[MS-STWEB]:

Microsoft OneDrive Save to Web SOAP Web Service

Revision Summary

Date	Revision History	Revision Class	Comments
2/19/2010	1.0	Major	Initial Availability
3/31/2010	1.01	Major	Updated and revised the technical content
4/30/2010	1.02	Editorial	Revised and edited the technical content
6/7/2010	1.03	Editorial	Revised and edited the technical content
6/29/2010	1.04	Editorial	Changed language and formatting in the technical content.
7/23/2010	1.05	Minor	Clarified the meaning of the technical content.
9/27/2010	1.05	None	No changes to the meaning, language, or formatting of the technical content.
11/15/2010	1.06	Major	Significantly changed the technical content.
12/17/2010	1.06	None	No changes to the meaning, language, or formatting of the technical content.
3/18/2011	1.7	Minor	Clarified the meaning of the technical content.
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7/30/2013	3.1	Minor	Clarified the meaning of the technical content.
11/18/2013	3.2	Minor	Clarified the meaning of the technical content.
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4/30/2014	3.3	Minor	Clarified the meaning of the technical content.
7/31/2014	3.4	Minor	Clarified the meaning of the technical content.
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6/30/2015	4.0	Major	Significantly changed the technical content.
9/4/2015	5.0	Major	Significantly changed the technical content.
4/14/2016	6.0	Major	Significantly changed the technical content.

Date	Revision History	Revision Class	Comments
7/15/2016	6.0	None	No changes to the meaning, language, or formatting of the technical content.
9/14/2016	6.0	None	No changes to the meaning, language, or formatting of the technical content.
4/27/2018	7.0	Major	Significantly changed the technical content.
7/24/2018	8.0	Major	Significantly changed the technical content.
8/28/2018	9.0	Major	Significantly changed the technical content.
6/18/2019	9.0	None	No changes to the meaning, language, or formatting of the technical content.
4/22/2021	10.0	Major	Significantly changed the technical content.
6/25/2021	11.0	Major	Significantly changed the technical content.

Table of Contents

1 Introduction

The Microsoft OneDrive Save to Web SOAP Web Service is used to gather basic information about files and folders hosted on a server along with information about the service implementing the protocol.

Sections 1.5, 1.8, 1.9, 2, and 3 of this specification are normative. All other sections and examples in this specification are informative.

1.1 Glossary

This document uses the following terms:

authenticated user: A built-in security group specified in [MS-WSO] whose members include all users that can be authenticated by a computer.

authentication: The act of proving an identity to a server while providing key material that binds the identity to subsequent communications.

cookie: A small data file that is stored on a user's computer and carries state information between participating protocol servers and protocol clients.

Hypertext Transfer Protocol (HTTP): An application-level protocol for distributed, collaborative, hypermedia information systems (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Hypertext Transfer Protocol Secure (HTTPS): An extension of HTTP that securely encrypts and decrypts web page requests. In some older protocols, "Hypertext Transfer Protocol over Secure Sockets Layer" is still used (Secure Sockets Layer has been deprecated). For more information, see [SSL3] and [RFC5246].

Library folder: A collection of resources, such as files and folders, that are stored in an online file storage and sharing service. The folder is stored in a user's root directory and has unique permission settings for sharing the resources within it.

SOAP: A lightweight protocol for exchanging structured information in a decentralized, distributed environment. **SOAP** uses XML technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation-specific semantics. SOAP 1.2 supersedes SOAP 1.1. See [SOAP1.2-1/2003].

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

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

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

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

Web Distributed Authoring and Versioning Protocol (WebDAV): The Web Distributed Authoring and Versioning Protocol, as described in [RFC2518] or [RFC4918].

web service: A unit of application logic that provides data and services to other applications and can be called by using standard Internet transport protocols such as **HTTP**, Simple Mail Transfer

Protocol (SMTP), or File Transfer Protocol (FTP). Web services can perform functions that range from simple requests to complicated business processes.

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

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

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

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

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

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

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

1.2   References

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

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information.

[MS-OFBA] Microsoft Corporation, "Office Forms Based Authentication Protocol".

[MS-PASS] Microsoft Corporation, "Passport Server Side Include (SSI) Version 1.4 Protocol".

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

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

[RFC4646] Phillips, A., and Davis, M., Eds., "Tags for Identifying Languages", BCP 47, RFC 4646, September 2006, http://www.rfc-editor.org/rfc/rfc4646.txt

[RFC4918] Dusseault, L, Ed., "HTTP Extensions for Web Distributed Authoring and Versioning (WebDAV)", RFC 4918, June 2007, http://www.rfc-editor.org/rfc/rfc4918.txt

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", W3C Note, May 2000, http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

[SOAP1.2-1/2007] Gudgin, M., Hadley, M., Mendelsohn, N., et al., "SOAP Version 1.2 Part 1: Messaging Framework (Second Edition)", W3C Recommendation, April 2007, http://www.w3.org/TR/2007/REC-soap12-part1-20070427/

[WSA1.0] Gudgin, M., Hadley, M., Rogers, T., et al., Eds., "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/

[XMLSCHEMA1/2] Thompson, H., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "XML Schema Part 1: Structures Second Edition", W3C Recommendation, October 2004, http://www.w3.org/TR/2004/REC-xmlschema-1-20041028/

[XMLSCHEMA2/2] Biron, P., and Malhotra, A., Eds., "XML Schema Part 2: Datatypes Second Edition", W3C Recommendation, October 2004, http://www.w3.org/TR/2004/REC-xmlschema-2-20041028/

1.2.2 Informative References

[MS-FSSHTTP] Microsoft Corporation, "File Synchronization via SOAP over HTTP Protocol".

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

[SOAP1.2-2/2007] Gudgin, M., Hadley, M., Mendelsohn, N., et al., "SOAP Version 1.2 Part 2: Adjuncts (Second Edition)", W3C Recommendation, April 2007, http://www.w3.org/TR/2007/REC-soap12-part2-20070427

1.3 Overview

This protocol conveys information about files and folders stored on a server, and information about the **Web service** that implements the protocol. The protocol provides the following capabilities:

- Get descriptive information about the service's name and **authentication** method.

- Get a list of **Library folders** that are associated with the user for file storage.

- Get details for a specific file, such as the containing Library folder and web address.

- Get a list of changed files, including properties such as last modified time, for a given folder since a previous point in time.

This protocol is intended to work alongside a server that implements **WebDAV**, as specified in [RFC4918]. This protocol provides a discovery mechanism for the Library folders belonging to a user, which are then navigable using the WebDAV protocol.

1.4   Relationship to Other Protocols

This protocol uses the **SOAP** message protocol for formatting request and response messages, as described in [SOAP1.1], [SOAP1.2-1/2007] and [SOAP1.2-2/2007]. 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:
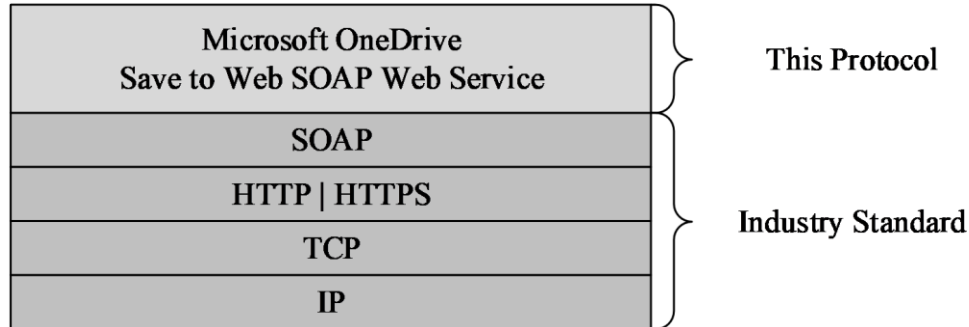
Figure 1: This protocol in relation to other protocols

1.5   Prerequisites/Preconditions

This protocol operates against a **Web service** that is identified by a **URL** that is known by protocol clients, for example https://example.com/SkyDocsService.svc.

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

1.6   Applicability Statement

None.

1.7   Versioning and Capability Negotiation

The client requests a specific version of the protocol via the **SkyDocsServiceVersion** field (see section 2.2.4.4).

1.8   Vendor-Extensible Fields

None.

1.9   Standards Assignments

None.

2   Messages

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**, **not null**, and **present**.

2.1   Transport

Protocol servers MUST support SOAP 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 or in [SOAP1.2-1/2007], section 5. Protocol server faults MUST be returned either by using HTTP Status Codes as specified in [RFC2616], section 10, or by using **SOAP faults** as specified either in [SOAP1.1], section 4.4 or in [SOAP1.2-1/2007], section 5.4. The version of the SOAP fault returned MUST correspond to the version of SOAP used for the request **WSDL message**.

2.1.1   Authorization Discovery

When a protocol client issues an HTTP HEAD request, as specified in [RFC2616], to a protocol server that uses the Passport Server Side Include (SSI) Protocol, as specified in [MS-PASS], the protocol client MAY<1> include the field **X-Office_Authorization_Check** with a value of "1" to determine whether the identity of the user is authorized to access a specific resource on the protocol server.

If the **authentication cookie** specified in the HTTP HEAD request is valid but not authorized to access the specific resource, the server MUST return a "403 Forbidden" HTTP status code, as specified in [RFC2616], indicating that the identity of the user is not authorized.

If the authentication cookie specified in the HTTP HEAD request is not valid, or is valid and is authorized to access the specific resource, the server's behavior is unchanged from that specified in [MS-PASS].

If a protocol client supports the Office Forms Based Authentication Protocol (FBA) as specified in [MS-OFBA], the client can request an FBA authentication challenge by issuing an HTTP request against the server with a unique path. The path MUST be of the form "/*cid*/*folder*[/…]/35CD0E46-9A84-4FF9-9717-A4DDC5D26276" where *cid* is the user's identifier, and *folder* is a top-level folder under the user's account. The "/…" are optional subdirectories under *folder*. The path MUST end with the GUID "35CD0E46-9A84-4FF9-9717-A4DDC5D26276". If the server encounters an HTTP request against a path of this format, the server MUST validate authentication against the resource at the requested path, excluding the GUID. If the client does not supply valid credentials, the server MUST respond with a Forms Based Authentication Required Response Header, as specified in [MS-OFBA] section 2.2.2, and both the client and server MUST continue with the authentication request, as specified in [MS-OFBA]. If the client does supply valid credentials for the path excluding the GUID, the server MUST respond to the HTTP request against the path excluding the GUID. This protocol differs from [MS-OFBA] section 2.2.1 in that the FBA authentication challenge is initiated by the GUID against any HTTP request and is not limited to OPTIONS requests ([RFC2616] section 9.2).

2.2   Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as specified in [XMLSCHEMA1/2] and [XMLSCHEMA2/2], and **WSDL**, as specified 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
i0	http://schemas.microsoft.com/clouddocuments	
sa	http://schemas.microsoft.com/2003/10/Serialization/Arrays	
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
wsaw	http://www.w3.org/2006/05/addressing/wsdl	Web Service Addressing [WSA1.0]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1/2] [XMLSCHEMA2/2]

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

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

Complex type	Description
ArrayOfstring	An array of string items.
Document	Contains information about one file.
Library	Contains information about one folder.
OperationRequest	Basic information shared between various requests.
ServerError	Failure information returned when a server error occurs.
SharedLibrary	Information appended to a normal **Library** to describe a folder shared by a user.
SharingLevelInfo	A combination of the sharing level and a description of the sharing level for a folder.
TermsOfUseNotSigned	A **SOAP fault** returned when a user has not yet signed the Terms of Use agreement.

2.2.4.1 ArrayOfstring

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

An array of string items.

```
<xs:complexType name="ArrayOfstring" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="string" nillable="true"
type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

string: A single string item.

2.2.4.2 Document

Namespace: http://schemas.microsoft.com/clouddocuments

Contains information about one file.

```
<xs:complexType name="Document" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="AccessLevel" type="i0:AccessLevel"/>
    <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="DisplayName" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="IsNotebook" nillable="true" type="xs:boolean"/>
    <xs:element minOccurs="0" name="LastModifiedDate" type="xs:dateTime"/>
    <xs:element minOccurs="0" name="Owner" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="ResourceId" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="SharingLevelInfo" nillable="true"
type="i0:SharingLevelInfo"/>
    <xs:element minOccurs="0" name="ViewUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="WacUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="WebUrl" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

AccessLevel: The access level of the file. This field MUST be present.

DavUrl: The URL used to access the file via **WebDAV**, as specified in [RFC4918]. This field MUST be present.

DisplayName: The name of the file. This field MUST be present.

IsNotebook: Indicates whether the file is a OneNote notebook. This field MUST be present.

LastModifiedDate: UTC time when the folder was last modified. This field MUST be present.

Owner: The name of the user who created the folder. The field MUST be present.

ResourceId: The unique identifier for the file on the server. This field MUST be present.

SharingLevelInfo: The sharing level of the file. This field MUST be present.

ViewUrl: A URL that can be used to view the file in a web browser, if the file has such a URL; otherwise an empty value. This field MUST be present.

WacUrl: A URL that can be used to discover API endpoints on the server. This field MUST be present.

WebUrl: A URL that can be used to view the properties of the file. This field MUST be present.

2.2.4.3 Library

Namespace: http://schemas.microsoft.com/clouddocuments

Contains information about one folder.

```
<xs:complexType name="Library" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="AccessLevel" type="i0:AccessLevel"/>
    <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="DisplayName" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="SharingLevelInfo" nillable="true"
type="i0:SharingLevelInfo"/>
    <xs:element minOccurs="0" name="WebUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="ResourceId" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="LastModifiedDate" type="xs:dateTime"/>
  </xs:sequence>
</xs:complexType>
```

AccessLevel: The access level of the folder. This field MUST be present.

DavUrl: The URL used to access the folder via **WebDAV**, as specified in [RFC4918]. This field MUST be present.

DisplayName: The name of the folder. This field MUST be present.

SharingLevelInfo: The sharing level of the folder. This field MUST be present.

WebUrl: The URL used to access the folder via **HTTP** or **HTTPS**. This field MUST be present.

ResourceId: The unique identifier for the folder on the server. This field MUST be present.

LastModifiedDate: UTC time when the folder was last modified. This field MUST be present.

2.2.4.4 OperationRequest

Namespace: http://schemas.microsoft.com/clouddocuments

Basic information shared between various requests.

```
<xs:complexType name="OperationRequest" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="ClientAppId" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="Market" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="SkyDocsServiceVersion" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

ClientAppId: Information about the identity and version of the client. This string is informational for the server. The format and content are determined by the client.

Market: The client's preferred language culture for strings returned by the server. If this field exists it MUST contain one of the following:

- A value constructed as specified in [RFC4646]

- The value "x-none"

- An empty string

The server returns strings, such as the value of the **Description** field in **SharedLibrary**, that are intended for display to the user. The server returns these strings in the language most similar to that requested by the client for which the server has localized resources. If the client passes the value "x-none" or an empty string, the server returns the strings in a default language that is chosen by the server.

SkyDocsServiceVersion: The requested version of the service. If this field exists it MUST have a value of "v1.0".

2.2.4.5 ServerError

Namespace: http://schemas.microsoft.com/clouddocuments

Failure information returned when a server error occurs.

```
<xs:complexType name="ServerError" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="FailureDetail" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="MachineName" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

FailureDetail: A description of the error. This field MUST be present.

MachineName: The name of the server which caused the error. This field MUST be present.

2.2.4.6 SharedLibrary

Namespace: http://schemas.microsoft.com/clouddocuments

Information appended to a normal **Library** to describe a folder shared by a user.

```
<xs:complexType name="SharedLibrary" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="i0:Library">
      <xs:sequence>
        <xs:element minOccurs="0" name="Owner" nillable="true" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Owner: The name of the user who shared the folder. This field MUST be present.

2.2.4.7 SharingLevelInfo

Namespace: http://schemas.microsoft.com/clouddocuments

A combination of the sharing level and a description of the sharing level for a folder.

```
<xs:complexType name="SharingLevelInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="Description" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="Level" type="i0:SharingLevel"/>
  </xs:sequence>
</xs:complexType>
```

Description: A description of the sharing level suitable for display to the user. This field MUST be present.

Level: The sharing level. This field MUST be present.

2.2.4.8 TermsOfUseNotSigned

Namespace: http://schemas.microsoft.com/clouddocuments

A **SOAP fault** returned when a user has not yet signed the Terms of Use agreement.

```
<xs:complexType name="TermsOfUseNotSigned" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="i0:ServerError">
      <xs:sequence>
        <xs:element minOccurs="0" name="TermsOfUseUrl" nillable="true" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

TermsOfUseUrl: A **URL** for the user to sign the Terms of Use agreement. This field MUST be present.

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
AccessLevel	This type is an enumeration of access levels that describe a folder. A given access level also applies to all folders which are descendants of the given folder.
SharingLevel	This type is an enumeration of sharing levels that can describe a folder.

2.2.5.1 AccessLevel

Namespace: http://schemas.microsoft.com/clouddocuments

This type is an enumeration of access levels that describe a folder. A given access level also applies to all folders which are descendants of the given folder.

```
<xs:simpleType name="AccessLevel" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Read"/>
    <xs:enumeration value="ReadWrite"/>
    <xs:enumeration value="None"/>
  </xs:restriction>
</xs:simpleType>
```

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

Value	Meaning
Read	The user can open files from the folder but cannot save files to it.
ReadWrite	The user can open and save files in the folder.
None	The user cannot open or save files in the folder.

2.2.5.2 SharingLevel

Namespace: http://schemas.microsoft.com/clouddocuments

This type is an enumeration of sharing levels that can describe a folder.

```
<xs:simpleType name="SharingLevel" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Public"/>
    <xs:enumeration value="Private"/>
    <xs:enumeration value="Shared"/>
    <xs:enumeration value="PublicUnlisted"/>
  </xs:restriction>
</xs:simpleType>
```

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

Value	Meaning
Public	The folder is shared with everyone.
Private	The folder is shared with no one.
Shared	The folder is shared with at least one person.
PublicUnlisted	The folder requires a special token to access it. The mechanics of this token are outside the scope of this document.

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

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**, **not null**, and **present**.

The client side of this protocol simply passes calls through, and no additional timers or other state is required. 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

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

Operations in this protocol are stateless and any operation can be issued without regard for which operations have been issued previously.

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

Operation	Description
GetChangesSinceToken	This operation requests the list of files and folders that have changed within a specified folder since a specified time.
GetItemInfo	This operation retrieves information about one file, specified by its **WebDAV URL**. This information includes the **HTTP** URL to view the file, the folder containing the file, and the authenticated user's name.
GetNotebooks	The **GetNotebooks** operation retrieves the set of OneNote notebooks available to the user.<2>
GetProductInfo	This operation retrieves general information about the service including the product name, URLs for further information, and user interface strings. This operation MUST be available without requiring **authentication** (2) by any lower-layer protocol.
GetWebAccountInfo	This operation retrieves the set of **Library folders** available to the user.
ResolveWebUrl	Converts a web URL used for sharing a notebook into a WebDAV URL for the notebook.<3>

3.1.4.1 GetChangesSinceToken

This operation requests the list of files and folders that have changed within a specified folder since a specified time.

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

```
<wsdl:operation name="GetChangesSinceToken" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input wsaw:Action="GetChangesSinceToken" name="GetChangesSinceTokenRequest"
message="i0:GetChangesSinceTokenRequest"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetChangesSinceTokenR
esponse" name="GetChangesSinceTokenResponse" message="i0:GetChangesSinceTokenResponse"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetChangesSinceTokenS
erverErrorFault" name="ServerErrorFault"
message="i0:SkyDocsService GetChangesSinceToken ServerErrorFault FaultMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

GetChangesSinceToken requests incremental changes to a specified folder via synchronization tokens. A synchronization token is a string generated by the server to identify the complete listing and timestamps of every file and folder contained by a specified folder at a specified time. A client uses this string to request the server for the set of files and folders that have been added, modified, or deleted in the specified folder at the time of the request relative to the time specified by the synchronization token. The format of the string is specified by the server implementing synchronization tokens and can be opaque to clients, except that an empty string requests the complete folder listing at the time of the request.

The client MUST first issue a request with an empty synchronization token; and the server returns the set of all files and folders contained by the specified folder, plus a synchronization token for the set. The client can then issue a **GetChangesSinceToken** request with this synchronization token; and the server returns only the set of files and folders that have changed, plus a new synchronization token for the updated set. If the synchronization token in the request is not considered valid by the server (such as the synchronization token being too old), the server MUST return an empty set and empty synchronization token, which specifies that the client MUST issue a new request with an empty synchronization token.

The client MUST wait at least the number of seconds specified by the **MinAmIAloneSyncInterval**, **MinBackgroundSyncInterval**, and **MinRealtimeSyncInterval** elements before issuing a new request as specified by these elements. Otherwise, the client will place an unnecessary load on the server.

3.1.4.1.1 Messages

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

Message	Description
GetChangesSinceTokenRequest	The request WSDL message for the **GetChangesSinceToken WSDL operation**.
GetChangesSinceTokenResponse	The response WSDL message for the **GetChangesSinceToken** WSDL operation.

3.1.4.1.1.1 GetChangesSinceTokenRequest

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

The **SOAP action** value is:

```
GetChangesSinceToken
```

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

3.1.4.1.1.2 GetChangesSinceTokenResponse

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

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

3.1.4.1.2 Elements

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

Element	Description
GetChangesSinceTokenRequest	The input data for the **GetChangesSinceToken WSDL operation**.
GetChangesSinceTokenResponse	The result data for the **GetChangesSinceToken** WSDL operation.

3.1.4.1.2.1 GetChangesSinceTokenRequest

The **GetChangesSinceTokenRequest** element specifies the input data for the **GetChangesSinceToken WSDL operation**.

```
<xs:element name="GetChangesSinceTokenRequest" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
      <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="SyncToken" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

BaseRequest: An **OperationRequest** element (section 2.2.4.4) that specifies basic information about the request.

DavUrl: Specifies the **WebDAV** URL of the folder to get the file and folder listing for. MUST be a direct child of a **Library folder**.

SyncToken: Specifies a synchronization token. If **SyncToken** is empty or null, then the response MUST return every file and folder contained in the folder specified by **DavUrl**. Otherwise MUST be a synchronization token returned by a previous GetChangesSinceToken operation (section 3.1.4.1) against the same **DavUrl** as specified by GetChangesSinceTokenResponse.**SyncToken** (section 3.1.4.1.2.2), and the server MUST return the set of files and folders that have changed since the given synchronization token if the synchronization token is still valid.

3.1.4.1.2.2 GetChangesSinceTokenResponse

The **GetChangesSinceTokenResponse** element specifies the result data for the
GetChangesSinceToken WSDL operation.

```
<xs:element name="GetChangesSinceTokenResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="MinAmIAloneSyncInterval" type="xs:int"/>
      <xs:element minOccurs="0" name="MinBackgroundSyncInterval" type="xs:int"/>
      <xs:element minOccurs="0" name="MinRealtimeSyncInterval" type="xs:int"/>
      <xs:element minOccurs="0" name="SyncData" nillable="true">
        <xs:complexType>
          <xs:sequence>
            <xs:any minOccurs="0" processContents="lax"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element minOccurs="0" name="SyncToken" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

MinAmIAloneSyncInterval: Specifies the recommended minimum number of seconds a client waits before asking the server if there are other users accessing the requested folder specified by GetChangesSinceTokenRequest.**DavUrl** (section 3.1.4.1.2.1). This field MUST be present.

MinBackgroundSyncInterval: Specifies the recommended minimum number of seconds a client waits before syncing changes to the entire folder specified by **GetChangesSinceTokenRequest.DavUrl**. This field MUST be present.

MinRealtimeSyncInterval: Specifies the recommended minimum number of seconds a client waits before syncing changes to the active file in the requested folder specified by **GetChangesSinceTokenRequest.DavUrl**. This field MUST be present.

SyncData: Contains a [RFC4918] DAV:multistatus element that specifies the list of files and folders that have been added, changed, or deleted within the folder specified by **GetChangesSinceTokenRequest.DavUrl** since the synchronization token specified by **GetChangesSinceTokenRequest.SyncToken**. If the synchronization token in the request is empty, then the response MUST contain every file and folder contained by the specified folder.

The [RFC4918] DAV:multistatus element MUST contain a [RFC4918] DAV:response element for each file or folder in the response. Each [RFC4918] DAV:response element MUST contain one [RFC4918] DAV:href element and one [RFC4918] DAV:propstat element. Each [RFC4918] DAV:propstat element MUST contain a [RFC4918] DAV:status element.

For each file or folder that has been either newly added to the server or modified since the synchronization token in the request, the [RFC4918] DAV:status element MUST be 200 OK, and the [RFC4918] DAV:propstat element MUST contain a [RFC4918] DAV:prop element containing the following properties:

▪ [RFC4918] DAV:displayname

▪ [RFC4918] DAV:isFolder

▪ [RFC4918] DAV:getcontentlength

▪ [RFC4918] DAV:creationdate

▪ [RFC4918] DAV:getlastmodified

The [RFC4918] DAV:prop element MAY contain additional properties.

For each file or folder that has been deleted since the synchronization token in the request, the [RFC4918] DAV:status element MUST be 404 Not Found, and the [RFC4918] DAV:propstat element MUST NOT contain a [RFC4918] DAV:prop element.

If changes have occurred to the folder since the specified synchronization token, or if the synchronization token is empty, then the first [RFC4918] DAV:response element in the response MUST be the folder itself. All subsequent [RFC4918] DAV:response elements are the child files and folders that have changed.

If no changes have occurred to the folder since the specified synchronization token, or if the synchronization token is not valid, then the [RFC4918] DAV:multistatus element MUST be empty.

This field MUST be present.

SyncToken: A synchronization token that corresponds to the current state of the folder specified by GetChangesSinceTokenRequest.**DavUrl** (section 3.1.4.1.2.1). If the synchronization token specified by GetChangesSinceTokenRequest.**SyncToken** (section 3.1.4.1.2.1) is not valid, then **SyncToken** MUST be empty. This field MUST be present.

3.1.4.1.3 Complex Types

None.

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 GetItemInfo

This operation retrieves information about one file, specified by its **WebDAV URL**. This information includes the **HTTP** URL to view the file, the folder containing the file, and the authenticated user's name.

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

```
<wsdl:operation name="GetItemInfo" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input wsaw:Action="GetItemInfo" name="GetItemInfoRequest"
message="i0:GetItemInfoRequest" xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetItemInfoResponse"
name="GetItemInfoResponse" message="i0:GetItemInfoResponse"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetItemInfoServerErro
rFault" name="ServerErrorFault"
```

```
message="i0:SkyDocsService_GetItemInfo_ServerErrorFault_FaultMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

3.1.4.2.1 Messages

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

Message	Description
GetItemInfoRequest	The request WSDL message for the **GetItemInfo WSDL operation**.
GetItemInfoResponse	The response WSDL message for the **GetItemInfo** WSDL operation.

3.1.4.2.1.1   GetItemInfoRequest

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

The **SOAP action** value is:

```
GetItemInfo
```

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

3.1.4.2.1.2   GetItemInfoResponse

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

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

3.1.4.2.2 Elements

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

Element	Description
GetItemInfoRequest	The input data for the **GetItemInfo WSDL operation**.
GetItemInfoResponse	The result data for the **GetItemInfo** WSDL operation.

3.1.4.2.2.1   GetItemInfoRequest

The **GetItemInfoRequest** element specifies the input data for the **GetItemInfo WSDL operation**.

```
<xs:element name="GetItemInfoRequest" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
      <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
```

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

BaseRequest: Basic information about the request.

DavUrl: The **WebDAV URL** for the file for which information will be retrieved. If the **DavUrl** does not refer to a valid file, a **ServerErrorFault** is returned.

3.1.4.2.2.2   GetItemInfoResponse

The **GetItemInfoResponse** element specifies the result data for the **GetItemInfo WSDL operation**.

```
<xs:element name="GetItemInfoResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="Breadcrumbs" nillable="true"
xmlns:sa="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
type="sa:ArrayOfstring"/>
      <xs:element minOccurs="0" name="ItemViewUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="ItemWacUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="ItemWebUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="Library" nillable="true" type="i0:Library"/>
      <xs:element minOccurs="0" name="SignedInUser" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Breadcrumbs: List of strings for the friendly file location on the server.

ItemViewUrl: A **URL** that can be used to view the file if the file has such a URL; otherwise, an empty value. This field MUST be present.

ItemWacUrl: A URL that can be used to discover API endpoints on the server. This field MUST be present.

ItemWebUrl: A URL which can be used to view the properties of the file. This field MUST be present.

Library: Information about the **Library folder** containing the file. This field MUST be present.

SignedInUser: The name of the **authenticated user**. This field MUST be present.

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 GetNotebooks

The **GetNotebooks** operation retrieves the set of OneNote notebooks available to the user.<4>

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

```
<wsdl:operation name="GetNotebooks" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input wsaw:Action="GetNotebooks" name="GetNotebooksRequest"
message="i0:GetNotebooksRequest" xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetNotebooksResponse"
name="GetNotebooksResponse" message="i0:GetNotebooksResponse"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetNotebooksServerErr
orFault" name="ServerErrorFault"
message="i0:SkyDocsService_GetNotebooks_ServerErrorFault_FaultMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetNotebooksTermsOfUs
eNotSignedFault" name="TermsOfUseNotSignedFault"
message="i0:SkyDocsService_GetNotebooks_TermsOfUseNotSignedFault_FaultMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

This operation retrieves OneNote notebooks that are either owned by or shared with the authenticated user, depending on the requested **QueryFilter**.

3.1.4.3.1 Messages

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

Message	Description
GetNotebooksRequest	The request WSDL message for the **GetNotebooks WSDL operation**.
GetNotebooksResponse	The response WSDL message for the **GetNotebooks** WSDL operation.

3.1.4.3.1.1   GetNotebooksRequest

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

The **SOAP action** value is:

```
GetNotebooks
```

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

3.1.4.3.1.2   GetNotebooksResponse

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

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

3.1.4.3.2 Elements

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

Element	Description
GetNotebooksRequest	The input data for the **GetNotebooks WSDL operation**.
GetNotebooksResponse	The result data for the **GetNotebooks** WSDL operation.

3.1.4.3.2.1   GetNotebooksRequest

The **GetNotebooksRequest** element specifies the input data for the **GetNotebooks WSDL operation**.

```
<xs:element name="GetNotebooksRequest" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
      <xs:element minOccurs="0" name="PagingToken" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="QueryFilter" type="i0:QueryFilter"/>
      <xs:element minOccurs="0" name="SupportsPartialResults" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

BaseRequest: Basic information about the request.

PagingToken: Specifies a paging token. If the paging token is empty or null, the operation returns the first page of results. Otherwise MUST be a paging token returned by a previous **GetNotebooks** operation, and the server MUST return the next page of results if the paging token is still valid.

QueryFilter: Request only notebooks matching a given filter value.

SupportsPartialResults: Specifies if the client supports a partial list of notebooks (when the complete list is not available).

3.1.4.3.2.2   GetNotebooksResponse

The **GetNotebooksResponse** element specifies the result data for the **GetNotebooks WSDL operation**.

```
<xs:element name="GetNotebooksResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="HasMorePersonalNotebooks" type="xs:boolean"/>
      <xs:element minOccurs="0" name="HasMoreSharedNotebooks" type="xs:boolean"/>
      <xs:element minOccurs="0" name="IncompleteSharedResults" type="xs:boolean"/>
      <xs:element minOccurs="0" name="NewDefaultNotebookName" nillable="true"
type="xs:string"/>
      <xs:element minOccurs="0" name="PagingToken" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="PersonalNotebooks" nillable="true"
type="i0:ArrayOfNotebook"/>
      <xs:element minOccurs="0" name="RootDavUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="SharedNotebooks" nillable="true"
type="i0:ArrayOfNotebook"/>
    </xs:sequence>
```

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

HasMorePersonalNotebooks: Indicates whether there are additional notebooks owned by the user. This field MUST be present.

HasMoreSharedNotebooks: Indicates whether there are additional notebooks shared with the user. This field MUST be present.

IncompleteSharedResults: Indicates whether the returned list of shared notebooks is incomplete (when SupportsPartialResults was specified in the request).

NewDefaultNotebookName: Name of the default personal notebook. This field MUST be present.

PagingToken: Specifies a paging token that can be used to obtain the next page of results. This field MUST be present.

PersonalNotebooks: A list of Notebook items consisting of all OneNote notebooks owned by the user, depending on the requested **QueryFilter**. This field MUST be present.

RootDavUrl: The **WebDAV URL** for the root folder on the server for the authenticated user. This field MUST be present.

SharedNotebooks: A list of Notebook items consisting of all OneNote notebooks shared with the user, depending on the requested **QueryFilter**. This field MUST be present.

3.1.4.3.3 Complex Types

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

Complex type	Description
ArrayOfNotebook	An array of **Notebook** items.
Notebook	Information about one notebook.

3.1.4.3.3.1   ArrayOfNotebook

Namespace: http://schemas.microsoft.com/clouddocuments

An array of **Notebook** items.

```
<xs:complexType name="ArrayOfNotebook" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Notebook" nillable="true"
type="i0:Notebook"/>
  </xs:sequence>
</xs:complexType>
```

Notebook: Information about one notebook.

3.1.4.3.3.2   Notebook

Namespace: http://schemas.microsoft.com/clouddocuments

Contains information about one notebook.

```
<xs:complexType name="Notebook" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="i0:Document">
      <xs:sequence>
        <xs:element minOccurs="0" name="IsDefaultNotebook" type="xs:boolean"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

IsDefaultNotebook: Indicates whether the notebook is the default notebook.

3.1.4.3.4 Simple Types

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

Simple type	Description
QueryFilter	An enumeration of filter values that describe notebook ownership.

3.1.4.3.4.1   QueryFilter

Namespace: http://schemas.microsoft.com/clouddocuments

This type is an enumeration of filter values that describe notebook ownership.

```
<xs:simpleType name="QueryFilter" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Mine"/>
    <xs:enumeration value="SharedWithMe"/>
    <xs:enumeration value="All"/>
  </xs:restriction>
</xs:simpleType>
```

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

Value	Meaning
Mine	The notebook is owned by the user.
SharedWithMe	The notebook is shared with the user.
All	The notebook is owned by or shared with the user.

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 GetProductInfo

This operation retrieves general information about the service including the product name, **URLs** for further information, and user interface strings. This operation MUST be available without requiring **authentication** by any lower-layer protocol.

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

```
<wsdl:operation name="GetProductInfo" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input wsaw:Action="GetProductInfo" name="GetProductInfoRequest"
message="i0:GetProductInfoRequest" xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetProductInfoRespons
e" name="GetProductInfoResponse" message="i0:GetProductInfoResponse"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetProductInfoServerE
rrorFault" name="ServerErrorFault"
message="i0:SkyDocsService_GetProductInfo_ServerErrorFault_FaultMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

3.1.4.4.1 Messages

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

Message	Description
GetProductInfoRequest	The request WSDL message for the **GetProductInfo WSDL operation**.
GetProductInfoResponse	The response WSDL message for the **GetProductInfo** WSDL operation.

3.1.4.4.1.1   GetProductInfoRequest

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

The **SOAP action** value is:

```
GetProductInfo
```

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

3.1.4.4.1.2   GetProductInfoResponse

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

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

3.1.4.4.2 Elements

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

Element	Description
GetProductInfoRequest	The input data for the **GetProductInfo WSDL operation**.
GetProductInfoResponse	The result data for the **GetProductInfo** WSDL operation.

3.1.4.4.2.1   GetProductInfoRequest

The **GetProductInfoRequest** element specifies the input data for the **GetProductInfo WSDL operation**.

```
<xs:element name="GetProductInfoRequest" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

BaseRequest: Basic information about the request.

3.1.4.4.2.2   GetProductInfoResponse

The **GetProductInfoResponse** element specifies the result data for the **GetProductInfo WSDL operation**.

```
<xs:element name="GetProductInfoResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="HomePageUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="IsSoapEnabled" type="xs:boolean"/>
      <xs:element minOccurs="0" name="IsSyncEnabled" type="xs:boolean"/>
      <xs:element minOccurs="0" name="LearnMoreUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="ProductName" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="ServiceDisabledErrorMessage" nillable="true"
type="xs:string"/>
      <xs:element minOccurs="0" name="ShortProductName" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="SignInMessage" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="SignUpMessage" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="SignUpUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="DavUrlMatch" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="LegacyDavUrlMatches" nillable="true"
xmlns:sa="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
type="sa:ArrayOfstring"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

HomePageUrl: The **URL** of the home page of the service. This URL is launched in a web browser and is not directly used by the client. This field MUST be present.

IsSoapEnabled: Indicates whether **SOAP** services other than **GetProductInfo** are enabled. This field MUST be present.

IsSyncEnabled: Indicates whether file synchronization, as described in [MS-FSSHTTP], is enabled. This field MUST be present.

LearnMoreUrl: A URL which allows the user to obtain more information about the service being provided. This URL is launched in a web browser and is not directly used by the client. This field MUST be present.

ProductName: The full name for the product for which the protocol is implemented. This field MUST be present.

ServiceDisabledErrorMessage: A string suitable for display to the user when the **IsSoapEnabled** and **IsSyncEnabled** fields indicate that the server does not support the interaction that the client requires. This field MUST be present.

ShortProductName: A short name for the product for which the protocol is implemented. This field MUST be present.

SignInMessage: A description of the type of account required by the user to use the service. This field MUST be present.

SignUpMessage: Informative string directing the user to the **SignUpUrl**. This field MUST be present.

SignUpUrl: A URL which allows the user to sign up for an account with the service. This URL is launched in a web browser and is not directly used by the client. This field MUST be present.

DavUrlMatch: A regular expression that describes the most up-to-date format of a **WebDAV** URL on the server. This field MUST be present.

LegacyDavUrlMatches: A list of regular expressions that describe valid legacy WebDAV URL formats on the server. This field MUST be present.

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 GetWebAccountInfo

This operation retrieves the set of **Library folders** available to the user.

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

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

```
  <wsdl:input wsaw:Action="GetWebAccountInfo" name="GetWebAccountInfoRequest"
message="i0:GetWebAccountInfoRequest"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetWebAccountInfoResp
onse" name="GetWebAccountInfoResponse" message="i0:GetWebAccountInfoResponse"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetWebAccountInfoServ
erErrorFault" name="ServerErrorFault"
message="i0:SkyDocsService GetWebAccountInfo ServerErrorFault FaultMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetWebAccountInfoTerm
sOfUseNotSignedFault" name="TermsOfUseNotSignedFault"
message="i0:SkyDocsService_GetWebAccountInfo_TermsOfUseNotSignedFault_FaultMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

Folders can contain both files and other folders. The **WebDAV** protocol, as specified in [RFC4918], supports enumeration of files and folders and is the assumed mechanism used to enumerate and traverse such structures.

This operation retrieves all Library folders, that is, those folders which have no parent folder, either owned by or shared with the **authenticated user**.

3.1.4.5.1 Messages

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

Message	Description
GetWebAccountInfoRequest	The request WSDL message for the **GetWebAccountInfo WSDL operation**.
GetWebAccountInfoResponse	The response WSDL message for the **GetWebAccountInfo** WSDL operation.

3.1.4.5.1.1   GetWebAccountInfoRequest

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

The **SOAP action** value is:

```
GetWebAccountInfo
```

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

3.1.4.5.1.2   GetWebAccountInfoResponse

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

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

3.1.4.5.2 Elements

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

Element	Description
GetWebAccountInfoRequest	The input data for the **GetWebAccountInfo WSDL operation**.
GetWebAccountInfoResponse	The result data for the **GetWebAccountInfo** WSDL operation.

3.1.4.5.2.1   GetWebAccountInfoRequest

The **GetWebAccountInfoRequest** element specifies the input data for the **GetWebAccountInfo WSDL operation**.

```
<xs:element name="GetWebAccountInfoRequest" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
      <xs:element minOccurs="0" name="GetReadWriteLibrariesOnly" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

BaseRequest: Basic information about the request.

GetReadWriteLibrariesOnly: Request only folders for which the user has an **AccessLevel** of **ReadWrite**.

3.1.4.5.2.2   GetWebAccountInfoResponse

The **GetWebAccountInfoResponse** element specifies the result data for the **GetWebAccountInfo WSDL operation**.

```
<xs:element name="GetWebAccountInfoResponse" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="AccountTitle" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="Libraries" nillable="true" type="i0:ArrayOfLibrary"/>
      <xs:element minOccurs="0" name="NewLibraryUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="ProductInfo" nillable="true" type="i0:ProductInfo"/>
      <xs:element minOccurs="0" name="SignedInUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="RootDavUrl" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="Documents" nillable="true" type="i0:ArrayOfDocument"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

AccountTitle: Name of the account, displayed to the user. This field MUST be present.

Libraries: A list of **Library** items consisting of all **Library folders** belonging to the user. If the client passed **GetReadWriteLibrariesOnly** as true, this list MUST only contain **Library** items which have an **AccessLevel** of **ReadWrite**; otherwise, the **Library** items have no **AccessLevel** restrictions. This field MUST be present.

NewLibraryUrl: A **URL** which allows the user to create a new folder. This URL is launched in a web browser and is not directly used by the client. This field MUST be present.

ProductInfo: General information about the server. This field MUST be present.

SignedInUser: The name of the **authenticated user**. This field MUST be present.

RootDavUrl: The **WebDAV** URL for the root folder on the server for the authenticated user. This field MUST be present.

Documents: A list of **Document** items consisting of all files belonging to the user. This field MUST be present.

3.1.4.5.3 Complex Types

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

Complex type	Description
ArrayOfDocument	An array of **Document** items.
ArrayOfLibrary	An array of **Library** items.
ProductInfo	General information about the server.

3.1.4.5.3.1   ArrayOfDocument

Namespace: http://schemas.microsoft.com/clouddocuments

An array of **Document** items.

```
<xs:complexType name="ArrayOfDocument" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Document" nillable="true"
type="i0:Document"/>
  </xs:sequence>
</xs:complexType>
```

Document: Information about one file.

3.1.4.5.3.2   ArrayOfLibrary

Namespace: http://schemas.microsoft.com/clouddocuments

An array of **Library** items.

```
<xs:complexType name="ArrayOfLibrary" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Library" nillable="true"
type="i0:Library"/>
  </xs:sequence>
</xs:complexType>
```

Library: Information about one folder.

3.1.4.5.3.3   ProductInfo

Namespace: http://schemas.microsoft.com/clouddocuments

General information about the server including the product name, **URLs** for further information, and user interface strings.

```
<xs:complexType name="ProductInfo" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" name="HomePageUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="IsSoapEnabled" type="xs:boolean"/>
    <xs:element minOccurs="0" name="IsSyncEnabled" type="xs:boolean"/>
    <xs:element minOccurs="0" name="LearnMoreUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="ProductName" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="ServiceDisabledErrorMessage" nillable="true"
type="xs:string"/>
    <xs:element minOccurs="0" name="ShortProductName" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="SignInMessage" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="SignUpMessage" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="SignUpUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="DavUrlMatch" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="LegacyDavUrlMatches" nillable="true"
xmlns:sa="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
type="sa:ArrayOfstring"/>
  </xs:sequence>
</xs:complexType>
```

HomePageUrl: The URL of the home page of the server. This URL is launched in a web browser and is not directly used by the client. This field MUST be present.

IsSoapEnabled: Indicates whether **SOAP** services are enabled. This field MUST be present.

IsSyncEnabled: Indicates whether file synchronization, as described in [MS-FSSHTTP], is enabled. This field MUST be present.

LearnMoreUrl: A URL which allows the user to obtain more information about the service being provided. This URL is launched in a web browser and is not directly used by the client. This field MUST be present.

ProductName: The full name for the product for which the protocol is implemented. This field MUST be present.

ServiceDisabledErrorMessage: A string suitable for display to the user when the **IsSoapEnabled** and **IsSyncEnabled** fields indicate that the server does not support the interaction that the client requires. This field MUST be present.

ShortProductName: A short name for the product for which the protocol is implemented. This field MUST be present.

SignInMessage: The type of account required by the user to use the service. This field MUST be present.

SignUpMessage: Informative string directing the user to the **SignUpUrl**. This field MUST be present.

SignUpUrl: A URL which allows the user to sign up for an account with the service. This URL is launched in a web browser and is not directly used by the client. This field MUST be present.

DavUrlMatch: A regular expression that describes the most up-to-date format of a **WebDAV** URL on the server. This field MUST be present.

LegacyDavUrlMatches: A list of regular expressions that describe valid legacy WebDAV URL formats on the server. This field MUST be present.

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 ResolveWebUrl

Converts a web URL used for sharing a notebook into a WebDAV URL for the notebook.<5>

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

```
<wsdl:operation name="ResolveWebUrl" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input wsaw:Action="ResolveWebUrl" name="ResolveWebUrlRequest"
message="i0:ResolveWebUrlRequest" xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/ResolveWebUrlResponse
" name="ResolveWebUrlResponse" message="i0:ResolveWebUrlResponse"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
  <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/ResolveWebUrlServerEr
rorFault" name="ServerErrorFault"
message="i0:SkyDocsService_ResolveWebUrl_ServerErrorFault_FaultMessage"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"/>
</wsdl:operation>
```

3.1.4.6.1 Messages

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

Message	Description
ResolveWebUrlRequest	The request WSDL message for the **ResolveWebUrl WSDL operation**.
ResolveWebUrlResponse	The response WSDL message for the **ResolveWebUrl** WSDL operation.

3.1.4.6.1.1   ResolveWebUrlRequest

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

The **SOAP action** value is:

```
ResolveWebUrl
```

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

3.1.4.6.1.2   ResolveWebUrlResponse

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

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

3.1.4.6.2 Elements

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

Element	Description
ResolveWebUrlRequest	The input data for the **ResolveWebUrl WSDL operation**.
ResolveWebUrlResponse	The result data for the **ResolveWebUrl** WSDL operation.

3.1.4.6.2.1   ResolveWebUrlRequest

The **ResolveWebUrlRequest** element specifies the input data for the **ResolveWebUrl WSDL operation**.

```
<xs:element name="ResolveWebUrlRequest" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
      <xs:element minOccurs="0" name="WebUrl" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

BaseRequest: Basic information about the request.

WebUrl: The URL used to share the notebook.

3.1.4.6.2.2   ResolveWebUrlResponse

The **ResolveWebUrlResponse** element specifies the result data for the **ResolveWebUrl WSDL operation**.

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

DavUrl: The URL used to access the folder via WebDAV, as specified in [RFC4918]. This field MUST be present.

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.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

This example shows a typical request from a client to retrieve the **Library folders** belonging to the **authenticated user** via the **GetWebAccountInfo** operation. The server in this example is for a product named "A. Datum Corporation File Service" and is located at https://example.com/SkyDocsService.svc.

Request:

```xml
<?xml version="1.0" encoding="utf-8"?><s:Envelope
xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <GetWebAccountInfoRequest xmlns="http://schemas.microsoft.com/clouddocuments">
      <BaseRequest xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <ClientAppId>Microsoft Office/14.0 (Windows NT 6.0; Microsoft Word 14.0.4999;
Pro)</ClientAppId>
        <Market>en-US</Market>
        <SkyDocsServiceVersion>v1.0</SkyDocsServiceVersion>
      </BaseRequest>
      <GetReadWriteLibrariesOnly>true</GetReadWriteLibrariesOnly>
    </GetWebAccountInfoRequest>
  </s:Body>
</s:Envelope>
```

Response:

```xml
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <GetWebAccountInfoResponse xmlns="http://schemas.microsoft.com/clouddocuments">
      <AccountTitle>Sample Account</AccountTitle>
      <Libraries xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <Library>
          <AccessLevel>ReadWrite</AccessLevel>
          <DavUrl>https://example.com/Document%20Folder</DavUrl>
          <DisplayName>Document Folder</DisplayName>
          <SharingLevelInfo>
            <Description>Shared with: Just me</Description>
            <Level>Private</Level>
          </SharingLevelInfo>
          <WebUrl>https://example.com/browse.aspx/Document%20Folder</WebUrl>
        </Library>
        <Library>
          <AccessLevel>ReadWrite</AccessLevel>
          <DavUrl>https://example.com/Favorites%20Folder</DavUrl>
          <DisplayName>Favorites Folder</DisplayName>
          <SharingLevelInfo>
            <Description>Shared with: Just me</Description>
            <Level>Private</Level>
          </SharingLevelInfo>
          <WebUrl>https://example.com/browse.aspx/Favorites%20Folder</WebUrl>
        </Library>
        <Library>
          <AccessLevel>Read</AccessLevel>
          <DavUrl>https://example.com/Shared%20Folder</DavUrl>
          <DisplayName>Shared Folder</DisplayName>
          <SharingLevelInfo>
            <Description>Shared with: People selected by me</Description>
            <Level>Shared</Level>
          </SharingLevelInfo>
          <WebUrl>https://example.com/browse.aspx/Shared%20Folder</WebUrl>
        </Library>
      </Libraries>
      <NewLibraryUrl>https://example.com/newfolder.aspx</NewLibraryUrl>
      <ProductInfo xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
```

```
            <HomePageUrl>http://example.com/HomePageUrl</HomePageUrl>
            <IsSoapEnabled>true</IsSoapEnabled>
            <IsSyncEnabled>true</IsSyncEnabled>
            <LearnMoreUrl>http://example.com/LearnMoreUrl</LearnMoreUrl>
            <ProductName>A. Datum Corporation File Service</ProductName>
            <ServiceDisabledErrorMessage>This feature is currently not available. Please try
again later.</ServiceDisabledErrorMessage>
            <ShortProductName>A. Datum Files</ShortProductName>
            <SignInMessage>Windows Live ID (Hotmail, Messenger, XBOX Live)</SignInMessage>
            <SignUpMessage>Don't have a Windows Live ID?</SignUpMessage>
            <SignUpUrl>http://example.com/SignUpUrl</SignUpUrl>
         </ProductInfo>
         <SignedInUser>Dana Brikley</SignedInUser>
      </GetWebAccountInfoResponse>
   </s:Body>
</s:Envelope>
```

5   Security

5.1   Security Considerations for Implementers

None.

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
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions xmlns:sa="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:i0="http://schemas.microsoft.com/clouddocuments"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
targetNamespace="http://schemas.microsoft.com/clouddocuments"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xs:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/clouddocuments">
      <xs:element name="GetWebAccountInfoRequest">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
            <xs:element minOccurs="0" name="GetReadWriteLibrariesOnly" type="xs:boolean"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:complexType name="OperationRequest">
        <xs:sequence>
          <xs:element minOccurs="0" name="ClientAppId" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="Market" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="SkyDocsServiceVersion" nillable="true"
type="xs:string"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="OperationRequest" nillable="true" type="i0:OperationRequest"/>
      <xs:element name="GetWebAccountInfoResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="AccountTitle" nillable="true" type="xs:string"/>
            <xs:element minOccurs="0" name="Libraries" nillable="true"
type="i0:ArrayOfLibrary"/>
            <xs:element minOccurs="0" name="NewLibraryUrl" nillable="true" type="xs:string"/>
            <xs:element minOccurs="0" name="ProductInfo" nillable="true"
type="i0:ProductInfo"/>
            <xs:element minOccurs="0" name="SignedInUser" nillable="true" type="xs:string"/>
            <xs:element minOccurs="0" name="RootDavUrl" nillable="true" type="xs:string"/>
            <xs:element minOccurs="0" name="Documents" nillable="true"
type="i0:ArrayOfDocument"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:complexType name="ArrayOfLibrary">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="Library" nillable="true"
type="i0:Library"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="ArrayOfLibrary" nillable="true" type="i0:ArrayOfLibrary"/>
      <xs:complexType name="Library">
        <xs:sequence>
          <xs:element minOccurs="0" name="AccessLevel" type="i0:AccessLevel"/>
          <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="DisplayName" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="SharingLevelInfo" nillable="true"
type="i0:SharingLevelInfo"/>
          <xs:element minOccurs="0" name="WebUrl" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="ResourceId" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="LastModifiedDate" type="xs:dateTime"/>
        </xs:sequence>
```

```
      </xs:complexType>
      <xs:element name="Library" nillable="true" type="i0:Library"/>
      <xs:simpleType name="AccessLevel">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Read"/>
          <xs:enumeration value="ReadWrite"/>
          <xs:enumeration value="None"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:element name="AccessLevel" nillable="true" type="i0:AccessLevel"/>
      <xs:complexType name="SharingLevelInfo">
        <xs:sequence>
          <xs:element minOccurs="0" name="Description" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="Level" type="i0:SharingLevel"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="SharingLevelInfo" nillable="true" type="i0:SharingLevelInfo"/>
      <xs:simpleType name="SharingLevel">
        <xs:restriction base="xs:string">
          <xs:enumeration value="Public"/>
          <xs:enumeration value="Private"/>
          <xs:enumeration value="Shared"/>
          <xs:enumeration value="PublicUnlisted"/>
        </xs:restriction>
      </xs:simpleType>
      <xs:element name="SharingLevel" nillable="true" type="i0:SharingLevel"/>
      <xs:complexType name="SharedLibrary">
        <xs:complexContent mixed="false">
          <xs:extension base="i0:Library">
            <xs:sequence>
              <xs:element minOccurs="0" name="Owner" nillable="true" type="xs:string"/>
            </xs:sequence>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:element name="SharedLibrary" nillable="true" type="i0:SharedLibrary"/>
      <xs:complexType name="ProductInfo">
        <xs:sequence>
          <xs:element minOccurs="0" name="HomePageUrl" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="IsSoapEnabled" type="xs:boolean"/>
          <xs:element minOccurs="0" name="IsSyncEnabled" type="xs:boolean"/>
          <xs:element minOccurs="0" name="LearnMoreUrl" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="ProductName" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="ServiceDisabledErrorMessage" nillable="true"
type="xs:string"/>
          <xs:element minOccurs="0" name="ShortProductName" nillable="true"
type="xs:string"/>
          <xs:element minOccurs="0" name="SignInMessage" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="SignUpMessage" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="SignUpUrl" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="DavUrlMatch" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="LegacyDavUrlMatches" nillable="true"
type="sa:ArrayOfstring"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="ProductInfo" nillable="true" type="i0:ProductInfo"/>
      <xs:complexType name="ArrayOfDocument">
        <xs:sequence>
          <xs:element minOccurs="0" maxOccurs="unbounded" name="Document" nillable="true"
type="i0:Document"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="ArrayOfDocument" nillable="true" type="i0:ArrayOfDocument"/>
      <xs:complexType name="Document">
        <xs:sequence>
          <xs:element minOccurs="0" name="AccessLevel" type="i0:AccessLevel"/>
          <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="DisplayName" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="IsNotebook" nillable="true" type="xs:boolean"/>
```

```
          <xs:element minOccurs="0" name="LastModifiedDate" type="xs:dateTime"/>
          <xs:element minOccurs="0" name="Owner" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="ResourceId" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="SharingLevelInfo" nillable="true"
type="i0:SharingLevelInfo"/>
          <xs:element minOccurs="0" name="ViewUrl" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="WacUrl" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="WebUrl" nillable="true" type="xs:string"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="Document" nillable="true" type="i0:Document"/>
      <xs:complexType name="Notebook">
        <xs:complexContent mixed="false">
          <xs:extension base="i0:Document">
            <xs:sequence>
              <xs:element minOccurs="0" name="IsDefaultNotebook" type="xs:boolean"/>
            </xs:sequence>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:element name="Notebook" nillable="true" type="i0:Notebook"/>
      <xs:complexType name="ServerError">
        <xs:sequence>
          <xs:element minOccurs="0" name="FailureDetail" nillable="true" type="xs:string"/>
          <xs:element minOccurs="0" name="MachineName" nillable="true" type="xs:string"/>
        </xs:sequence>
      </xs:complexType>
      <xs:element name="ServerError" nillable="true" type="i0:ServerError"/>
      <xs:complexType name="TermsOfUseNotSigned">
        <xs:complexContent mixed="false">
          <xs:extension base="i0:ServerError">
            <xs:sequence>
              <xs:element minOccurs="0" name="TermsOfUseUrl" nillable="true"
type="xs:string"/>
            </xs:sequence>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
      <xs:element name="TermsOfUseNotSigned" nillable="true" type="i0:TermsOfUseNotSigned"/>
      <xs:element name="GetItemInfoRequest">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
            <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetItemInfoResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="Breadcrumbs" nillable="true"
type="sa:ArrayOfstring"/>
            <xs:element minOccurs="0" name="ItemViewUrl" nillable="true" type="xs:string"/>
            <xs:element minOccurs="0" name="ItemWacUrl" nillable="true" type="xs:string"/>
            <xs:element minOccurs="0" name="ItemWebUrl" nillable="true" type="xs:string"/>
            <xs:element minOccurs="0" name="Library" nillable="true" type="i0:Library"/>
            <xs:element minOccurs="0" name="SignedInUser" nillable="true" type="xs:string"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="GetChangesSinceTokenRequest">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="BaseRequest" nillable="true"
type="i0:OperationRequest"/>
            <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
            <xs:element minOccurs="0" name="SyncToken" nillable="true" type="xs:string"/>
          </xs:sequence>
```

```
          </xs:complexType>
        </xs:element>
        <xs:element name="GetChangesSinceTokenResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="MinAmIAloneSyncInterval" type="xs:int"/>
              <xs:element minOccurs="0" name="MinBackgroundSyncInterval" type="xs:int"/>
              <xs:element minOccurs="0" name="MinRealtimeSyncInterval" type="xs:int"/>
              <xs:element minOccurs="0" name="SyncData" nillable="true">
                <xs:complexType>
                  <xs:sequence>
                    <xs:any minOccurs="0" processContents="lax"/>
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
              <xs:element minOccurs="0" name="SyncToken" nillable="true" type="xs:string"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="GetProductInfoRequest">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="BaseRequest" nillable="true"
  type="i0:OperationRequest"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="GetProductInfoResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="HomePageUrl" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="IsSoapEnabled" type="xs:boolean"/>
              <xs:element minOccurs="0" name="IsSyncEnabled" type="xs:boolean"/>
              <xs:element minOccurs="0" name="LearnMoreUrl" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="ProductName" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="ServiceDisabledErrorMessage" nillable="true"
  type="xs:string"/>
              <xs:element minOccurs="0" name="ShortProductName" nillable="true"
  type="xs:string"/>
              <xs:element minOccurs="0" name="SignInMessage" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="SignUpMessage" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="SignUpUrl" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="DavUrlMatch" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="LegacyDavUrlMatches" nillable="true"
  type="sa:ArrayOfstring"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="ResolveWebUrlRequest">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="BaseRequest" nillable="true"
  type="i0:OperationRequest"/>
              <xs:element minOccurs="0" name="WebUrl" nillable="true" type="xs:string"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="ResolveWebUrlResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="DavUrl" nillable="true" type="xs:string"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="GetNotebooksRequest">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="BaseRequest" nillable="true"
  type="i0:OperationRequest"/>
```

```
              <xs:element minOccurs="0" name="PagingToken" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="QueryFilter" type="i0:QueryFilter"/>
              <xs:element minOccurs="0" name="SupportsPartialResults" type="xs:boolean"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:simpleType name="QueryFilter">
          <xs:restriction base="xs:string">
            <xs:enumeration value="Mine"/>
            <xs:enumeration value="SharedWithMe"/>
            <xs:enumeration value="All"/>
          </xs:restriction>
        </xs:simpleType>
        <xs:element name="QueryFilter" nillable="true" type="i0:QueryFilter"/>
        <xs:element name="GetNotebooksResponse">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="0" name="HasMorePersonalNotebooks" type="xs:boolean"/>
              <xs:element minOccurs="0" name="HasMoreSharedNotebooks" type="xs:boolean"/>
              <xs:element minOccurs="0" name="IncompleteSharedResults" type="xs:boolean"/>
              <xs:element minOccurs="0" name="NewDefaultNotebookName" nillable="true"
type="xs:string"/>
              <xs:element minOccurs="0" name="PagingToken" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="PersonalNotebooks" nillable="true"
type="i0:ArrayOfNotebook"/>
              <xs:element minOccurs="0" name="RootDavUrl" nillable="true" type="xs:string"/>
              <xs:element minOccurs="0" name="SharedNotebooks" nillable="true"
type="i0:ArrayOfNotebook"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
        <xs:complexType name="ArrayOfNotebook">
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="unbounded" name="Notebook" nillable="true"
type="i0:Notebook"/>
          </xs:sequence>
        </xs:complexType>
        <xs:element name="ArrayOfNotebook" nillable="true" type="i0:ArrayOfNotebook"/>
    </xs:schema>
  </wsdl:types>
  <wsdl:portType name="SkyDocsService">
    <wsdl:operation name="GetWebAccountInfo">
      <wsdl:input wsaw:Action="GetWebAccountInfo" name="GetWebAccountInfoRequest"
message="i0:GetWebAccountInfoRequest"/>
      <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetWebAccountInfoResp
onse" name="GetWebAccountInfoResponse" message="i0:GetWebAccountInfoResponse"/>
      <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetWebAccountInfoServ
erErrorFault" name="ServerErrorFault"
message="i0:SkyDocsService_GetWebAccountInfo_ServerErrorFault_FaultMessage"/>
      <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetWebAccountInfoTerm
sOfUseNotSignedFault" name="TermsOfUseNotSignedFault"
message="i0:SkyDocsService_GetWebAccountInfo_TermsOfUseNotSignedFault_FaultMessage"/>
    </wsdl:operation>
    <wsdl:operation name="GetItemInfo">
      <wsdl:input wsaw:Action="GetItemInfo" name="GetItemInfoRequest"
message="i0:GetItemInfoRequest"/>
      <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetItemInfoResponse"
name="GetItemInfoResponse" message="i0:GetItemInfoResponse"/>
      <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetItemInfoServerErro
rFault" name="ServerErrorFault"
message="i0:SkyDocsService_GetItemInfo_ServerErrorFault_FaultMessage"/>
    </wsdl:operation>
    <wsdl:operation name="GetChangesSinceToken">
```

```
      <wsdl:input wsaw:Action="GetChangesSinceToken" name="GetChangesSinceTokenRequest"
message="i0:GetChangesSinceTokenRequest"/>
      <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetChangesSinceTokenR
esponse" name="GetChangesSinceTokenResponse" message="i0:GetChangesSinceTokenResponse"/>
      <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetChangesSinceTokenS
erverErrorFault" name="ServerErrorFault"
message="i0:SkyDocsService_GetChangesSinceToken_ServerErrorFault_FaultMessage"/>
    </wsdl:operation>
    <wsdl:operation name="GetProductInfo">
      <wsdl:input wsaw:Action="GetProductInfo" name="GetProductInfoRequest"
message="i0:GetProductInfoRequest"/>
      <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetProductInfoRespons
e" name="GetProductInfoResponse" message="i0:GetProductInfoResponse"/>
      <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetProductInfoServerE
rrorFault" name="ServerErrorFault"
message="i0:SkyDocsService_GetProductInfo_ServerErrorFault_FaultMessage"/>
    </wsdl:operation>
    <wsdl:operation name="ResolveWebUrl">
      <wsdl:input wsaw:Action="ResolveWebUrl" name="ResolveWebUrlRequest"
message="i0:ResolveWebUrlRequest"/>
      <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/ResolveWebUrlResponse
" name="ResolveWebUrlResponse" message="i0:ResolveWebUrlResponse"/>
      <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/ResolveWebUrlServerEr
rorFault" name="ServerErrorFault"
message="i0:SkyDocsService_ResolveWebUrl_ServerErrorFault_FaultMessage"/>
    </wsdl:operation>
    <wsdl:operation name="GetNotebooks">
      <wsdl:input wsaw:Action="GetNotebooks" name="GetNotebooksRequest"
message="i0:GetNotebooksRequest"/>
      <wsdl:output
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetNotebooksResponse"
name="GetNotebooksResponse" message="i0:GetNotebooksResponse"/>
      <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetNotebooksServerErr
orFault" name="ServerErrorFault"
message="i0:SkyDocsService_GetNotebooks_ServerErrorFault_FaultMessage"/>
      <wsdl:fault
wsaw:Action="http://schemas.microsoft.com/clouddocuments/SkyDocsService/GetNotebooksTermsOfUs
eNotSignedFault" name="TermsOfUseNotSignedFault"
message="i0:SkyDocsService_GetNotebooks_TermsOfUseNotSignedFault_FaultMessage"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="BasicHttpBinding_SkyDocsService" type="i0:SkyDocsService">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="GetWebAccountInfo">
      <soap:operation soapAction="GetWebAccountInfo" style="document"/>
      <wsdl:input name="GetWebAccountInfoRequest">
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output name="GetWebAccountInfoResponse">
        <soap:body use="literal"/>
      </wsdl:output>
      <wsdl:fault name="ServerErrorFault">
        <soap:fault use="literal" name="ServerErrorFault" namespace=""/>
      </wsdl:fault>
      <wsdl:fault name="TermsOfUseNotSignedFault">
        <soap:fault use="literal" name="TermsOfUseNotSignedFault" namespace=""/>
      </wsdl:fault>
    </wsdl:operation>
    <wsdl:operation name="GetItemInfo">
      <soap:operation soapAction="GetItemInfo" style="document"/>
      <wsdl:input name="GetItemInfoRequest">
        <soap:body use="literal"/>
```

```
        </wsdl:input>
        <wsdl:output name="GetItemInfoResponse">
          <soap:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="ServerErrorFault">
          <soap:fault use="literal" name="ServerErrorFault" namespace=""/>
        </wsdl:fault>
      </wsdl:operation>
      <wsdl:operation name="GetChangesSinceToken">
        <soap:operation soapAction="GetChangesSinceToken" style="document"/>
        <wsdl:input name="GetChangesSinceTokenRequest">
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output name="GetChangesSinceTokenResponse">
          <soap:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="ServerErrorFault">
          <soap:fault use="literal" name="ServerErrorFault" namespace=""/>
        </wsdl:fault>
      </wsdl:operation>
      <wsdl:operation name="GetProductInfo">
        <soap:operation soapAction="GetProductInfo" style="document"/>
        <wsdl:input name="GetProductInfoRequest">
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output name="GetProductInfoResponse">
          <soap:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="ServerErrorFault">
          <soap:fault use="literal" name="ServerErrorFault" namespace=""/>
        </wsdl:fault>
      </wsdl:operation>
      <wsdl:operation name="ResolveWebUrl">
        <soap:operation soapAction="ResolveWebUrl" style="document"/>
        <wsdl:input name="ResolveWebUrlRequest">
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output name="ResolveWebUrlResponse">
          <soap:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="ServerErrorFault">
          <soap:fault use="literal" name="ServerErrorFault" namespace=""/>
        </wsdl:fault>
      </wsdl:operation>
      <wsdl:operation name="GetNotebooks">
        <soap:operation soapAction="GetNotebooks" style="document"/>
        <wsdl:input name="GetNotebooksRequest">
          <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output name="GetNotebooksResponse">
          <soap:body use="literal"/>
        </wsdl:output>
        <wsdl:fault name="ServerErrorFault">
          <soap:fault use="literal" name="ServerErrorFault" namespace=""/>
        </wsdl:fault>
        <wsdl:fault name="TermsOfUseNotSignedFault">
          <soap:fault use="literal" name="TermsOfUseNotSignedFault" namespace=""/>
        </wsdl:fault>
      </wsdl:operation>
    </wsdl:binding>
    <wsdl:message name="GetChangesSinceTokenRequest">
      <wsdl:part name="parameters" element="i0:GetChangesSinceTokenRequest"/>
    </wsdl:message>
    <wsdl:message name="GetChangesSinceTokenResponse">
      <wsdl:part name="parameters" element="i0:GetChangesSinceTokenResponse"/>
    </wsdl:message>
    <wsdl:message name="GetItemInfoRequest">
      <wsdl:part name="parameters" element="i0:GetItemInfoRequest"/>
    </wsdl:message>
```

```
<wsdl:message name="GetItemInfoResponse">
  <wsdl:part name="parameters" element="i0:GetItemInfoResponse"/>
</wsdl:message>
<wsdl:message name="GetNotebooksRequest">
  <wsdl:part name="parameters" element="i0:GetNotebooksRequest"/>
</wsdl:message>
<wsdl:message name="GetNotebooksResponse">
  <wsdl:part name="parameters" element="i0:GetNotebooksResponse"/>
</wsdl:message>
<wsdl:message name="GetProductInfoRequest">
  <wsdl:part name="parameters" element="i0:GetProductInfoRequest"/>
</wsdl:message>
<wsdl:message name="GetProductInfoResponse">
  <wsdl:part name="parameters" element="i0:GetProductInfoResponse"/>
</wsdl:message>
<wsdl:message name="GetWebAccountInfoRequest">
  <wsdl:part name="parameters" element="i0:GetWebAccountInfoRequest"/>
</wsdl:message>
<wsdl:message name="GetWebAccountInfoResponse">
  <wsdl:part name="parameters" element="i0:GetWebAccountInfoResponse"/>
</wsdl:message>
<wsdl:message name="ResolveWebUrlRequest">
  <wsdl:part name="parameters" element="i0:ResolveWebUrlRequest"/>
</wsdl:message>
<wsdl:message name="ResolveWebUrlResponse">
  <wsdl:part name="parameters" element="i0:ResolveWebUrlResponse"/>
</wsdl:message>
<wsdl:message name="SkyDocsService_GetChangesSinceToken_ServerErrorFault_FaultMessage">
  <wsdl:part name="detail" element="i0:ServerError"/>
</wsdl:message>
<wsdl:message name="SkyDocsService_GetItemInfo_ServerErrorFault_FaultMessage">
  <wsdl:part name="detail" element="i0:ServerError"/>
</wsdl:message>
<wsdl:message name="SkyDocsService_GetNotebooks_ServerErrorFault_FaultMessage">
  <wsdl:part name="detail" element="i0:ServerError"/>
</wsdl:message>
<wsdl:message name="SkyDocsService_GetNotebooks_TermsOfUseNotSignedFault_FaultMessage">
  <wsdl:part name="detail" element="i0:TermsOfUseNotSigned"/>
</wsdl:message>
<wsdl:message name="SkyDocsService_GetProductInfo_ServerErrorFault_FaultMessage">
  <wsdl:part name="detail" element="i0:ServerError"/>
</wsdl:message>
<wsdl:message name="SkyDocsService_GetWebAccountInfo_ServerErrorFault_FaultMessage">
  <wsdl:part name="detail" element="i0:ServerError"/>
</wsdl:message>
<wsdl:message
name="SkyDocsService_GetWebAccountInfo_TermsOfUseNotSignedFault_FaultMessage">
  <wsdl:part name="detail" element="i0:TermsOfUseNotSigned"/>
</wsdl:message>
<wsdl:message name="SkyDocsService_ResolveWebUrl_ServerErrorFault_FaultMessage">
  <wsdl:part name="detail" element="i0:ServerError"/>
</wsdl:message>
</wsdl:definitions>
```

7   Appendix B: Full XML Schema

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

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:sa="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType name="ArrayOfstring">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="string" nillable="true"
type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="ArrayOfstring" nillable="true" type="sa:ArrayOfstring"/>
</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 updates to those products.

- Microsoft Office 2010 suites

- Microsoft Office 2013

- Microsoft Office 2016

- Windows 8.1 Update

- Windows 10 operating system

- Microsoft Office 2019

- Microsoft Office 2021

- Windows 11 operating system

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

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

<1> Section 2.1.1: Microsoft OneNote 2010 and Microsoft OneDrive use **X-Office_Authorization_Check**.

<2> Section 3.1.4: The **GetNotebooks** operation is only used in Microsoft OneNote 2013.

<3> Section 3.1.4: The **ResolveWebUrl** operation is only used in OneNote 2013.

<4> Section 3.1.4.3: The **GetNotebooks** operation is only used in OneNote 2013.

<5> Section 3.1.4.6: The **ResolveWebUrl** operation is only used in OneNote 2013.

9   Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as Major, Minor, or None.

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.
- A document revision that captures changes to protocol functionality.

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 **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

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

Section	Description	Revision class
8 Appendix C: Product Behavior	Updated list of supported products.	major
8 Appendix C: Product Behavior	Updated list of supported products.	Major

10 Index