

# [MS-SHDACCWS]: Shared Access Web Service Protocol Specification

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## Revision Summary

Date	Revision History	Revision Class	Comments
07/13/2009	0.1	Major	Initial Availability
08/28/2009	0.2	Editorial	Revised and edited the technical content
11/06/2009	0.3	Editorial	Revised and edited the technical content
02/19/2010	1.0	Editorial	Revised and edited the technical content
03/31/2010	1.01	Editorial	Revised and edited the technical content
04/30/2010	1.02	Editorial	Revised and edited the technical content
06/07/2010	1.03	Editorial	Revised and edited the technical content
06/29/2010	1.04	Minor	Clarified the meaning of the technical content.
07/23/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
09/27/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
11/15/2010	1.04	No change	No changes to the meaning, language, or formatting of the technical content.
12/17/2010	1.05	Editorial	Changed language and formatting in the technical content.

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# 1 Introduction

This document specifies the Shared Access Web Service Protocol that is used for determining whether a document is being co-authored.

## 1.1 Glossary

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

**Hypertext Transfer Protocol (HTTP)**  
**Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**

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

**co-authoring transition**  
**site**  
**SOAP (Simple Object Access Protocol)**  
**SOAP action**  
**SOAP body**  
**SOAP fault**  
**URL (Uniform Resource Locator)**  
**WSDL (Web Services Description Language)**  
**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

### 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-LISTSWS] Microsoft Corporation, "[Lists Web Service Protocol Specification](#)", June 2008.

[MS-WSSCAML] Microsoft Corporation, "[Collaborative Application Markup Language \(CAML\) Structure Specification](#)", June 2008.

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

[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>

[XMLNS] World Wide Web Consortium, "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation 8 December 2009, <http://www.w3.org/TR/REC-xml-names/>

[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](#)", March 2007.

[MS-OFCGLOS] Microsoft Corporation, "[Microsoft Office Master Glossary](#)", June 2008.

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

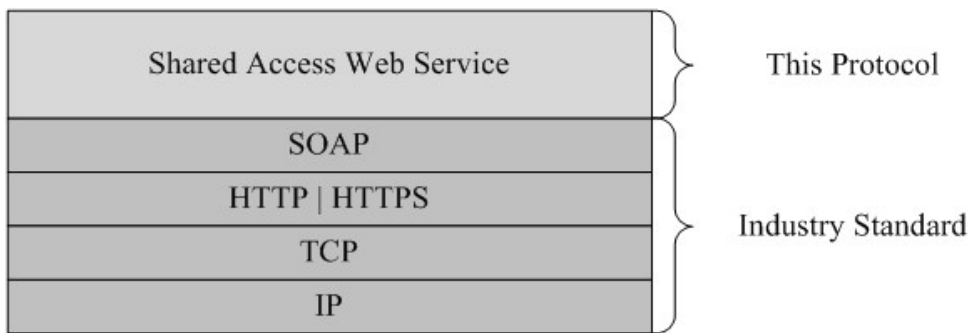
## 1.3 Protocol Overview (Synopsis)

The protocol allows clients to determine whether a **co-authoring transition** request was made for a document. A typical scenario for using this protocol is an authoring client that allows multiple users edit a document in a co-authoring session.

## 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 **Hypertext Transfer Protocol over Secure Sockets Layer (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 **site(1)** that is identified by a **URL** that is known by protocol clients. The protocol server endpoint is formed by appending `"/_vti_bin/sharedaccess.asmx"` to the URL of the site(1), for example `http://www.contoso.com/Repository/_vti_bin/sharedaccess.asmx`.

## 1.6 Applicability Statement

This protocol can be used by a protocol client to determine if it is the only client currently editing a document stored on a collaboration server, or alternately, if should transition to a shared editing mode.

## 1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

**Supported Transports:** This protocol uses multiple transports with SOAP (Simple Object Access Protocol) as described in section [2.1](#).

## 1.8 Vendor-Extensible Fields

None.

## 1.9 Standards Assignments

None.

## 2 Messages

### 2.1 Transport

Protocol servers MUST support SOAP (Simple Object Access Protocol) over HTTP. Protocol servers SHOULD additionally support SOAP over HTTPS for securing communication with clients.

Protocol messages MUST be formatted as specified either in [\[SOAP1.1\]](#), Section 4, SOAP Envelope or in [\[SOAP1.2/1\]](#), Section 5, SOAP Message Construct. Protocol server faults MUST be returned either using HTTP Status Codes as specified in [\[RFC2616\]](#), Section 10, Status Code Definitions, or using **SOAP faults** as specified either in [\[SOAP1.1\]](#), Section 4.4. or in [\[SOAP1.2/1\]](#), Section 5.4.

### 2.2 Common Message Syntax

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

#### 2.2.1 Namespaces

This protocol specifies and references **XML namespaces** using the mechanisms specified in [\[XMLNS\]](#). Although this document associates an **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.microsoft.com/sharepoint/soap/">http://schemas.microsoft.com/sharepoint/soap/</a>	<a href="#">[MS-LISTSWS]</a>
s1	<a href="http://microsoft.com/wsdl/types/">http://microsoft.com/wsdl/types/</a>	[MS-LISTSWS]
s	<a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>	<a href="#">[XMLSCHEMA1]</a>
soap12	<a href="http://schemas.xmlsoap.org/wsdl/soap12/">http://schemas.xmlsoap.org/wsdl/soap12/</a>	<a href="#">[SOAP1.2/1]</a> <a href="#">[SOAP1.2/2]</a>
wsdl	<a href="http://schemas.xmlsoap.org/wsdl/">http://schemas.xmlsoap.org/wsdl/</a>	<a href="#">[WSDL]</a>
mime	<a href="http://schemas.xmlsoap.org/wsdl/mime/">http://schemas.xmlsoap.org/wsdl/mime/</a>	
http	<a href="http://schemas.xmlsoap.org/wsdl/http/">http://schemas.xmlsoap.org/wsdl/http/</a>	
tm	<a href="http://microsoft.com/wsdl/mime/textMatching/">http://microsoft.com/wsdl/mime/textMatching/</a>	
soapenc	<a href="http://schemas.xmlsoap.org/soap/encoding/">http://schemas.xmlsoap.org/soap/encoding/</a>	
core	<a href="http://schemas.microsoft.com/sharepoint/soap/">http://schemas.microsoft.com/sharepoint/soap/</a>	<a href="#">[MS-WSSCAML]</a>

#### 2.2.2 Messages

None.



### **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**

This specification does not define any common XML Schema simple type definitions.

### **2.2.6 Attributes**

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

### **2.2.7 Groups**

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

### **2.2.8 Attribute Groups**

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

## 3 Protocol Details

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

Except where specified, protocol clients SHOULD interpret HTTP Status Codes returned by the protocol server as specified in [\[RFC2616\]](#), Section 10, Status Code Definitions.

This protocol allows protocol servers to notify protocol clients of application-level faults using SOAP faults. Except where specified, these SOAP faults are not significant for interoperability, and protocol clients can interpret them in an implementation-specific manner.

This protocol allows protocol servers to perform implementation-specific authorization checks and notify protocol clients of authorization faults either using HTTP Status Codes or using SOAP faults as specified previously in this section.

### 3.1 Server Details

All operations consist of a basic request-response pair and the server treats each request as an independent transaction that is unrelated to any previous request.

#### 3.1.1 Abstract Data Model

None.

#### 3.1.2 Timers

None.

#### 3.1.3 Initialization

None.

#### 3.1.4 Message Processing Events and Sequencing Rules

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

Operation	Description
IsOnlyClient	Specifies whether a co-authoring transition request was made for a document.

##### 3.1.4.1 IsOnlyClient

The method is used by a protocol client to determine whether a co-authoring transition request was made for a document.

```
<wsdl:operation name="IsOnlyClient">
  <wsdl:input message="tns:IsOnlyClientSoapIn" />
  <wsdl:output message="tns:IsOnlyClientSoapOut" />
</wsdl:operation>
```

The protocol client sends an **IsOnlyClientSoapIn** request message and the protocol server responds with an **IsOnlyClientSoapOut** response message.

### 3.1.4.1.1 Messages

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

#### 3.1.4.1.1.1 IsOnlyClientSoapIn

This message is the request of the **IsOnlyClient** operation.

The **SOAP action** value of the message is defined as:

```
http://schemas.microsoft.com/sharepoint/soap/IsOnlyClient
```

The **SOAP body** contains an **IsOnlyClient** element.

#### 3.1.4.1.1.2 IsOnlyClientSoapOut

This message is the response of the **IsOnlyClient** operation.

The SOAP action value of the message is defined as:

```
http://schemas.microsoft.com/sharepoint/soap/IsOnlyClient
```

The SOAP body contains an **IsOnlyClientResponse** element.

### 3.1.4.1.2 Elements

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

#### 3.1.4.1.2.1 IsOnlyClient

The **IsOnlyClient** element defines the input parameters for **IsOnlyClient** operation.

```
<s:element name="IsOnlyClient">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="1" maxOccurs="1" name="id"
        type="core:UniqueIdentifierWithOrWithoutBraces" />
    </s:sequence>
  </s:complexType>
</s:element>
```

**id** : The identifier of the document in the server. Note that `core:UniqueIdentifierWithOrWithoutBraces` is specified in [\[MS-WSSCAML\]](#) section 2.1.17.

#### 3.1.4.1.2.2 IsOnlyClientResponse

**IsOnlyClientResponse** specifies the output of the **IsOnlyClient** operation.

```
<s:element name="IsOnlyClientResponse">
```

```
<s:complexType>
  <s:sequence>
    <s:element minOccurs="1" maxOccurs="1" name="IsOnlyClientResult" type="s:boolean" />
  </s:sequence>
</s:complexType>
</s:element>
```

**IsOnlyClientResult** : The value of this element MUST be false if there was a co-authoring transition request for the document. In all other cases, the value MUST be true.

### 3.1.5 Timer Events

None.

### 3.1.6 Other Local Events

None.

## 4 Protocol Examples

### 4.1 IsOnlyClient

Overall scenario: A protocol client wants to know if a document is transitioning into co-authoring mode. It sends a request to the server to verify if it is the only client editing the document.

The following example shows a sample request where the id element refers to the document identifier.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"

xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <IsOnlyClient xmlns="http://schemas.microsoft.com/sharepoint/soap/">
      <id>{3F2504E0-4F89-11D3-9A0C-0305E82C3301}</id>
    </IsOnlyClient>
  </soap:Body>
</soap:Envelope>
```

The following example shows a sample response from the server.

```
<?xml version="1.0" encoding="utf-8" ?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <IsOnlyClientResponse xmlns="http://schemas.microsoft.com/sharepoint/soap/">
      <IsOnlyClientResult>true</IsOnlyClientResult>
    </IsOnlyClientResponse>
  </soap:Body>
</soap:Envelope>
```

## **5 Security**

### **5.1 Security Considerations for Implementers**

This protocol introduces no additional security considerations beyond those applicable to its underlying protocols.

### **5.2 Index of Security Parameters**

None.

## 6 Appendix A: Full WSDL

For ease of implementation, the full **WSDL (Web Services Description Language)** is provided here as follows:

```
<?xml version="1.0"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
targetNamespace="http://schemas.microsoft.com/sharepoint/soap/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:core="http://schemas.microsoft.com/sharepoint/soap/"
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/sharepoint/soap/">
      <s:import namespace="http://microsoft.com/wsdl/types/" />
      <s:element name="IsOnlyClient">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="id"
type="core:UniqueIdentifierWithOrWithoutBraces" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="IsOnlyClientResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="IsOnlyClientResult" type="s:boolean"
/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://microsoft.com/wsdl/types/">
      </s:schema>
    </wsdl:types>
    <wsdl:message name="IsOnlyClientSoapIn">
      <wsdl:part name="parameters" element="tns:IsOnlyClient" />
    </wsdl:message>
    <wsdl:message name="IsOnlyClientSoapOut">
      <wsdl:part name="parameters" element="tns:IsOnlyClientResponse" />
    </wsdl:message>
    <wsdl:portType name="SharedAccessSoap">
      <wsdl:operation name="IsOnlyClient">
        <wsdl:input message="tns:IsOnlyClientSoapIn" />
        <wsdl:output message="tns:IsOnlyClientSoapOut" />
      </wsdl:operation>
    </wsdl:portType>
    <wsdl:binding name="SharedAccessSoap" type="tns:SharedAccessSoap">
      <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
      <wsdl:operation name="IsOnlyClient">
        <soap:operation soapAction="http://schemas.microsoft.com/sharepoint/soap/IsOnlyClient"
style="document" />
      </wsdl:operation>
    </wsdl:binding>
  </wsdl:definitions>
```

```
<wsdl:input>
  <soap:body use="literal" />
</wsdl:input>
<wsdl:output>
  <soap:body use="literal" />
</wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="SharedAccessSoap12" type="tns:SharedAccessSoap">
  <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="IsOnlyClient">
    <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/IsOnlyClient" style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
</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® Office 2010 suites
- Microsoft® SharePoint® Foundation 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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