[MS-PLSP]:

Published Links Web Service Protocol

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Revision Summary

Date	Revision History	Revision Class	Comments
4/4/2008	0.1	New	Initial Availability
6/27/2008	1.0	Major	Revised and edited the technical content
12/12/2008	1.01	Editorial	Revised and edited the technical content
7/13/2009	1.02	Major	Revised and edited the technical content
8/28/2009	1.03	Editorial	Revised and edited the technical content
11/6/2009	1.04	Editorial	Revised and edited the technical content
2/19/2010	2.0	Minor	Updated the technical content
3/31/2010	2.01	Major	Updated and revised the technical content
4/30/2010	2.02	Editorial	Revised and edited the technical content
6/7/2010	2.03	Editorial	Revised and edited the technical content
6/29/2010	2.04	Editorial	Changed language and formatting in the technical content.
7/23/2010	2.04	None	No changes to the meaning, language, or formatting of the technical content.
9/27/2010	2.04	None	No changes to the meaning, language, or formatting of the technical content.
11/15/2010	2.04	None	No changes to the meaning, language, or formatting of the technical content.
12/17/2010	2.04	None	No changes to the meaning, language, or formatting of the technical content.
3/18/2011	2.04	None	No changes to the meaning, language, or formatting of the technical content.
6/10/2011	2.04	None	No changes to the meaning, language, or formatting of the technical content.
1/20/2012	2.5	Minor	Clarified the meaning of the technical content.
4/11/2012	2.5	None	No changes to the meaning, language, or formatting of the technical content.
7/16/2012	2.5	None	No changes to the meaning, language, or formatting of the technical content.
9/12/2012	2.5	None	No changes to the meaning, language, or formatting of the technical content.
10/8/2012	2.6	Minor	Clarified the meaning of the technical content.
2/11/2013	2.6	None	No changes to the meaning, language, or formatting of the technical content.
7/30/2013	2.7	Minor	Clarified the meaning of the technical content.
11/18/2013	2.7	None	No changes to the meaning, language, or formatting of the technical content.

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Date	Revision History	Revision Class	Comments
2/10/2014	2.7	None	No changes to the meaning, language, or formatting of the technical content.
4/30/2014	2.7	None	No changes to the meaning, language, or formatting of the technical content.
7/31/2014	2.7	None	No changes to the meaning, language, or formatting of the technical content.
10/30/2014	2.7	None	No changes to the meaning, language, or formatting of the technical content.
3/16/2015	3.0	Major	Significantly changed the technical content.
2/26/2016	4.0	Major	Significantly changed the technical content.
7/15/2016	4.0	None	No changes to the meaning, language, or formatting of the technical content.
9/14/2016	4.0	None	No changes to the meaning, language, or formatting of the technical content.
7/24/2018	5.0	Major	Significantly changed the technical content.
10/1/2018	6.0	Major	Significantly changed the technical content.
6/18/2019	6.0	None	No changes to the meaning, language, or formatting of the technical content.
4/22/2021	7.0	Major	Significantly changed the technical content.
7/20/2021	8.0	Major	Significantly changed the technical content.
8/17/2021	9.0	Major	Significantly changed the technical content.
10/5/2021	9.0	None	No changes to the meaning, language, or formatting of the technical content.
2/15/2022	9.0	None	No changes to the meaning, language, or formatting of the technical content.
4/16/2024	10.0	Major	Significantly changed the technical content.
8/20/2024	11.0	Major	Significantly changed the technical content.

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1 Introduction

The Published Links Web Service Protocol allows a protocol client to retrieve a list of potentially useful URLs and the descriptive details about each URL.

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:

data connection library: A SharePoint library that contains a collection of universal data connection (.udcx) and Office data connection (.odc) files.

Document Center: A document library template that is preconfigured to store a large quantity of documents.

document library: A type of list that is a container for documents and folders.

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].

list: A container within a SharePoint site that stores list items. A list has a customizable schema that is composed of one or more fields.

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

portal site: A type of SharePoint site that can act as an umbrella to other sites and can be used by a large organization.

profile site: A page that can display detailed information about a user by using a URL prefix that can be concatenated with a login name, email address, or GUID that identifies the user.

Project Workspace site: A site that can be used to manage a project.

site: A group of related pages and data within a SharePoint site collection. The structure and content of a site is based on a site definition. Also referred to as SharePoint site and web site.

Slide Library: A type of a document library that is optimized for storing and reusing presentation slides that conform to the format described in [ISO/IEC-29500:2008].

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.

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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 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.

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-TMPLDISC] Microsoft Corporation, "Template Discovery Web Service Protocol".

[RFC1738] Berners-Lee, T., Masinter, L., and McCahill, M., Eds., "Uniform Resource Locators (URL)", RFC 1738, December 1994, https://www.rfc-editor.org/info/rfc1738

[RFC1945] Berners-Lee, T., Fielding, R., and Frystyk, H., "Hypertext Transfer Protocol -- HTTP/1.0", RFC 1945, May 1996, https://www.rfc-editor.org/info/rfc1945

[RFC2045] Freed, N., and Borenstein, N., "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies", RFC 2045, November 1996, https://www.rfc-editor.org/info/rfc2045

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

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

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", W3C Note, May 2000, https://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/

[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

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, https://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, https://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, https://www.w3.org/TR/2004/REC-xmlschema-1-20041028/

[XMLSCHEMA1] Thompson, H., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, https://www.w3.org/TR/2001/REC-xmlschema-1-20010502/

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

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

1.2.2 Informative References

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

1.3 Overview

This protocol allows a protocol client to retrieve a list of **URLs** and descriptive details about each URL. A protocol client can choose to inspect the descriptive details to decide whether the URL is useful for its particular application. In all cases, "user" refers to the user account calling the service which has permissions to access the **site**.

The types of URLs returned by default are:

- Sites and **lists** that an administrator has specified.
- Sites where the user is a member.
- The user's **personal site**.
- The user's **profile site**.
- The user's **document libraries**.
- Document libraries from which document templates can be downloaded.

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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:

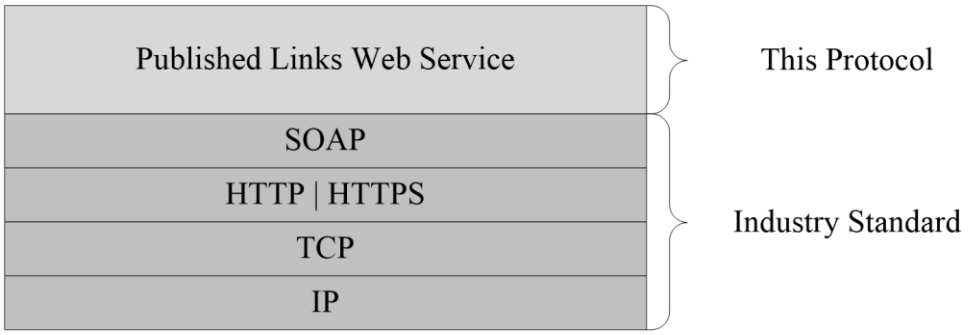

Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a **site** that is identified by a URL that is known by protocol clients. The protocol server endpoint is formed by appending "_vti_bin/publishedlinksservice.asmx" to the URL of the site, for example, http://www.contoso.com/Repository/_vti_bin/publishedlinksservice.asmx.

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

1.6 Applicability Statement

This protocol is applicable in scenarios where a protocol client can use a list of URLs. The protocol is intended for scenarios that include that of a protocol client displaying the list of URLs to the user calling the service. Thus, it would be an inappropriate use of this protocol for the protocol server to return more than 100 URLs to the client.

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses multiple transports with **SOAP** as specified in section 2.1.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

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2 Messages

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 using HTTP Status Codes as specified in [RFC2616], section 10 or using **SOAP faults** as specified either in [SOAP1.1], section 4.4 or in [SOAP1.2-1/2007], section 5.4.

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 protocol specifies and references **XML namespaces** using the mechanisms specified in [XMLNS]. Although this document associates an **XML namespace prefix** for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
http	http://schemas.xmlsoap.org/wsdl/http/	[RFC1945]
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
mime	http://schemas.xmlsoap.org/wsdl/mime/	[RFC2045]
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	[SOAP1.2-1/2007] [SOAP1.2-2/2007]
soapenc	http://schemas.xmlsoap.org/soap/encoding/	[SOAP1.2-1/2007] [SOAP1.2-2/2007]
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
tm	http://microsoft.com/wsdl/mime/textMatching/	[WSDL]
tns	http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksService	
(none)	http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksService	

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2.2.2 Messages

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

2.2.3 Elements

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

2.2.4 Complex Types

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

2.2.5 Simple Types

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

2.2.6 Attributes

This specification does not define any common **XML schema** attribute definitions.

2.2.7 Groups

This specification does not define any common **XML schema** group definitions.

2.2.8 Attribute Groups

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

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3 Protocol Details

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

Except where specified, protocol clients SHOULD interpret the **HTTP** Status Codes that the protocol server returns as specified in [RFC2616], section 10.

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

This protocol allows protocol servers to perform implementation-specific authorization checks and to notify protocol clients of authorization faults by using HTTP Status Codes or SOAP faults.

3.1 Server Details

3.1.1 Abstract Data Model

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

The protocol server maintains a table of useful URLs and descriptive details for each URL.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

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

Operation	Description
GetLinks	Retrieves a list of URLs and descriptive details about each URL.

3.1.4.1 GetLinks

This operation is used to retrieve a list of URLs relevant to the user calling the service and descriptive details about each URL. Relevant links are those that are either directly related to the user (like his personal site or personal document library) or that have been published by the **site** administrator.

```
<wsdl:operation name="GetLinks">
      <wsdl:input message="tns:GetLinksSoapIn" />
      <wsdl:output message="tns:GetLinksSoapOut" />
```


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```
</wsdl:operation>
```

The protocol client sends a **GetLinksSoapIn** request message and the protocol server MUST respond with a **GetLinksSoapOut** response message.

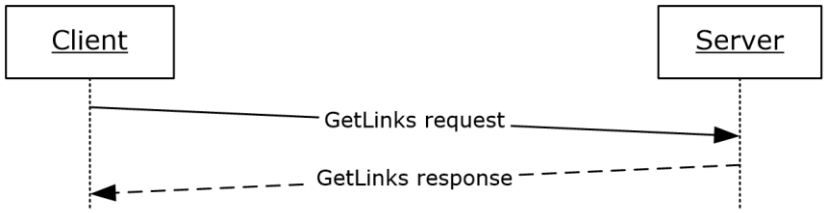

Figure 2: High-level sequence diagram for Published Links Web Service Protocol

3.1.4.1.1 Messages

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

Message	Description
GetLinksSoapIn	The request message for the **GetLinks** operation.
GetLinksSoapOut	The response message for the **GetLinks** operation.

3.1.4.1.1.1 GetLinksSoapIn

The request message for the **GetLinks** operation. The **SOAP action** value of the message is defined as:

```
http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksService/GetLinks
```

The **SOAP body** contains a **GetLinks** element.

3.1.4.1.1.2 GetLinksSoapOut

The response message for the **GetLinks** operation.

The **SOAP body** contains a **GetLinksResponse** element.

3.1.4.1.2 Elements

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

Element	Description
GetLinks	Used to issue the **GetLinks** request.

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Element	Description
GetLinksResponse	The response to the **GetLinks** request.

3.1.4.1.2.1 GetLinks

The **GetLinks** element is used to issue the **GetLinks** request.

```
<s:element name="GetLinks">
  <s:complexType/>
</s:element>
```

This element MUST NOT contain child elements.

3.1.4.1.2.2 GetLinksResponse

The **GetLinksResponse** element is returned as the response to the **GetLinks** request.

```
<s:element name="GetLinksResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetLinksResult" type="tns:ArrayOfServerLink" minOccurs="0"
maxOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

GetLinksResult: List of URLs and descriptive details for each URL.

3.1.4.1.3 Complex Types

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

Complex type	Description
ArrayOfServerLink	An array of **ServerLink** elements.
ServerLink	A URL and descriptive details about the URL.

3.1.4.1.3.1 ArrayOfServerLink

The **ArrayOfServerLink** complex type represents an array of **ServerLink** elements.

```
<s:complexType name="ArrayOfServerLink">
  <s:sequence>
    <s:element name="ServerLink" type="tns:ServerLink" nillable="true" minOccurs="0"
maxOccurs="unbounded"/>
  </s:sequence>
</s:complexType>
```

ServerLink: See section 3.1.4.1.3.2.

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3.1.4.1.3.2 ServerLink

The **ServerLink** complex type represents a URL and descriptive details about the URL.

```
<s:complexType name="ServerLink">
  <s:sequence>
    <s:element name="Title" type="s:string" minOccurs="1" maxOccurs="1"/>
    <s:element name="Url" type="s:string" minOccurs="1" maxOccurs="1"/>
    <s:element name="LinkType" type="s:long" minOccurs="1" maxOccurs="1"/>
    <s:element name="IsMember" type="s:boolean" minOccurs="1" maxOccurs="1"/>
    <s:element name="IsPublished" type="s:boolean" minOccurs="1" maxOccurs="1"/>
  </s:sequence>
</s:complexType>
```

Title: Title of the location corresponding to the URL. The value MUST NOT be null or empty. The string MUST be less than 255 characters in length and MUST NOT contain any of the following characters: \ / : * ? " < > |.

Url: The URL of the location. The value MUST NOT be null or empty and MUST conform to the URL format, as specified in [RFC1738].

LinkType: The type of the URL. The value MUST be set to one of the following values:

- 0x0000000000000001: **site**
- 0x0000000000000002: **personal site**
- 0x0000000000000004: **portal site**
- 0x0000000000000008: **Project Workspace site**
- 0x0000000001000000: **Document Center**
- 0x0000000002000000: **document library**
- 0x0000000004000000: **data connection library**
- 0x0000000008000000: **Slide Library**
- 0x0100000000000000: **profile site**
- 0x0200000000000000: Personal Documents library
- 0x1000000002000000: document library template source
- 0x1000000010000000: asset library template source
- 0x1000000020000000: process repository template source

IsMember: Indicates whether the user credentials being used to call the service are listed in the Members group of the site on which the service is being called.

IsPublished: This element has no meaning and MUST be ignored by the protocol client.

Additional Requirements:

- Three "template source" values are shown in the preceding list: **document library template source**, **asset library template source**, and **process repository template source**. If the protocol server sets **LinkType** to one of these values, the server MUST support the Template Discovery Web Service Protocol [MS-TMPLDISC].

3.1.4.1.4 Simple Types

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None.

3.1.4.1.5 Attributes

None.

3.1.4.1.6 Groups

None.

3.1.4.1.7 Attribute Groups

None.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

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4 Protocol Examples

A protocol client might construct the following **WSDL** message to retrieve a list of URLs.

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

The protocol server returns the list of URLs in the form of the following WSDL message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <GetLinksResponse
xmlns="http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksService">
      <GetLinksResult>
        <ServerLink>
          <Title>My Site</Title>
          <Url>http://contoso:80/personal/bob/</Url>
          <LinkType>2</LinkType>
          <IsMember>true</IsMember>
          <IsPublished>true</IsPublished>
        </ServerLink>
        <ServerLink>
          <Title>Profile Site</Title>
          <Url>http://contoso:80/mysite/Person.aspx?user=</Url>
          <LinkType>72057594037927936</LinkType>
          <IsMember>false</IsMember>
          <IsPublished>true</IsPublished>
        </ServerLink>
        <ServerLink>
          <Title>Shared Documents</Title>
          <Url>http://contoso:80/personal/bob/Shared%20Documents</Url>
          <LinkType>144115188075855872</LinkType>
          <IsMember>false</IsMember>
          <IsPublished>true</IsPublished>
        </ServerLink>
        <ServerLink>
          <Title>Contoso Document Library</Title>
          <Url>http://contoso:80/Documents</Url>
          <LinkType>1152921504640401408</LinkType>
          <IsMember>false</IsMember>
          <IsPublished>false</IsPublished>
        </ServerLink>
      </GetLinksResult>
    </GetLinksResponse>
  </soap:Body>
</soap:Envelope>
```


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5 Security

5.1 Security Considerations for Implementers

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

5.2 Index of Security Parameters

None.

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6 Appendix A: Full WSDL

For ease of implementation, the full **WSDL** and schema are provided in this appendix.

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksService"
xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
targetNamespace="http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksServic
e" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksServic
e">
      <s:element name="GetLinks">
        <s:complexType />
      </s:element>
      <s:element name="GetLinksResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="GetLinksResult"
                       type="tns:ArrayOfServerLink" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:complexType name="ArrayOfServerLink">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="unbounded" name="ServerLink"
                     nillable="true" type="tns:ServerLink" />
        </s:sequence>
      </s:complexType>
      <s:complexType name="ServerLink">
        <s:sequence>
          <s:element minOccurs="1" maxOccurs="1" name="Title" type="s:string" />
          <s:element minOccurs="1" maxOccurs="1" name="Url" type="s:string" />
          <s:element minOccurs="1" maxOccurs="1" name="LinkType" type="s:long" />
          <s:element minOccurs="1" maxOccurs="1" name="IsMember" type="s:boolean" />
          <s:element minOccurs="1" maxOccurs="1" name="IsPublished"
                     type="s:boolean" />
        </s:sequence>
      </s:complexType>
    </s:schema>
  </wsdl:types>
  <wsdl:message name="GetLinksSoapIn">
    <wsdl:part name="parameters" element="tns:GetLinks" />
  </wsdl:message>
  <wsdl:message name="GetLinksSoapOut">
    <wsdl:part name="parameters" element="tns:GetLinksResponse" />
  </wsdl:message>
  <wsdl:portType name="PublishedLinksServiceSoap">
    <wsdl:operation name="GetLinks">
      <wsdl:input message="tns:GetLinksSoapIn" />
      <wsdl:output message="tns:GetLinksSoapOut" />
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="PublishedLinksServiceSoap"
                type="tns:PublishedLinksServiceSoap">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http" style="document" />
    <wsdl:operation name="GetLinks">
      <soap:operation
soapAction="http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksService/Get
Links" style="document" />
```


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```
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:binding name="PublishedLinksServiceSoap12"
                type="tns:PublishedLinksServiceSoap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" style="document" />
    <wsdl:operation name="GetLinks">
      <soap12:operation
soapAction="http://microsoft.com/webservices/SharePointPortalServer/PublishedLinksService/Get
Links" style="document" />
      <wsdl:input>
        <soap12:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap12:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
</wsdl:definitions>
```


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7 Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include updates to those products.

- The 2007 Microsoft Office system
- Microsoft Office 2010 suites
- Microsoft Visio 2010
- Microsoft Office 2013
- Microsoft Office SharePoint Server 2007
- Microsoft SharePoint Server 2010
- Microsoft SharePoint Workspace 2010
- Microsoft SharePoint Server 2013
- Microsoft Office 2016
- Microsoft SharePoint Server 2016
- Microsoft Office 2019
- Microsoft SharePoint Server 2019
- Microsoft Office 2021
- Microsoft SharePoint Server Subscription Edition
- Microsoft Office LTSC 2024

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.

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8 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
7 Appendix B: Product Behavior	Updated list of supported products.	Major

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