUe5ZwL6qhIuDmFE+LcjpVavwnVbE6ubBWPn9hM+Rv66vfCn
FNh/vM2tNQhV7hTqE29C3J6rNVBKlM4QFyCyZuH+GdED49S/55XDA5wmTSCgAz/t8swIM80vmHyMBtA4v0pKs2faXeN1F
N1npDaQvwNNnt0qYJv7Y0Nj3Ri8btJQ58BKX+HCztHZKqtQpBjoTH7XLbl1Wsaplc6JdCo1Sghz8BQEK8U9QLx9vWVavMK
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
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</saml:Attribute>
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AttributeNamespace="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
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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"&gt;&lt;saml:AttributeValue&gt;
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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"&gt;&lt;saml:AttributeValue&gt;
;Username&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;saml:Attribute
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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"&gt;&lt;saml:AttributeValue&gt;
;0#.w|username&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt;
;windows&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt;
;True&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt;
;0#.w|username&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt;
;95cc4a80-a978-4077-ae9-

```



```

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ertificate>
  </X509Data>
  </KeyInfo>
</ds:Signature>
</saml:Assertion>
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  <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+VsmvyoEgobVTSTOScwhI6TYOtquAlBb3cxN9QFCw+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/BeginExchangeSync</
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/44058d0990524belb0f66a890da50007/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>2011-11-29T00:49:38.851Z</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-
e3b902ael891" 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+Z2C7lsFrEtj0AvliOKUE33xhSHB91111jvDorzNIANA2BUbEQFZGmfGbVzbKdG0o9
un978aRNazZyit53GYaeZo5qPMvJkrTTbUjcJ77Rf/4osXxiEcCo0IVrf4m6qOy0laOKAM3KZadAZD+v/psQA9E=</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="primarygroupid"
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-ae9-1103092e5303</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,BwACO6nxCcbSMU1RgxAgTUmvdqvyo70g8KKPdguhZCtNTEtD
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RHsVXUSmMnfP5zqE9hbBjt7JhCX+EZuDd/fWjzkXzrrf3rB3JMKRrXZOCyH70BFmIBRNvYnnYdiWNUHHCmOlggnAwoFjGB
Fiy+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-
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7338907;8084865;2115484;1921745;6598066;7485662;2738467;7513462;6835656;7957251;3240403;31213
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81163;4552137;3168601;3168602;6129242;6071320;8227456;5518445;6835659;7781164;5124256;5869759
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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
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```



```

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764017;7316492;6634535;6527740;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:AttributeValu
e>
</saml:Attribute>
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AttributeNamespace="http://schemas.xmlsoap.org/ws/2009/09/identity/claims">
<saml:AttributeValue>&lt;Actor&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt
;user&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt
;Username&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt
;0#.w|username&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt
;windows&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt
;True&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt
;0#.w|username&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;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"&gt;&lt;saml:AttributeValue&gt
;95cc4a80-a978-4077-ae9-
1103092e5303&lt;/saml:AttributeValue&gt;&lt;/saml:Attribute&gt;&lt;/Actor&gt;</saml:Attribute
Value>
</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+Z2C7lsFrEtj0AvliOKUE33xhSHB91111jvDorzNIANA2BUBEQFZGmfGbVzbKdG0o9
un978aRNAzZyit53GYaeZo5qPMvJkrTTbUjcJ77Rf/4osXxiEcCo0IVrf4m6qOy0laOKAM3KZadAZD+v/psQA9E=</Mod
ulus>
<Exponent>AQAB</Exponent>

```



```

<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/kfqhhG9VBH6U2lrxadcfiu5vQj1gt1GVKhhijYhbJMgcZKoKf/BGDRyLS
3ZCmAQWDBfg+TTX4E/BLiz/XPRC0Ixnad6Mws1e+FEtOnPHG9swQjavgn03lAgVERKMfREY1ADS72L960v7gEJ0bd76dc
=</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/BeginExchangeSyncRe
sponse</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"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:tns2="http://tempuri.org/"
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://tempuri.org/" />
      <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/" />
      <xs:import
namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement" />
    </xs:schema>
  </wsdl:types>
  <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_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_BeginExchangeSyncForNextUsers_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginExchangeSyncForNextUsers" />
  </wsdl:message>
  <wsdl:message
name="IWorkManagementServiceApplication_BeginExchangeSyncForNextUsers_OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginExchangeSyncForNextUsersResponse" />
  </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: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_BeginCreateTaskPropagation_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginCreateTaskPropagation" />
  </wsdl:message>
```

```

    </wsdl:message>
    <wsdl:message
name="IWorkManagementServiceApplication_BeginCreateTaskPropagation_OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginCreateTaskPropagatationResponse"/>
    </wsdl:message>
    <wsdl:message
name="IWorkManagementServiceApplication_BeginUpdateTaskPropagation_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginUpdateTaskPropagatation"/>
    </wsdl:message>
    <wsdl:message
name="IWorkManagementServiceApplication_BeginUpdateTaskPropagation_OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginUpdateTaskPropagatationResponse"/>
    </wsdl:message>
    <wsdl:message
name="IWorkManagementServiceApplication_BeginDeleteTaskPropagation_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginDeleteTaskPropagatation"/>
    </wsdl:message>
    <wsdl:message
name="IWorkManagementServiceApplication_BeginDeleteTaskPropagation_OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginDeleteTaskPropagatationResponse"/>
    </wsdl:message>
    <wsdl:message
name="IWorkManagementServiceApplication_BeginRelocateTaskPropagation_InputMessage">
    <wsdl:part name="parameters" element="tns2:BeginRelocateTaskPropagatation"/>
    </wsdl:message>
    <wsdl:message
name="IWorkManagementServiceApplication_BeginRelocateTaskPropagation_OutputMessage">
    <wsdl:part name="parameters" element="tns2:BeginRelocateTaskPropagatationResponse"/>
    </wsdl:message>
    <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="BeginExchangeSyncForNextUsers">
    <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSyncForNextUse
rs"
message="tns2:IWorkManagementServiceApplication_BeginExchangeSyncForNextUsers_InputMessage"/>
    <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSyncForNextUse
rsResponse"
message="tns2:IWorkManagementServiceApplication_BeginExchangeSyncForNextUsers_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/OptOutOfExchangeSyncResponse"
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/BeginCreateTaskPropagationResponse"
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/BeginUpdateTaskPropagationResponse"
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/BeginDeleteTaskPropagationResponse"
message="tns2:IWorkManagementServiceApplication_BeginDeleteTaskPropagation_OutputMessage"/>
        </wsdl:operation>
        <wsdl:operation name="BeginRelocateTaskPropagation">
        <wsdl:input
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginRelocateTaskPropagation"
message="tns2:IWorkManagementServiceApplication_BeginRelocateTaskPropagation_InputMessage"/>
        <wsdl:output
wsaw:Action="http://tempuri.org/IWorkManagementServiceApplication/BeginRelocateTaskPropagationResponse"
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="BeginExchangeSyncForNextUsers">
    <soap:operation
soapAction="http://tempuri.org/IWorkManagementServiceApplication/BeginExchangeSyncForNextUser
s" 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:definitions>

```

## 7 Appendix B: Full XML Schema

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

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

### 7.1

#### <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.WorkManagement> Schema

```
<?xml version="1.0"?>
<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.WorkManagement"
  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: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"?>
<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: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"?>
<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="BeginExchangeSyncForNextUsers">
    <xs:complexType>
      <xs:sequence/>
    </xs:complexType>
  </xs:element>
  <xs:element name="BeginExchangeSyncForNextUsersResponse">
    <xs:complexType>
      <xs:sequence>
        <xs:element minOccurs="0" name="BeginExchangeSyncForNextUsersResult" nillable="true"
type="xs:dateTime"/>
      </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>
<xs:element name="BeginUpdateTaskPropagation">
  <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>
<xs:element name="BeginUpdateTaskPropagationResponse">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>

```

```

    </xs:complexType>
  </xs:element>
  <xs:element name="BeginDeleteTaskPropagation">
    <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>
  <xs:element name="BeginDeleteTaskPropagationResponse">
    <xs:complexType>
      <xs:sequence/>
    </xs:complexType>
  </xs:element>
  <xs:element name="BeginRelocateTaskPropagation">
    <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>
  <xs:element name="BeginRelocateTaskPropagationResponse">
    <xs:complexType>
      <xs:sequence/>
    </xs:complexType>
  </xs:element>
</xs:schema>

```

## 8 Appendix C: Product Behavior

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

- Microsoft® SharePoint® Server 2013

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

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



## 9 Change Tracking

This section identifies changes that were made to the [MS-WMS] protocol document between the September 2012 and October 2012 releases. 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.
- An extensive rewrite, addition, or deletion of major portions of content.
- The removal of a document from the documentation set.
- Changes made for template compliance.

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 language and 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 or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

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.
- New content added for template compliance.
- Content updated for template compliance.
- Content removed for template compliance.
- 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 [protocol@microsoft.com](mailto:protocol@microsoft.com).

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
<a href="#">1 Introduction</a>	Updated all preliminary information in the document.	Y	Content updated.
<a href="#">2.1 Transport</a>	Replaced "MAY" with "SHOULD".	N	Content updated.
<a href="#">2.2.5.1 char</a>	Added sentence to indicate that this simple type is not used.	N	New content added.
<a href="#">2.2.5.2 duration</a>	Added sentence to indicate that this simple type is not used.	N	New content added.
<a href="#">2.2.5.3 guid</a>	Added one sentence for type guid.	N	New content added.
<a href="#">3.1.4.1.3.1 CreateRefreshJobResult</a>	Updated description of CreatedJob element.	N	Content updated.
<a href="#">5.1 Security Considerations for Implementers</a>	Updated description for clarity.	N	Content updated.

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