

# [MS-UPWCFWS]: User Profile Property Service Application Web Service Protocol Specification

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## Revision Summary

Date	Revision History	Revision Class	Comments
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# 1 Introduction

This document specifies the User Profile Property Service Application Web Service Protocol, which is built upon the Windows Communication Foundation and enables a protocol client to retrieve user profile application configuration information that is located in a user profile store on a site.

## 1.1 Glossary

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

- Active Directory**
- Augmented Backus-Naur Form (ABNF)**
- base64**
- directory service (DS)**
- Domain Name System (DNS)**
- GUID**
- Hypertext Transfer Protocol (HTTP)**
- Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**
- language code identifier (LCID)**
- LDAP**
- service**
- Transmission Control Protocol (TCP)**
- user object**
- XML**

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

- application server**
- Business Data Connectivity (BDC)**
- collation**
- data connection**
- endpoint**
- group**
- partition**
- provisioned**
- schema version**
- security principal**
- Simple Object Access Protocol (SOAP)**
- SOAP action**
- SOAP body**
- SOAP fault**
- social data**
- subscriber**
- Uniform Resource Identifier (URI)**
- Uniform Resource Locator (URL)**
- user profile**
- User Profile Service**
- user profile store**
- Web Services Description Language (WSDL)**
- WSDL message**
- WSDL operation**

The following terms are specific to this document:

**Identity Lifecycle Management Service:** A set of identity management services that enables protocol clients to manage digital identities from creation through retirement. Services include identity synchronization, certificate and password management, and user provisioning.

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

## 1.2 References

### 1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact [dochelp@microsoft.com](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-DTYP] Microsoft Corporation, "[Windows Data Types](#)".

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

[MS-UIESP] Microsoft Corporation, "[User Profile Import and Export Stored Procedures Protocol Specification](#)"

[MS-WSSFO2] Microsoft Corporation, "[Windows SharePoint Services \(WSS\): File Operations Database Communications Version 2 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>

[RFC5234] Crocker, D., Ed., and Overell, P., "Augmented BNF for Syntax Specifications: ABNF", STD 68, RFC 5234, January 2008, <http://www.rfc-editor.org/rfc/rfc5234.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>

[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>

[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>

[XML] World Wide Web Consortium, "Extensible Markup Language (XML) 1.0 (Fourth Edition)", W3C Recommendation, August 2006, <http://www.w3.org/TR/2006/REC-xml-20060816/>

[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-SPTWS] Microsoft Corporation, "[Service Platform Topology Web Service Protocol Specification](#)"

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

[RFC2822] Resnick, P., Ed., "Internet Message Format", STD 11, RFC 2822, April 2001, <http://www.ietf.org/rfc/rfc2822.txt>

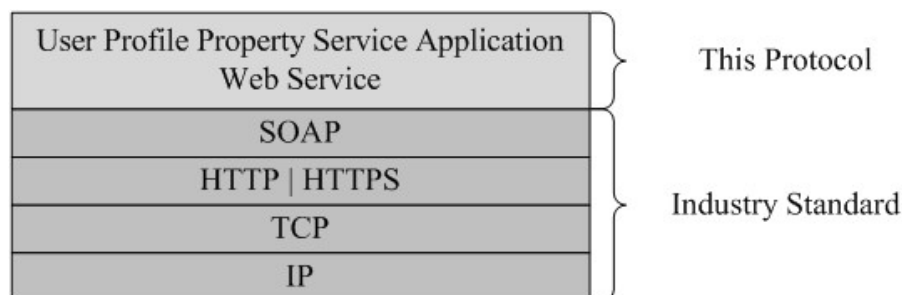
### 1.3 Protocol Overview (Synopsis)

This protocol enables protocol clients to interact with the **User Profile Service** running on the middle-tier **application server**. The protocol client obtains information required to establish a connection, retrieves information about the permissions associated with the protocol client, and retrieves **URLs** to the sites that offer the User Profile Service. The protocol does not require that the protocol client had previous interaction with this **service**, nor does it require state information from the protocol client. The protocol requires that the protocol client obtain the URL of the service **endpoint (4)** of this protocol server and authenticate to use this service.

### 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**

### 1.5 Prerequisites/Preconditions

This protocol operates against a protocol server that exposes one or more endpoint (4) **URIs** that are known by protocol clients. The endpoint (4) URI of the protocol server and the transport that is

used by the protocol server are either known by the protocol client or obtained by using the discovery mechanism that is described in [\[MS-SPTWS\]](#).

The protocol client obtains the requisite ApplicationClassId and ApplicationVersion values and the endpoint (4) URI of the protocol server that provides the discovery mechanism, as described in [\[MS-SPTWS\]](#), by means that are independent of either protocol.

This protocol requires the protocol client to have appropriate permission to call the methods on the protocol server.

The protocol client implements the token-based security mechanisms that are required by the protocol server and related security protocols, as described in [\[MS-SPSTWS\]](#).

## 1.6 Applicability Statement

This protocol retrieves basic connectivity and configuration information for the user profile middle-tier service. It is the first interaction between a protocol client and this site service, and is required before the protocol client retrieves any **user profile** information.

## 1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol can be implemented by using transports that support sending SOAP messages, as specified in section [2.1](#).
- **Protocol Versions:** This protocol is not versioned.
- **Capability Negotiation:** This protocol does not support version negotiation.

## 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 MAY 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 know 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 used by this protocol. The syntax of the definitions uses the XML Schema as specified in [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#), and in the **Web Services Description Language (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
tns3	<a href="http://schemas.datacontract.org/2004/07/Microsoft.SharePoint.Administration">http://schemas.datacontract.org/2004/07/Microsoft.SharePoint.Administration</a>	
tns6	<a href="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Utilities">http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Utilities</a>	
tns4	<a href="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.UserProfiles">http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.UserProfiles</a>	
wsp	<a href="http://www.w3.org/ns/ws-policy">http://www.w3.org/ns/ws-policy</a>	
ser	<a href="http://schemas.microsoft.com/2003/10/Serialization/">http://schemas.microsoft.com/2003/10/Serialization/</a>	
tns7	<a href="http://tempuri.org/Imports">http://tempuri.org/Imports</a>	
wsu	<a href="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd</a>	
tns5	<a href="http://schemas.microsoft.com/2003/10/Serialization/Arrays">http://schemas.microsoft.com/2003/10/Serialization/Arrays</a>	
msc	<a href="http://schemas.microsoft.com/ws/2005/12/wsd/contract">http://schemas.microsoft.com/ws/2005/12/wsd/contract</a>	

Prefix	Namespace URI	Reference
xsd	http://www.w3.org/2001/XMLSchema	<a href="#">[XMLSCHEMA1]</a> <a href="#">[XMLSCHEMA2]</a>
soapenc	http://schemas.xmlsoap.org/soap/encoding/	
wsx	http://schemas.xmlsoap.org/ws/2004/09/mex	
wsap	http://schemas.xmlsoap.org/ws/2004/08/addressing/policy	
wsaw	http://www.w3.org/2006/05/addressing/wSDL	
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	<a href="#">[SOAP1.2/1]</a> <a href="#">[SOAP1.2/2]</a>
tns	http://tempuri.org/	
wSDL	http://schemas.xmlsoap.org/wsdl/	<a href="#">[WSDL]</a>
wsa10	http://www.w3.org/2005/08/addressing	
tns1	http://schemas.microsoft.com/2003/10/Serialization/	
xs	http://www.w3.org/2001/XMLSchema	<a href="#">[XMLSCHEMA1]</a> <a href="#">[XMLSCHEMA2]</a>
wsa	http://schemas.xmlsoap.org/ws/2004/08/addressing	
tns2	http://Microsoft/Office/Server/UserProfiles	
wsam	http://www.w3.org/2007/05/addressing/metadata	
soap	http://schemas.xmlsoap.org/wsdl/soap/	<a href="#">[SOAP1.1]</a>

## 2.2.2 Messages

None.

## 2.2.3 Elements

None.

## 2.2.4 Complex Types

None.

## 2.2.5 Simple Types

None.

## 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.

## **2.3 Directory Service Schema Elements**

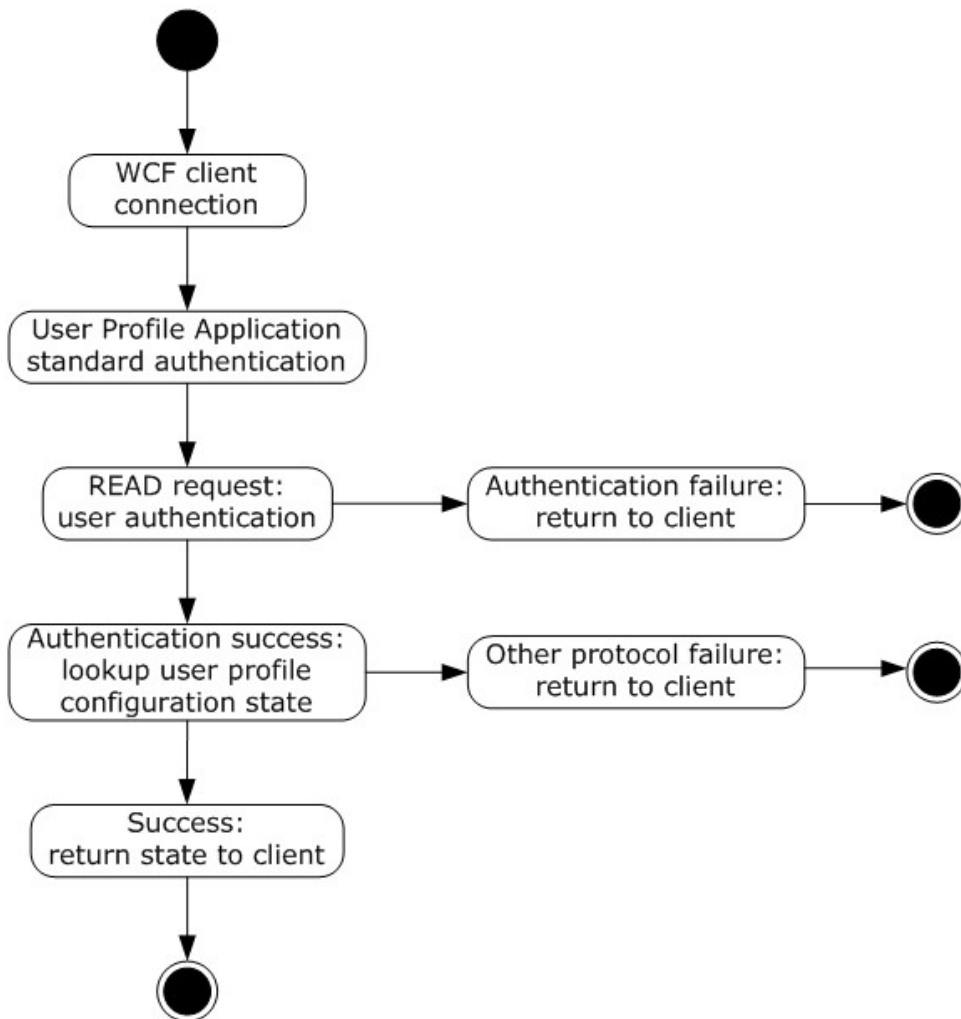
None.

### 3 Protocol Details

This is a server-side protocol. 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 simply exposes the current configuration state of the User Profile Service to all authenticated **user objects**. There are no dependencies between the information sent in one client-server request/response pair and the next pair; all dependencies are based on the current state of the application service. They are specified in the following figure.



**Figure 2: State Dependencies of the application service**

The User Profile Service uses authentication mechanisms that are standard for Web Services and SOAP.

### 3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

This protocol enables protocol clients to query the latest configuration state information for the User Profile Service.

### 3.1.2 Timers

None.

### 3.1.3 Initialization

None.

### 3.1.4 Message Processing Events and Sequencing Rules

This protocol supports only the **GetProfileProperties** operation. This **WSDL operation** is stateless.

This specification includes the following WSDL operations:

WSDL Operation	Description
GetProfileProperties	This WSDL operation retrieves the configuration state of the User Profile Service.

#### 3.1.4.1 GetProfileProperties

This WSDL operation retrieves the configuration state of the User Profile Service.

```
<wsdl:operation name="GetProfileProperties">
  <wsdl:input wsam:Action="http://Microsoft.Office.Server.UserProfiles/GetProfileProperties"
    message="tns:IProfilePropertyService_GetProfileProperties_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/IProfilePropertyService/GetProfilePropertiesResponse"
    message="tns:IProfilePropertyService_GetProfileProperties_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an **IProfilePropertyService\_GetProfileProperties\_InputMessage** request message and the protocol server responds with an **IProfilePropertyService\_GetProfileProperties\_OutputMessage** response message containing the configuration state information associated with the application service.

#### 3.1.4.1.1 Messages

##### 3.1.4.1.1.1 IProfilePropertyService\_GetProfileProperties\_InputMessage

The requested WSDL message for the **GetProfileProperties** WSDL operation.

The **SOAP action** value is:

`http://Microsoft.Office.Server.UserProfiles/GetProfileProperties`

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

#### 3.1.4.1.1.2 IProfilePropertyService\_GetProfileProperties\_OutputMessage

The response WSDL message for the **GetProfileProperties** method.

The SOAP action value is:

`http://tempuri.org/IProfilePropertyService/GetProfilePropertiesResponse`

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

#### 3.1.4.1.2 Elements

##### 3.1.4.1.2.1 GetProfileProperties

The input data for the **GetProfileProperties** WSDL operation.

```
<xs:element name="GetProfileProperties">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

##### 3.1.4.1.2.2 GetProfilePropertiesResponse

The result data for the **GetProfileProperties** WSDL operation.

```
<xs:element name="GetProfilePropertiesResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetProfilePropertiesResult" nillable="true"
        xmlns:q1="http://Microsoft/Office/Server/UserProfiles" type="q1:ProfilePropertyData"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

**GetProfilePropertiesResult:** A **ProfilePropertyData** element that contains the configuration state information. However, if connection failures, authentication failures, or other transport errors occurred before the request reached the corresponding SOAP service endpoint (4), then the element will not contain the **ProfilePropertyData** element.

### 3.1.4.1.3 Complex Types

#### 3.1.4.1.3.1 ProfilePropertyData (from namespace

<http://Microsoft/Office/Server/UserProfiles>)

This complex type is the main payload that the **GetProfileProperties** operation sends to the protocol client. It exposes the information required for a SOAP protocol client to connect to a User Profile Service that is currently running.

The User Profile Service configuration state contains optional elements, so the protocol client **MUST** plan for the possibility that elements are not present.

```
<xs:complexType name="ProfilePropertyData">
  <xs:sequence>
    <xs:element minOccurs="0" name="AppID" type="ser:guid"/>
    <xs:element minOccurs="0" name="AppStatus"
      xmlns:q1="http://schemas.datacontract.org/2004/07/Microsoft.SharePoint.Administration"
      type="q1:SPObjectStatus"/>
    <xs:element minOccurs="0" name="ChangeJobSchedule" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="ILMMachineName" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="IgnoreIsActiveFlag" type="xs:boolean"/>
    <xs:element minOccurs="0" name="IsClaimProvider" nillable="true" type="xs:boolean"/>
    <xs:element minOccurs="0" name="IsIlmFullyConfigured" type="xs:boolean"/>
    <xs:element minOccurs="0" name="IsInitialDataPopulated" type="xs:boolean"/>
    <xs:element minOccurs="0" name="IsUpscaleILMUsed" type="xs:boolean"/>
    <xs:element minOccurs="0" name="IsUsersOnlyILMImport" type="xs:boolean"/>
    <xs:element minOccurs="0" name="NextSynchronizationStage"
      xmlns:q2="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.UserProfiles"
      type="q2:SynchronizationStage"/>
    <xs:element minOccurs="0" name="PartitionIDs" nillable="true"
      xmlns:q3="http://schemas.microsoft.com/2003/10/Serialization/Arrays" type="q3:ArrayOfguid"/>
    <xs:element minOccurs="0" name="PartitionOptions"
      xmlns:q4="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Utilities"
      type="q4:SPPartitionOptions"/>
    <xs:element minOccurs="0" name="PerfmonInstanceHandle" type="xs:int"/>
    <xs:element minOccurs="0" name="ProfileDatabaseBackwardsCompatibleSchemaVersion"
      nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="ProfileDatabaseConnectionString" nillable="true"
      type="xs:string"/>
    <xs:element minOccurs="0" name="ProfileDatabaseSchemaVersion" nillable="true"
      type="xs:string"/>
    <xs:element minOccurs="0" name="ProfileStoreCollationId" type="xs:int"/>
    <xs:element minOccurs="0" name="ProfileStoreLanguage" type="xs:int"/>
    <xs:element minOccurs="0" name="SerializedAdministratorAcl" nillable="true"
      type="xs:string"/>
    <xs:element minOccurs="0" name="SkipBDCImport" type="xs:boolean"/>
    <xs:element minOccurs="0" name="SocialDatabaseBackwardsCompatibleSchemaVersion"
      nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="SocialDatabaseConnectionString" nillable="true"
      type="xs:string"/>
    <xs:element minOccurs="0" name="SocialDatabaseSchemaVersion" nillable="true"
      type="xs:string"/>
    <xs:element minOccurs="0" name="SyncServiceInstanceId" type="ser:guid"/>
    <xs:element minOccurs="0" name="UseOnlyPreferredDomainControllers" type="xs:boolean"/>
  </xs:sequence>
</xs:complexType>
```

**AppID:** The unique identifier of the User Profile Service that is currently running.

**AppStatus:** An **SObjectStatus** enumeration that specifies the current state of the User Profile Service specified by the **AppID** element.

**ChangeJobSchedule:** A **string** that specifies the schedule for the automated processing of tasks for the User Profile Service associated with the specified **AppID** element. The **string** MUST be formatted as specified by the following **ABNF** [\[RFC5234\]](#).

```
ChangeJobSchedule = SecondRecurrence / MinuteRecurrence / HourlyRecurrence / DailyRecurrence /
WeeklyRecurrence / MonthlyRecurrence / YearlyRecurrence
SecondRecurrence = "every " NONZEROSECONDORMINUTE " seconds"
MinuteRecurrence = "every " NONZEROSECONDORMINUTE " minutes " [SecondOrMinuteInstance]
HourlyRecurrence = "hourly " SecondOrMinuteInstance
DailyRecurrence = "daily " TimeInstance
WeeklyRecurrence = "weekly " DayInstance
MonthlyRecurrence = "monthly " (DateInstance / OrdinalDayInstance)
YearlyRecurrence = "yearly " MonthInstance
MonthInstance = ("at " MONTH " " DATE " " HourInstance) / ("between " MONTH " " DATE " "
HourInstance " and " MONTH " " DATE " " HourInstance)
DateInstance = ("at " DATE " " HourInstance) / ("between " DATE " " HourInstance " and " DATE
" " HourInstance)
DayInstance = ("at " DAY " " HourInstance) / ("between " DAY " " HourInstance " and " DAY " "
HourInstance)
OrdinalDayInstance = "at " ORDINAL " " DAY " " HourInstance
TimeInstance = ("at " HourInstance) / ("between " HourInstance " and " HourInstance)
SecondOrMinuteInstance = ("at " SECONDORMINUTE) / ("between " SECONDORMINUTE " and "
SECONDORMINUTE)
HourInstance = HOUR ":" SECONDORMINUTE [ ":" SECONDORMINUTE ]
MONTH = "jan" / "feb" / "mar" / "apr" / "may" / "jun" / "jul" / "aug" / "sep" / "oct" / "nov"
/ "dec"
DATE = ( [ "1" / "2" ] NONZERODIGIT ) / "10" / "20" / "30" / "31" ; 1-31
DAY = "sun" / "mon" / "tue" / "wed" / "thu" / "fri" / "sat" / "su" / "mo" / "tu" / "we" /
"th" / "fr" / "sa"
ORDINAL = "first" / "second" / "third" / "fourth" / "last"
HOUR = ( [ "1" ] DIGIT ) / "20" / "21" / "22" / "23" ; 0-23
SECONDORMINUTE = "0" / NONZEROSECONDORMINUTE ; 0-59
NONZEROSECONDORMINUTE = NONZERODIGIT / ( ( "1" / "2" / "3" / "4" / "5" ) DIGIT ) ; 1-59
NONZERODIGIT = "1" / "2" / "3" / "4" / "5" / "6" / "7" / "8" / "9" ; 1-9
DIGIT = "0" / NONZERODIGIT ; 0-9
```

**ILMMachineName:** The name of the computer in standard **DNS** format that runs the **Identity Lifecycle Management Service** associated with this User Profile Service.

**IgnoreIsActiveFlag:** Specifies whether the current authenticated user object that invoked this request for the **GetProfileProperties** operation is active in this User Profile Service.

**IsClaimProvider:** The value MAY be true, false, or NULL. The protocol client MUST ignore this value.

**IsIlmFullyConfigured:** Specifies whether the computer, specified by the **ILMMachineName** element, is completely configured to synchronize user profile information with this User Profile Service.

**IsInitialDataPopulated:** Specifies whether user profile information was imported successfully at least once, which initially populates user profile information in the **user profile store**. For more details about synchronization, see [\[MS-UIPESP\]](#).

**IsUpscaleILMUsed:** Specifies whether the Identity Lifecycle Management Service is managed externally to the site. If this value is true, the elements **ILMMachineName**,



**IsIlmFullyConfigured**, **IsUsersOnlyILMImport**, **NextSynchronizationStage**, **SkipBDCImport**, and **SyncServiceInstanceId** are not applicable and MUST be ignored.

**IsUsersOnlyILMImport**: Specifies whether the user profile synchronization process imports only user objects for the Identity Lifecycle Management Service, or whether it also imports **groups (2)**.

**NextSynchronizationStage**: The current state of the process that synchronizes the user profile store with external sources, as specified in section [3.1.4.1.4.3](#). For more details about synchronization, see [MS-UIESP].

**PartitionIDs**: The list of **partitions** that were **provisioned** for this User Profile Service.

**PartitionOptions**: Specifies whether partitioning is supported, as specified by the **SPPartitionOptions** enumeration.

**PerfmonInstanceHandle**: MUST be set to -1.

**ProfileDatabaseBackwardsCompatibleSchemaVersion**: The earliest **schema version** with which the schema version of the user profile store is backward-compatible. The current schema is not considered to be compatible with any database schema with a version number lower than this version number. This version number appears in the version number format specified in the description of **ProfileDatabaseSchemaVersion**.

**ProfileDatabaseConnectionString**: The **data connection (2)** string that is associated with the user profile store.

**ProfileDatabaseSchemaVersion**: The current schema version number of the user profile store. The version number appears in the format major.minor[.build[.revision]], where major, minor, build, and revision are non-negative integers. 4.0 and 12.0.47.0 are examples of valid version numbers. When the database schema is updated, this version number is increased. For the purpose of comparing version numbers, the integer fields appear in decreasing order of significance.

**ProfileStoreCollationId**: The **collation** identifier of the user profile store.

**ProfileStoreLanguage**: **LCID** of the language of the user profile store.

**SerializedAdministratorAcl**: A string that specifies the access control list that specifies the user objects that have administrative permissions associated with this user profile application. The protocol client uses this information to enable or disable specific administrator-only interactions with the User Profile Service. This field is optional because verification of authentication occurs at the service endpoint (4). This string MUST be well-formed **XML**, as specified by [\[XML\]](#) section 2. The root node of the XML MUST be an "acl" element. The "acl" element MUST specify a **version** attribute whose value MUST be the string ([\[XMLSCHEMA2\]](#) section 3.2.1) "1.0". The "acl" element MUST contain one "ace" child element for each access control entry appearing in the access control list. Each "ace" element MUST specify the following attributes:

- **identityName**: A string ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the login name of the security principal (2).
- **displayName**: A string ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the display name of the principal.
- **sid**: A string ([\[XMLSCHEMA2\]](#) section 3.2.1) that specifies the security identifier of the principal. This is the contents of the **SID** byte array specified in [\[MS-DTYP\]](#) section 2.4.2, represented as a string via **base64** encoding.

- **allowRights:** A string ([XMLSCHEMA2] section 3.2.1) that specifies a Windows SharePoint Services Rights Mask ([MS-WSSFO2] section 2.2.3.14) that specifies the permissions granted to the principal. This string MUST consist of the integer representation of the Windows SharePoint Services Rights Mask.
- **denyRights:** A string ([XMLSCHEMA2] section 3.2.1) that specifies a Windows SharePoint Services Rights Mask ([MS-WSSFO2] section 2.2.3.14) that specifies the permissions denied to the principal. This string MUST consist of the integer representation of the Windows SharePoint Services Rights Mask.

**SkipBDCImport:** Specifies whether the **Business Data Connectivity (BDC)** synchronization steps will be skipped during the process that synchronizes the user profile store with external sources. The BDC synchronization steps correspond to the **SynchronizationStage** enumeration values **BusinessDataCatalogImport**, **BusinessDataCatalogSync**, and **MossFinalExport** as specified in section 3.1.4.1.4.3. For more details about synchronization, see [MS-UIESP].

**SocialDatabaseBackwardsCompatibleSchemaVersion:** The earliest schema version with which the schema version of the social data within the user profile store is backward-compatible. The current schema is not considered to be compatible with any database schema with a version number lower than this version number. This version number appears in the version number format specified in the description of **ProfileDatabaseSchemaVersion**.

**SocialDatabaseConnectionString:** The data connection (2) string associated with the **social data** within the user profile store.

**SocialDatabaseSchemaVersion:** The schema version of the social data within the user profile store. When the schema is updated, this version number is increased. This version number appears in the version number format specified in the description of **ProfileDatabaseSchemaVersion**.

**SyncServiceInstanceId:** The identifier of the user profile store's profile synchronization service instance.

**UseOnlyPreferredDomainControllers:** Specifies whether communication will only take place with a specified domain controller, or whether communication MAY also take place with other domain controllers.

### 3.1.4.1.3.2 ArrayOfguid (from namespace <http://schemas.microsoft.com/2003/10/Serialization/Arrays>)

The **ArrayOfguid** element specifies a list of **GUIDs**.

```
<xs:complexType name="ArrayOfguid">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="guid" type="ser:guid"/>
  </xs:sequence>
</xs:complexType>
```

**guid:** A globally unique identifier as specified in section 3.1.4.1.4.1.

### 3.1.4.1.4 Simple Types

#### 3.1.4.1.4.1 guid (from namespace <http://schemas.microsoft.com/2003/10/Serialization/>)

A **GUID** that is 16 bytes long.

```

<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>

```

#### 3.1.4.1.4.2 SObjectStatus (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.SharePoint.Administration>)

This element specifies the processing status of the object or service.

```

<xs:simpleType name="SObjectStatus">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Online"/>
    <xs:enumeration value="Disabled"/>
    <xs:enumeration value="Offline"/>
    <xs:enumeration value="Unprovisioning"/>
    <xs:enumeration value="Provisioning"/>
    <xs:enumeration value="Upgrading"/>
  </xs:restriction>
</xs:simpleType>

```

The following table specifies the allowable values for SObjectStatus:

Value	Meaning
Online	The object or service is online and ready.
Disabled	The object or service is disabled and is not accessible.
Offline	The object or service is temporarily offline.
Unprovisioning	The object or service is being un-provisioned and will be disabled shortly.
Provisioning	The object or service is being provisioned and is temporarily unavailable.
Upgrading	The object or service is being upgraded and is temporarily offline.

#### 3.1.4.1.4.3 SynchronizationStage (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.UserProfiles>)

This element is an enumeration that specifies the steps of the processes that synchronize the contents of the user profile store with external sources such as **Active Directory**, **LDAP** and the BDC. The most current information from the various sources is synchronized. For more details on how the user profile synchronization processes perform the transition from one state to the other, see [\[MS-UPIESP\]](#).

```

<xs:simpleType name="SynchronizationStage">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="StartSynchronization"/>
    <xs:enumeration value="ActiveDirectoryImport"/>
  </xs:restriction>
</xs:simpleType>

```

```

<xs:enumeration value="LdapDirectoryImport"/>
<xs:enumeration value="MossImport"/>
<xs:enumeration value="ActiveDirectorySync"/>
<xs:enumeration value="LdapDirectorySync"/>
<xs:enumeration value="ActiveDirectoryResourceSync"/>
<xs:enumeration value="StartExportSteps"/>
<xs:enumeration value="MossExport"/>
<xs:enumeration value="MossSync"/>
<xs:enumeration value="LdapDirectoryExport"/>
<xs:enumeration value="ActiveDirectoryExport"/>
<xs:enumeration value="LdapDirectoryConfirmingImport"/>
<xs:enumeration value="ActiveDirectoryConfirmingImport"/>
<xs:enumeration value="BusinessDataCatalogImport"/>
<xs:enumeration value="BusinessDataCatalogSync"/>
<xs:enumeration value="MossFinalExport"/>
</xs:restriction>
</xs:simpleType>

```

The following table specifies the allowable values for SynchronizationStage:

Value	Meaning
None	No synchronization step.
StartSynchronization	The preliminary steps of the overall synchronization process.
ActiveDirectoryImport	The importing of information from the <b>directory service</b> .
LdapDirectoryImport	The importing of information from LDAP-connected directory services.
MossImport	The importing of information from the user profile store.
ActiveDirectorySync	Synchronization of the information imported from the directory service.
LdapDirectorySync	Synchronization of the information imported from LDAP-connected directory services.
ActiveDirectoryResourceSync	Synchronization of dependent information imported from the directory service.
StartExportSteps	The preliminary steps of the process that exports the information synchronized from the various data sources.
MossExport	The exportation of synchronized information to the user profile store.
MossSync	Synchronization of the information imported from the user profile store.
LdapDirectoryExport	The exportation of synchronized information to LDAP-connected directory services.
ActiveDirectoryExport	The exportation of synchronized information to the directory service.
LdapDirectoryConfirmingImport	The process of confirmation of exportation of information to LDAP-connected directory services.
ActiveDirectoryConfirmingImport	The process of confirmation of exportation of information to the directory service.

Value	Meaning
BusinessDataCatalogImport	The importing of information from the Business Data Connectivity (BDC).
BusinessDataCatalogSync	The synchronization of the information imported from the BDC.
MossFinalExport	The exportation of synchronized information to the user profile store, subsequent to the synchronization of information from the BDC.

#### 3.1.4.1.4.4 SPPartitionOptions (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Utilities>)

This element is an enumeration that specifies whether the User Profile Service was partitioned.

```
<xs:simpleType name="SPPartitionOptions">
  <xs:restriction base="xs:string">
    <xs:enumeration value="UnPartitioned"/>
    <xs:enumeration value="UniquePartitionPerSubscription"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for SPPartitionOptions:

Value	Meaning
UnPartitioned	Not Partitioned
UniquePartitionPerSubscription	Partitioned so that a unique partition exists for each <b>subscriber</b> , and each subscriber is isolated from the information or changes for another subscriber.

### 3.1.5 Timer Events

None.

### 3.1.6 Other Local Events

None.

## 3.2 Client Details

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

### 3.2.1 Abstract Data Model

None.

### 3.2.2 Timers

None.

### **3.2.3 Initialization**

None.

### **3.2.4 Message Processing Events and Sequencing Rules**

None.

### **3.2.5 Timer Events**

None.

### **3.2.6 Other Local Events**

None.

## 4 Protocol Examples

This section describes example scenarios for retrieving the current configuration state of the User Profile Service.

### 4.1 Retrieving User Profile Service Configuration State

The protocol client constructs the following **WSDL message** to retrieve the current configuration state of the User Profile Service.

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://Microsoft.Office.Server.UserProfiles/GetProfileProperties</a:Acti
on>
    <a:MessageID>urn:uuid:3eb21222-2b62-4735-a9ac-e673a6ee31df</a:MessageID>
    <a:ReplyTo>
      <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
    </a:ReplyTo>
    <a:To
s:mustUnderstand="1">net.tcp://mossperf64d2325:32845/59de0abe24804e18aeccdc292a7581f1/Profile
PropertyService.svc</a:To>
    <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-open.org/wss/2004/01/oasis-
200401-wss-wssecurity-secext-1.0.xsd">
      ...
    </o:Security>
  </s:Header>
  <s:Body>
    <GetProfileProperties xmlns="http://tempuri.org/"></GetProfileProperties>
  </s:Body>
</s:Envelope>
```

The protocol server sends the following response.

```
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:a="http://www.w3.org/2005/08/addressing" xmlns:u="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action
s:mustUnderstand="1">http://tempuri.org/IProfilePropertyService/GetProfilePropertiesResponse<
/a:Action>
    <a:RelatesTo>urn:uuid:3eb21222-2b62-4735-a9ac-e673a6ee31df</a:RelatesTo>
    <a:To s:mustUnderstand="1">http://www.w3.org/2005/08/addressing/anonymous</a:To>
    <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-open.org/wss/2004/01/oasis-
200401-wss-wssecurity-secext-1.0.xsd">
      ...
    </o:Security>
  </s:Header>
  <s:Body>
    <GetProfilePropertiesResponse xmlns="http://tempuri.org/">
      <GetProfilePropertiesResult xmlns:b="http://Microsoft/Office/Server/UserProfiles"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <d4p1:AppID>9f5c3c8f-beec-44ea-bc04-6ffe2fb0e7bc</d4p1:AppID>
        <d4p1:AppStatus>Online</d4p1:AppStatus>
        <d4p1:ChangeJobSchedule>hourly between 0 and 0</d4p1:ChangeJobSchedule>
        <d4p1:ILMMachineName i:nil="true"></d4p1:ILMMachineName>
      </GetProfilePropertiesResult>
    </GetProfilePropertiesResponse>
  </s:Body>
</s:Envelope>
```

```

<d4p1:IgnoreIsActiveFlag>false</d4p1:IgnoreIsActiveFlag>
<d4p1:IsClaimProvider i:nil="true"></d4p1:IsClaimProvider>
<d4p1:IsIilmFullyConfigured>false</d4p1:IsIilmFullyConfigured>
<d4p1:IsInitialDataPopulated>false</d4p1:IsInitialDataPopulated>
<d4p1:IsUpscaleILMUsed>false</d4p1:IsUpscaleILMUsed>
<d4p1:IsUsersOnlyILMImport>false</d4p1:IsUsersOnlyILMImport>
<d4p1:NextSynchronizationStage>None</d4p1:NextSynchronizationStage>
<d4p1:PartitionIDs
xmlns:d5p1="http://schemas.microsoft.com/2003/10/Serialization/Arrays">
  <d5p1:guid>0c37852b-34d0-418e-91c6-2ac25af4be5b</d5p1:guid>
</d4p1:PartitionIDs>
<d4p1:PartitionOptions>UnPartitioned</d4p1:PartitionOptions>
<d4p1:PerfmonInstanceHandle>-1</d4p1:PerfmonInstanceHandle>

<d4p1:ProfileDatabaseBackwardsCompatibleSchemaVersion>14.0.82.0</d4p1:ProfileDatabaseBackward
sCompatibleSchemaVersion>
  <d4p1:ProfileDatabaseConnectionString>Data Source=TestMachine;Initial
Catalog="User Profile Service
Application_ProfileDB_715524f91eac4f7caeee38a2f53375c9";Integrated
Security=True;Enlist=False;Connect Timeout=15</d4p1:ProfileDatabaseConnectionString>
  <d4p1:ProfileDatabaseSchemaVersion>14.0.82.0</d4p1:ProfileDatabaseSchemaVersion>
  <d4p1:ProfileStoreCollationId>25</d4p1:ProfileStoreCollationId>
  <d4p1:ProfileStoreLanguage>1033</d4p1:ProfileStoreLanguage>
  <d4p1:SerializedAdministratorAcl>
    <acl version="1.0">
      <ace identityName="domain\user1" displayName="User 1"
sid="AQUAAAAAAAUVAAAAoGXpfnhLml/nfIdwKgQBAA==" allowRights="8" denyRights="0" />
    </acl>
  </d4p1:SerializedAdministratorAcl>
  <d4p1:SkipBDCImport>false</d4p1:SkipBDCImport>

<d4p1:SocialDatabaseBackwardsCompatibleSchemaVersion>14.0.21.0</d4p1:SocialDatabaseBackwardsC
ompatibleSchemaVersion>
  <d4p1:SocialDatabaseConnectionString>Data Source=TestMachine;Initial Catalog="User
Profile Service Application_SocialDB_bba7ac6987904e2b93f3aded1af2e65d";Integrated
Security=True;Enlist=False;Connect Timeout=15</d4p1:SocialDatabaseConnectionString>
  <d4p1:SocialDatabaseSchemaVersion>14.0.21.0</d4p1:SocialDatabaseSchemaVersion>
  <d4p1:SyncServiceInstanceId>00000000-0000-0000-0000-
000000000000</d4p1:SyncServiceInstanceId>

<d4p1:UseOnlyPreferredDomainControllers>false</d4p1:UseOnlyPreferredDomainControllers>
  </GetProfilePropertiesResult>
</GetProfilePropertiesResponse>
</s:Body>
</s:Envelope>

```



## 5 Security

### 5.1 Security Considerations for Implementers

There are no security considerations that are specific to this protocol. General security considerations pertaining to [RFC2822](#) apply.

This protocol does not introduce any additional security considerations beyond those that apply to its underlying protocols.

### 5.2 Index of Security Parameters

None.

## 6 Appendix A: Full WSDL

For ease of implementation, the following full WSDL is provided:

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:tns="http://tempuri.org/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" name="ProfilePropertyService"
  targetNamespace="http://tempuri.org/" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xs:schema elementFormDefault="qualified" targetNamespace="http://tempuri.org/"
      xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:import namespace="http://Microsoft/Office/Server/UserProfiles" />
      <xs:element name="GetProfileProperties">
        <xs:complexType>
          <xs:sequence />
        </xs:complexType>
      </xs:element>
      <xs:element name="GetProfilePropertiesResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element xmlns:q1="http://Microsoft/Office/Server/UserProfiles" minOccurs="0"
              name="GetProfilePropertiesResult" nillable="true" type="q1:ProfilePropertyData" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:schema>
    <xs:schema xmlns:tns="http://Microsoft/Office/Server/UserProfiles"
      xmlns:ser="http://schemas.microsoft.com/2003/10/Serialization/"
      elementFormDefault="qualified" targetNamespace="http://Microsoft/Office/Server/UserProfiles"
      xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/" />
      <xs:import
        namespace="http://schemas.datacontract.org/2004/07/Microsoft.SharePoint.Administration" />
      <xs:import
        namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.UserProfiles" />
      <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/Arrays" />
      <xs:import
        namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Utilities" />
      <xs:complexType name="ProfilePropertyData">
        <xs:sequence>
          <xs:element minOccurs="0" name="AppID" type="ser:guid" />
          <xs:element
            xmlns:q1="http://schemas.datacontract.org/2004/07/Microsoft.SharePoint.Administration"
            minOccurs="0" name="AppStatus" type="q1:SPObjectStatus" />
          <xs:element minOccurs="0" name="ChangeJobSchedule" nillable="true" type="xs:string" />
          <xs:element minOccurs="0" name="ILMMachineName" nillable="true" type="xs:string" />
          <xs:element minOccurs="0" name="IgnoreIsActiveFlag" type="xs:boolean" />
          <xs:element minOccurs="0" name="IsClaimProvider" nillable="true" type="xs:boolean" />
          <xs:element minOccurs="0" name="IsIilmFullyConfigured" type="xs:boolean" />
          <xs:element minOccurs="0" name="IsInitialDataPopulated" type="xs:boolean" />
          <xs:element minOccurs="0" name="IsUpscaleILMUsed" type="xs:boolean" />
          <xs:element minOccurs="0" name="IsUsersOnlyILMImport" type="xs:boolean" />
          <xs:element
            xmlns:q2="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.UserProfiles"
            minOccurs="0" name="NextSynchronizationStage" type="q2:SynchronizationStage" />
        </xs:sequence>
      </xs:complexType>
    </xs:schema>
  </wsdl:types>

```

```

        <xs:element xmlns:q3="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
minOccurs="0" name="PartitionIDs" nillable="true" type="q3:ArrayOfguid" />
        <xs:element
xmlns:q4="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Utilities"
minOccurs="0" name="PartitionOptions" type="q4:SPPartitionOptions" />
        <xs:element minOccurs="0" name="PerfmonInstanceHandle" type="xs:int" />
        <xs:element minOccurs="0" name="ProfileDatabaseBackwardsCompatibleSchemaVersion"
nillable="true" type="xs:string" />
        <xs:element minOccurs="0" name="ProfileDatabaseConnectionString" nillable="true"
type="xs:string" />
        <xs:element minOccurs="0" name="ProfileDatabaseSchemaVersion" nillable="true"
type="xs:string" />
        <xs:element minOccurs="0" name="ProfileStoreCollationId" type="xs:int" />
        <xs:element minOccurs="0" name="ProfileStoreLanguage" type="xs:int" />
        <xs:element minOccurs="0" name="SerializedAdministratorAcl" nillable="true"
type="xs:string" />
        <xs:element minOccurs="0" name="SkipBDCImport" type="xs:boolean" />
        <xs:element minOccurs="0" name="SocialDatabaseBackwardsCompatibleSchemaVersion"
nillable="true" type="xs:string" />
        <xs:element minOccurs="0" name="SocialDatabaseConnectionString" nillable="true"
type="xs:string" />
        <xs:element minOccurs="0" name="SocialDatabaseSchemaVersion" nillable="true"
type="xs:string" />
        <xs:element minOccurs="0" name="SyncServiceInstanceId" type="ser:guid" />
        <xs:element minOccurs="0" name="UseOnlyPreferredDomainControllers"
type="xs:boolean" />
    </xs:sequence>
</xs:complexType>
    <xs:element name="ProfilePropertyData" nillable="true" type="tns:ProfilePropertyData"
/>
</xs:schema>
<xs:schema xmlns:tns="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="tns:char" />
    <xs:simpleType name="char">
        <xs:restriction base="xs:int" />
    </xs:simpleType>
    <xs:element name="duration" nillable="true" type="tns: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="tns:guid" />
<xs:simpleType name="guid">
    <xs:restriction base="xs:string">
        <xs:pattern value="[\da-fA-F]{8}-[\da-fA-F]{4}-[\da-fA-F]{4}-[\da-fA-F]{4}-[\da-fA-F]{12}" />
    </xs:restriction>
</xs:simpleType>
<xs:attribute name="FactoryType" type="xs:QName" />
<xs:attribute name="Id" type="xs:ID" />
<xs:attribute name="Ref" type="xs:IDREF" />
</xs:schema>
<xs:schema
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.SharePoint.Administration"
elementFormDefault="qualified"
targetNamespace="http://schemas.datacontract.org/2004/07/Microsoft.SharePoint.Administration"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
    <xs:simpleType name="SPObjectStatus">
        <xs:restriction base="xs:string">
            <xs:enumeration value="Online" />
            <xs:enumeration value="Disabled" />
            <xs:enumeration value="Offline" />
            <xs:enumeration value="Unprovisioning" />
            <xs:enumeration value="Provisioning" />
            <xs:enumeration value="Upgrading" />
        </xs:restriction>
    </xs:simpleType>
    <xs:element name="SPObjectStatus" nillable="true" type="tns:SPObjectStatus" />
</xs:schema>
<xs:schema
xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.UserProfiles"
elementFormDefault="qualified"
targetNamespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.UserProfiles"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
    <xs:simpleType name="SynchronizationStage">
        <xs:restriction base="xs:string">
            <xs:enumeration value="None" />
            <xs:enumeration value="StartSynchronization" />
            <xs:enumeration value="ActiveDirectoryImport" />
            <xs:enumeration value="LdapDirectoryImport" />
            <xs:enumeration value="MossImport" />
            <xs:enumeration value="ActiveDirectorySync" />
            <xs:enumeration value="LdapDirectorySync" />
            <xs:enumeration value="ActiveDirectoryResourceSync" />
            <xs:enumeration value="StartExportSteps" />
            <xs:enumeration value="MossExport" />
            <xs:enumeration value="MossSync" />
            <xs:enumeration value="LdapDirectoryExport" />
            <xs:enumeration value="ActiveDirectoryExport" />
            <xs:enumeration value="LdapDirectoryConfirmingImport" />
            <xs:enumeration value="ActiveDirectoryConfirmingImport" />
            <xs:enumeration value="BusinessDataCatalogImport" />
            <xs:enumeration value="BusinessDataCatalogSync" />
            <xs:enumeration value="MossFinalExport" />
        </xs:restriction>
    </xs:simpleType>

```

```

        <xs:element name="SynchronizationStage" nillable="true" type="tns:SynchronizationStage"
    />
    </xs:schema>
    <xs:schema xmlns:tns="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
    xmlns:ser="http://schemas.microsoft.com/2003/10/Serialization/"
    elementFormDefault="qualified"
    targetNamespace="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
    xmlns:xs="http://www.w3.org/2001/XMLSchema">
        <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/" />
        <xs:complexType name="ArrayOfguid">
            <xs:sequence>
                <xs:element minOccurs="0" maxOccurs="unbounded" name="guid" type="ser:guid" />
            </xs:sequence>
        </xs:complexType>
        <xs:element name="ArrayOfguid" nillable="true" type="tns:ArrayOfguid" />
    </xs:schema>
    <xs:schema
    xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Utilities"
    elementFormDefault="qualified"
    targetNamespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Utilities"
    xmlns:xs="http://www.w3.org/2001/XMLSchema">
        <xs:simpleType name="SPPartitionOptions">
            <xs:restriction base="xs:string">
                <xs:enumeration value="UnPartitioned" />
                <xs:enumeration value="UniquePartitionPerSubscription" />
            </xs:restriction>
        </xs:simpleType>
        <xs:element name="SPPartitionOptions" nillable="true" type="tns:SPPartitionOptions" />
    </xs:schema>
</wsdl:types>
<wsdl:message name="IProfilePropertyService_GetProfileProperties_InputMessage">
    <wsdl:part name="parameters" element="tns:GetProfileProperties" />
</wsdl:message>
<wsdl:message name="IProfilePropertyService_GetProfileProperties_OutputMessage">
    <wsdl:part name="parameters" element="tns:GetProfilePropertiesResponse" />
</wsdl:message>
<wsdl:portType name="IProfilePropertyService">
    <wsdl:operation name="GetProfileProperties">
        <wsdl:input
    wsam:Action="http://Microsoft.Office.Server.UserProfiles/GetProfileProperties"
    message="tns:IProfilePropertyService_GetProfileProperties_InputMessage" />
        <wsdl:output
    wsam:Action="http://tempuri.org/IProfilePropertyService/GetProfilePropertiesResponse"
    message="tns:IProfilePropertyService_GetProfileProperties_OutputMessage" />
        </wsdl:operation>
    </wsdl:portType>
    <wsdl:binding name="CustomBinding_IProfilePropertyService"
    type="tns:IProfilePropertyService">
        <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
        <wsdl:operation name="GetProfileProperties">
            <soap:operation
    soapAction="http://Microsoft.Office.Server.UserProfiles/GetProfileProperties"
    style="document" />
            <wsdl:input>
                <soap:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
    </wsdl:binding>
</wsdl:binding>

```

```
</wsdl:binding>  
</wsdl:definitions>
```

## 7 Appendix B: 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 2010

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.

## 8 Change Tracking

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



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