[MS-SPSCRWL]:
SPSCrawl Web Service Protocol

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Revision Summary

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06/27/2008	1.0	Major	Revised and edited the technical content
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			the technical content.
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Table of Contents

1 Introduction

The SPSCrawl Web Service Protocol allows protocol clients to read the value of item properties for any items on the protocol server.

Sections 1.8, 2, and 3 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in [RFC2119]. Sections 1.5 and 1.9 are also normative but does not contain those terms. All other sections and examples in this specification are informative.

1.1 Glossary

The following terms are defined in [MS-GLOS]:

GUID
Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)
language code identifier (LCID)
Security Support Provider Interface (SSPI)
SOAP
SOAP action
SOAP body
SOAP fault
XML namespace

The following terms are defined in [MS-OFCGLOS]:

bucket
category
crawl
endpoint
front-end web server
item
partition
search folder
service application
site
SQL authentication
Uniform Resource Identifier (URI)
Uniform Resource Locator (URL)
user profile store
Web Services Description Language (WSDL)
XML namespace prefix

The following terms are specific to this document:

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

1.2 References

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

1.2.1 Normative References

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

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

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

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

[SOAP1.2/1] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part1-20030624

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, http://www.w3.org/TR/2001/NOTE-wsdl-20010315

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, http://www.w3.org/TR/2009/REC-xml-names-20091208/

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

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

1.2.2 Informative References

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

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

[MS-TDS] Microsoft Corporation, "Tabular Data Stream Protocol".

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

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

[SOAP1.2/2] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 2: Adjuncts", W3C Recommendation, June 2003, http://www.w3.org/TR/2003/REC-soap12-part2-20030624

1.3 Protocol Overview (Synopsis)

This protocol allows protocol clients to read the value of any **item** within the context of a **site(2)** or **service application**. The following diagram shows data flow between protocol client and protocol server.
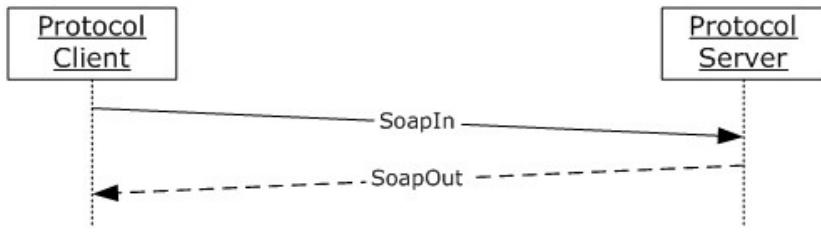
Figure 1: SPS Crawl Web Service Protocol data flow diagram (basic)

Additional details about the protocol are displayed in the following figure.
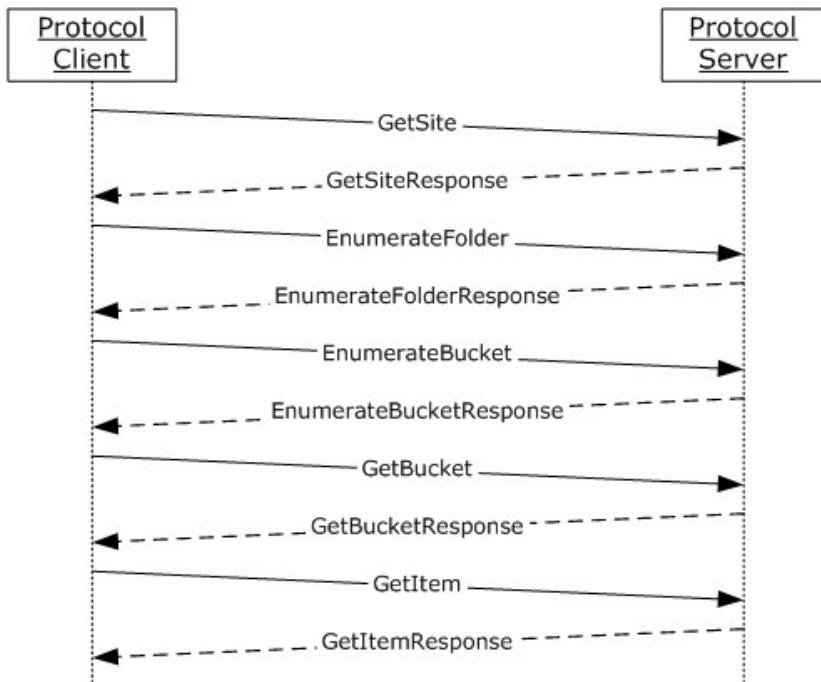
Figure 2: SPS Crawl Web Service Protocol data flow diagram (detailed)

The protocol client requests that the protocol server provide information about the site(2). On receiving this information, the protocol client requests that the protocol server provide a list of all **search folders (1)**. After the protocol server provides information about all the search folders (1), the protocol client requests that the protocol server enumerate **buckets (1)** in each search folder (1). Once this information is provided by the protocol server, the protocol client requests that the protocol server provide details about each item within a bucket (1).

1.4   Relationship to Other Protocols

This protocol uses the **SOAP** message protocol for formatting request and response messages, as described in [SOAP1.1], [SOAP1.2/1] and [SOAP1.2/2]. It transmits those messages by using **HTTP**, as described in [RFC2616], or **Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**, as described in [RFC2818].

The following diagram shows the underlying messaging and transport stack used by the protocol:
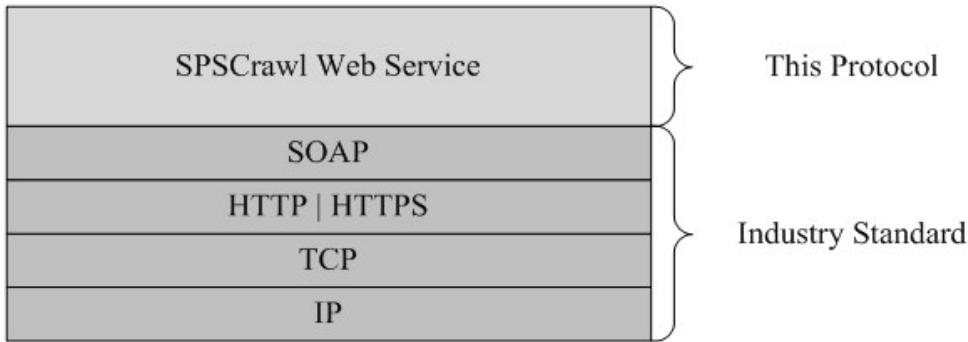
Figure 3: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a protocol server that is identified by a **URL** that is known by protocol clients. The protocol **endpoint (4)** is formed by appending SPSCrawl.asmx to the URL of the protocol server, for example:
`http://www.contoso.com:56737/SharedServices1/_vti_bin/spscrawl.asmx`.

1.6 Applicability Statement

This protocol allows a protocol client to read up to 10 million items.

1.7 Versioning and Capability Negotiation

Versions of the data structures or stored procedures in the database need to be the same as expected by the **front-end Web server**. If the stored procedures do not provide the calling parameters or return values as expected, the results of the call are indeterminate.

The version negotiation process for this protocol is identical to the process described in [MS-WSSFO2] section 1.7.

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. Additionally, protocol servers SHOULD support SOAP over Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS) for securing communication with clients.

This protocol uses the SOAP messaging protocol for formatting requests and responses as specified in [SOAP1.1] section 4 or in [SOAP1.2/1] section 5. Protocol server faults are returned either using an HTTP status code as specified in [RFC2616], section 10, or using a **SOAP fault** as specified either in [SOAP1.1] section 4.4 or in [SOAP1.2/1] section 5.4.

2.2 Common Message Syntax

This section contains common definitions used by this protocol. The syntax of the definitions uses XML Schema as defined in [XMLSCHEMA1] and [XMLSCHEMA2], and WSDL as defined in [WSDL].

2.2.1 Namespaces

This specification defines and references various **XML namespaces** using the mechanisms specified in [XMLNS]. Although this specification associates a specific **XML namespace prefix** for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability. These namespaces are described in the following table.

Prefix	Namespace URI	Reference
mime	http://schemas.xmlsoap.org/wsdl/mime	
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
soapenc	http://schemas.xmlsoap.org/soap/encoding/	
s0	http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/	
tm	http://microsoft.com/wsdl/mime/textMatching/	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]

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
ArrayOf_PortalPropValue	Holds an array of **_PortalPropValue** elements (section 2.2.4.2).
_PortalPropValue	Holds the value of the property of an item.
ArrayOf_PortalItem	Holds an array of **_PortalItem** elements (section 2.2.4.4).
_PortalItem	Holds the identifier and last modification time for the item.

2.2.4.1 ArrayOf_PortalPropValue

Holds an array of **_PortalPropValue** (section 2.2.4.2) elements.

```
<s:complexType name="ArrayOf_PortalPropValue">
  <s:sequence>
    <s:element name="_PortalPropValue" type="s0:_PortalPropValue" minOccurs="0"
maxOccurs="unbounded"/>
  </s:sequence>
</s:complexType>
```

_PortalPropValue: Individual **_PortalPropValue** (section 2.2.4.2) elements.

If a property is of type **multistring**, the first **multistring** entry MUST contain the first value of the property. The entries following the **multistring** entry MUST each contain one of the remaining values, with their **type** empty, their URI empty, and **count** set to zero. The total number of the **multistring** entry and the subsequent entries with their **type** empty and **count** set to zero MUST equal the value of the **count** property of the first **multistring** entry.If a property is of any other type, it MUST contain the value of that property, as defined in _**PortalPropValue** (section 2.2.4.2).

2.2.4.2 _PortalPropValue

Holds property value information.

```
<s:complexType name="_PortalPropValue">
  <s:sequence>
    <s:element name="URI" type="s:string" minOccurs="0"/>
    <s:element name="Value" type="s:string" minOccurs="0"/>
    <s:element name="Type" type="s:string" minOccurs="0"/>
    <s:element name="Count" type="s:int"/>
    <s:element name="UseLCID" type="s:boolean"/>
    <s:element name="LCID" type="s:unsignedInt"/>
  </s:sequence>
</s:complexType>
```

URI: The **URI** of the requested item. This element MUST be present.

Value: The value of the property. This element MUST be present.

Type: The type of the property, which MUST be one of the values listed in the following table.

Value	Description
String	The property is a string.
datetime	The property contains a datetime value encoded in universal datetime pattern, that can be sorted ("yyyy'-'MM'-'dd HH':'mm':'ss'Z'") as a string.
int32	The property contains a 32-bit integer encoded in the current culture of the property as a string.
int64	The property contains a 64-bit integer encoded in the current culture of the property as a string.
Float	The property contains a single-precision floating point number encoded in the current culture of the property as a string.
multistring	The property contains multiple strings as defined in **ArrayOf_PortalPropValue** (section 2.2.4.1).

Count: The number of the values returned. MUST be 1 if the object type is not **multistring**; otherwise, the **Count** of the first **multistring** entry represents the number of represented values, and count fields of the entries following the first entry are set to zero.

UseLCID: Indicates whether localization information is available in the **language code identifier (LCID)** element for this property.

LCID: Indicates localization information. This MUST be a valid LCID if **UseLCID** is set to true. This parameter MUST be 0 if **UseLCID** is set to **false**.

2.2.4.3 ArrayOf_PortalItem

Holds an array of **_PortalItem** elements (section 2.2.4.4).

```
<s:complexType name="ArrayOf_PortalItem">
  <s:sequence>
    <s:element name="_PortalItem" type="s0:_PortalItem" minOccurs="0" maxOccurs="unbounded"/>
  </s:sequence>
</s:complexType>
```

_PortalItem: An individual **_PortalItem** (section 2.2.4.4) entry.

2.2.4.4 _PortalItem

Returns the last modification time for items.

```
<s:complexType name="_PortalItem">
  <s:sequence>
    <s:element name="ID" type="s:string" minOccurs="0"/>
    <s:element name="LastModified" type="s:dateTime"/>
  </s:sequence>
```

```
    </s:complexType>
```

ID: The identifier of the item that was requested. This element MUST be present.

LastModified: The last modification time of the item identified by the **ID** element.

2.2.5 Simple Types

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

2.2.6 Attributes

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

2.2.7 Groups

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

2.2.8 Attribute Groups

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

3   Protocol Details

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

3.1   Server Details

3.1.1   Abstract Data Model

This protocol supports reading items that conform to a hierarchical pattern of data organization. This section specifies the hierarchical pattern in detail.

The elements of this hierarchy include a service application or a site(2) and items. The data organization includes two more hierarchy levels in the data model, one for the search folders (1), and one for the buckets (1). These elements conform to the data organization shown in the following diagram.
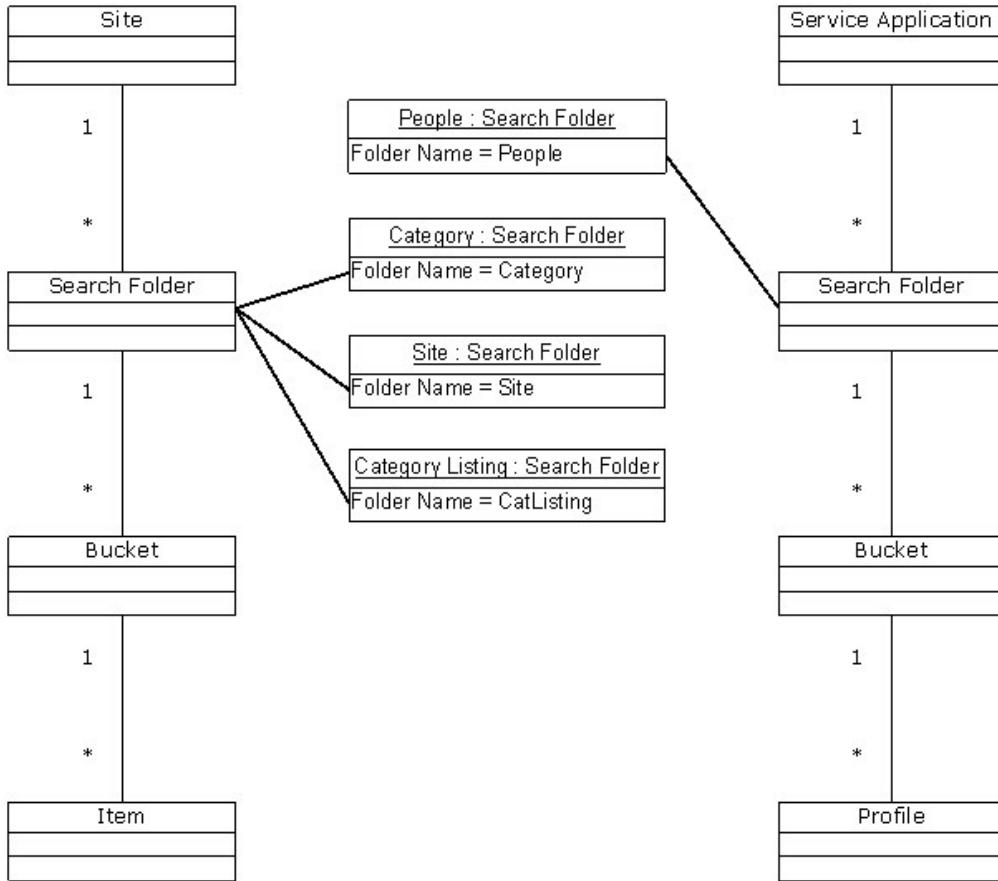
Figure 4: Abstract data model organization

3.1.2 Timers

None.

3.1.3 Initialization

The following initialization steps MUST be performed:

1. All abstract data model entities contain data that MUST be retrieved from persistent storage at initialization time.

2. Each operation within the protocol server MUST begin listening for requests at the respective URL addresses given in the message transport (as specified in section 2.1).

3.1.4 Message Processing Events and Sequencing Rules

Operation	Description
EnumerateBucket	Used to request a list of items in a bucket(1).
▪	Used to request a list of buckets(1), in each **partition (1)**, available in a search folder (1).

Operation	Description
▪ **EnumerateFolder**	
▪ **GetBucket**	Used to request data for the bucket(1).
▪ **GetItem**	Used to request property values of the item.
▪ **GetSite**	Used to request properties of the current site (2).

3.1.4.1 EnumerateBucket

This operation is used to request a list of items from the bucket (1).

```
<operation name="EnumerateBucket">
    <input message="s0:EnumerateBucketSoapIn"/>
    <output message="s0:EnumerateBucketSoapOut"/>
</operation>
```

The protocol client sends an **EnumerateBucketSoapIn** (section 3.1.4.1.1.1) request message and the protocol server responds with an **EnumerateBucketSoapOut** (section 3.1.4.1.1.2) response message.

3.1.4.1.1 Messages

3.1.4.1.1.1 EnumerateBucketSoapIn

This message is the request message for **EnumerateBucket** (Section 3.1.4.1).

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

```
http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/EnumerateBucket
```

The **SOAP body** contains an **EnumerateBucket** element (section 3.1.4.1.2.1).

3.1.4.1.1.2 EnumerateBucketSoapOut

This message is the response message for **EnumerateBucket** (Section 3.1.4.1).

The SOAP body contains an **EnumerateBucketResponse** (section 3.1.4.1.2.2) element.

3.1.4.1.2 Elements

3.1.4.1.2.1 EnumerateBucket

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

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

```
    <s:complexType>
      <s:sequence>
        <s:element name="strFolder" type="s:string" minOccurs="0"/>
        <s:element name="strBucketId" type="s:string" minOccurs="0"/>
        <s:element name="strCatalog" type="s:string" minOccurs="0"/>
        <s:element name="strScope" type="s:string" minOccurs="0"/>
      </s:sequence>
    </s:complexType>
  </s:element>
```

strFolder: A parameter representing the name of the search folder (1) operated upon by the **crawl** process. The implementation MUST be case-insensitive. The value MUST be the string value "people". **strBucketId:** A parameter representing the identifier of the bucket(1) that is crawled. The value MUST contain a 32-bit integer, culture-independent encoded as a string.

strCatalog: MUST be ignored.

strScope: MUST be ignored.

3.1.4.1.2.2 EnumerateBucketResponse

EnumerateBucketResponse is returned as the response of the **EnumerateBucket** (section 3.1.4.1) request.

```
  <s:element name="EnumerateBucketResponse">
    <s:complexType>
      <s:sequence>
        <s:element name="EnumerateBucketResult" type="s:unsignedInt"/>
        <s:element name="vItems" type="s0:ArrayOf_PortalItem" minOccurs="0"/>
      </s:sequence>
    </s:complexType>
  </s:element>
```

EnumerateBucketResult: The return value of the call, which MUST be 0.

vItems: The list of items identified by the **strFolder** and **strBucketId** parameters.

3.1.4.2 EnumerateFolder

This operation is used to request a list of buckets(1) in a search folder (1).

```
  <operation name="EnumerateFolder">
      <input message="s0:EnumerateFolderSoapIn"/>
      <output message="s0:EnumerateFolderSoapOut"/>
  </operation>
```

The protocol client sends an **EnumerateFolderSoapIn** (section 3.1.4.2.1.1) request message, and the server responds with an **EnumerateFolderSoapOut** (section 3.1.4.2.1.2) response message.

3.1.4.2.1 Messages

3.1.4.2.1.1 EnumerateFolderSoapIn

This message is the request message for **EnumerateFolder** (section 3.1.4.2).

The SOAP action value of the message is specified as follows:

```
http://microsoft.com/webservices/SharePPointPortalServer/PortalCrawl/EnumerateFolder
```

The SOAP body contains an **EnumerateFolder** element (section 3.1.4.2.2.1).

3.1.4.2.1.2 EnumerateFolderSoapOut

This message is the response message for **EnumerateFolder** (section 3.1.4.2).

The SOAP body contains an **EnumerateFolderResponse** element (section 3.1.4.2.2.2).

3.1.4.2.2 Elements

3.1.4.2.2.1 EnumerateFolder

The **EnumerateFolder** element is used to issue the **EnumerateFolder** (section 3.1.4.2) request.

```
<s:element name="EnumerateFolder">
  <s:complexType>
    <s:sequence>
      <s:element name="strFolder" type="s:string" minOccurs="0"/>
      <s:element name="strCatalog" type="s:string" minOccurs="0"/>
      <s:element name="strScope" type="s:string" minOccurs="0"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strFolder: The parameter representing the name of the search folder (1) that is crawled. Implementation MUST be case-insensitive. The value MUST be the string value "people".
strCatalog: MUST be ignored.

strScope: MUST be ignored.

3.1.4.2.2.2 EnumerateFolderResponse

EnumerateFolderResponse is returned as the response of the **EnumerateFolder** request (Section 3.1.4.2).

```
<s:element name="EnumerateFolderResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="EnumerateFolderResult" type="s:unsignedInt"/>
      <s:element name="vItems" type="s0:ArrayOf_PortalItem" minOccurs="0"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

EnumerateFolderResult: The return value of the call, which MUST be 0.

vItems: The list of buckets(1) available in the search folder (1) identified by the **strFolder** parameter.

3.1.4.3 GetBucket

This operation is used to request property values of the buckets (1).

The SOAP action value of the message is specified as follows:

```
<operation name="GetBucket">
    <input message="s0:GetBucketSoapIn"/>
    <output message="s0:GetBucketSoapOut"/>
</operation>
```

The protocol client sends a **GetBucketSoapIn** request message (section 3.1.4.3.1.1), and the protocol server responds with a **GetBucketSoapOut** response message (section 3.1.4.3.1.2).

3.1.4.3.1 Messages

3.1.4.3.1.1 GetBucketSoapIn

This message is the request message for **GetBucket** (section 3.1.4.3).

The SOAP action value of the message is specified as follows:

```
http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/GetBucket
```

The SOAP body contains a **GetBucket** (section 3.1.4.3.2.1) element.

3.1.4.3.1.2 GetBucketSoapOut

This message is the response message for **GetBucket** (section 3.1.4.3).

The SOAP body contains a **GetBucketResponse** element (section 3.1.4.3.2.2).

3.1.4.3.2 Elements

3.1.4.3.2.1 GetBucket

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

```
<s:element name="GetBucket">
  <s:complexType>
    <s:sequence>
      <s:element name="strFolder" type="s:string" minOccurs="0"/>
      <s:element name="strBucketId" type="s:string" minOccurs="0"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strFolder: The parameter representing the name of the search folder (1) that is crawled. The implementation MUST be case-insensitive. The value MUST be the string value "people".

strBucketId: The identifier that represents the bucket (1) that is crawled. The value MUST contain a 32-bit integer, culture-independent, and encoded as a string.

3.1.4.3.2.2 GetBucketResponse

The **GetBucketResponse** element is returned as the response of the **GetBucket** request (section 3.1.4.3).

```
<s:element name="GetBucketResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetBucketResult" type="s:unsignedInt"/>
      <s:element name="vPropValues" type="s0:ArrayOf_PortalPropValue" minOccurs="0"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

GetBucketResult: The return value of the call, which MUST be 0.

vPropValues: An array of properties for the bucket (1) identified by the **strFolder** and **strBucketId** parameters. MUST return the values for properties described in the following table.

Property name	Property type	Description
DAV:getlastmodified	**Datetime**	Date of last modification of the requested bucket

3.1.4.4 GetItem

This operation is used to request properties of the items.

```
<operation name="GetItem">
    <input message="s0:GetItemSoapIn"/>
    <output message="s0:GetItemSoapOut"/>
</operation>
```

The protocol client sends a **GetItemSoapIn** (section 3.1.4.4.1.1) request message, and the protocol server responds with a **GetItemSoapOut** (section 3.1.4.4.1.2) response message.

3.1.4.4.1 Messages

3.1.4.4.1.1 GetItemSoapIn

This message is the request message for **GetItem** (section 3.1.4.4).

The SOAP action value of the message is specified as follows:

```
http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/GetItem
```

The SOAP body contains a **GetItem** (section 3.1.4.4.2.1) element.

3.1.4.4.1.2 GetItemSoapOut

This message is the response message for the **GetItem** (section 3.1.4.4).

The SOAP body contains a **GetItemResponse** (section 3.1.4.4.2.2) element.

3.1.4.4.2 Elements

3.1.4.4.2.1 GetItem

The **GetItem** element is used to issue the **GetItem** request (section 3.1.4.4).

```
<s:element name="GetItem">
  <s:complexType>
    <s:sequence>
      <s:element name="strFolder" type="s:string" minOccurs="0"/>
      <s:element name="strItemId" type="s:string" minOccurs="0"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

strFolder: A parameter representing the name of the search folder (1) that is crawled. The implementation MUST be case-insensitive. This value MUST be the string value "people".

strItemId: This value MUST be the identifier of the item in the search folder (1) provided in the **strFolder** parameter.

3.1.4.4.2.2 GetItemResponse

The **GetItemResponse** element is returned as the response of the **GetItem** request (section 3.1.4.4).

```
<s:element name="GetItemResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetItemResult" type="s:unsignedInt"/>
      <s:element name="vPropValues" type="s0:ArrayOf_PortalPropValue" minOccurs="0"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

GetItemResult: The return value of the call, which MUST be 0.

vPropValues: The array of properties for the item identified by **strFolder** and **strItemId** parameters. MUST return values for the properties described in the following table.

Property name	Property type	Description
DAV:getlastmodified	datetime	The date of last modification of the item requested.
DAV:href	string	Set to the item URL.
DAV:contentclass	string	SHOULD<1> be set to "urn:content-class:SPSPeople". It MAY<2> instead be one of the following values: ▪ urn:content-classes:SPSSiteRegistry ▪ urn:content-classes:SPSSiteListing ▪ urn:content-classes:SPSListing

MAY<3> return the property described in the following table.

Property name	Property type	Description
urn:schemas-microsoft-com:sharepoint:portal:objectid	string	Set to the object identifier of the requested item.

3.1.4.5 GetSite

This operation is used to request properties of the current site (2).

```
<operation name="GetSite">
    <input message="s0:GetSiteSoapIn"/>
    <output message="s0:GetSiteSoapOut"/>
</operation>
```

The protocol client sends a **GetSiteSoapIn** request message (section 3.1.4.5.1.1), and the protocol server responds with a **GetSiteSoapOut** response message (section 3.1.4.5.1.2).

3.1.4.5.1 Messages

3.1.4.5.1.1 GetSiteSoapIn

This message is the request message for **GetSite** (section 3.1.4.5).

The SOAP action value of the message is specified as follows:

```
http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/GetSite
```

The SOAP body contains a **GetSite** request (section 3.1.4.5.2.1) element.

3.1.4.5.1.2 GetSiteSoapOut

This message is the response message for **GetSite** (section 3.1.4.5).

The SOAP body contains a **GetSiteResponse** (section 3.1.4.5.2.2) element.

3.1.4.5.2 Elements

3.1.4.5.2.1 GetSite

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

```
<s:element name="GetSite">
  <s:complexType>
    <s:sequence>
      <s:element name="sSite" type="s0:_PortalSite"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

sSite: Contains input site (2) data.

3.1.4.5.2.2   GetSiteResponse

The **GetSiteResponse** element is returned as the response of the **GetSite** (section 3.1.4.5) request.

```
<s:element name="GetSiteResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetSiteResult" type="s:unsignedInt"/>
      <s:element name="sSite" type="s0:_PortalSite"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

GetSiteResult: The return value of the call, which MUST be 0.

sSite: Output site (2) information. The call MUST replace the existing values of **strSiteId**, **iLocale**, **strSiteName, strApplicationId and strPartitionId** .

3.1.4.5.3   Complex Types

3.1.4.5.3.1   _PortalSite

Used to request and retrieve information about a site (2).

```
<s:complexType name="_PortalSite">
  <s:sequence>
    <s:element name="strSiteId" type="s:string" minOccurs="0"/>
    <s:element name="strPortalUrl" type="s:string" minOccurs="0"/>
    <s:element name="strPortalUrlLastModified" type="s:string" minOccurs="0"/>
    <s:element name="iLocale" type="s:int"/>
    <s:element name="strSiteName" type="s:string" minOccurs="0"/>
    <s:element name="strApplicationId" type="s:string" minOccurs="0"/>
    <s:element name="strPartitionId" type="s:string" minOccurs="0"/>
  </s:sequence>
</s:complexType>
```

strSiteId: The identifier of the site (2).

strPortalUrl: The URL of the site (2). This value MUST be ignored.

strPortalUrlLastModified: The date and time of last modification of the content of the site (2). This value MUST be ignored.

iLocale: Contains the language code identifier (LCID) of the site (2).

strSiteName: Contains name of the site (2).

strApplicationId: The identifier of the application.

strPartitionId: The identifier of the partition (1).

3.1.5   Timer Events

None.

3.1.6   Other Local Events

None.

4   Protocol Examples

4.1   People Search

This protocol supports reading user profiles.

4.1.1   Data

The following data supports the crawling of user profiles for a site (2).

The bucket (1) size for user profiles is 10,000.

The **user profile store** contains two buckets (1), Bucket1 and Bucket2, which store 20,000 user profiles representing different directory accounts:

- Bucket1 – contains user profiles UP1, UP2,…, UP10000

- Bucket2 – contains user profiles UP10001, UP10002,…,UP20000

4.1.2   Full Crawl

For a full crawl, the protocol client loops through the entire collection of user profiles and retrieves property values needed for the search indexer. To do this, the protocol client follows these steps:

- Call the **GetSite** (section 3.1.4.5) method to retrieve information about the Web site that will be crawled, passing:

  sSite: the reference to a **_PortalSite** object section 3.1.4.5.3.1).

The protocol client sends a **GetSiteSoapIn** request message (section 3.1.4.5.1.1), as follows:

```
<?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>
<GetSite xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<sSite>
<iLocale>0</iLocale>
</sSite>
</GetSite>
</soap:Body>
</soap:Envelope>
```

Assuming no errors occurred, the returned **_PortalSite** object (section 3.1.4.5.3.1) has information about the site (2) being crawled:

- **strSiteId** = "d8b5812e-b7e9-481b-92ea-78f029fde92f"

- **strSiteName** = "Central Administration"

- **iLocale** = 1033

- **strApplicationId** = "6b29fc40-ca47-1067-b31d-00dd010662da"

- **strPartitionId** = "936da01f-9abd-4d9d-80c7-02af85c822a8"

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The protocol server responds with a **GetSiteSoapOut** response message (section 3.1.4.5.1.2) response message, as follows:

```
<?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>
<GetSiteResponse
xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<GetSiteResult>0</GetSiteResult>
<sSite>
<strSiteId>d8b5812e-b7e9-481b-92ea-78f029fde92f</strSiteId>
<iLocale>1033</iLocale>
<strSiteName>Central Administration</strSiteName>
<strApplicationId>6b29fc40-ca47-1067-b31d-00dd010662da</strApplicationId>
<strPartitionId>936da01f-9abd-4d9d-80c7-02af85c822a8</strPartitionId>
</sSite>
</GetSiteResponse>
</soap:Body>
</soap:Envelope>
```

▪ Call the **EnumerateFolder** (section 3.1.4.2.2.1) method to retrieve the list of buckets(1) available in a particular search folder (1), and pass in the following parameter:

▪**strFolder:** Set to "people", as the value for the search folder (1) being crawled.

The protocol client sends an **EnumerateFolderSoapIn** request message (section 3.1.4.2.1.1), as follows.

```
<?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>
<EnumerateFolder
xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<strFolder>people</strFolder>
</EnumerateFolder>
</soap:Body>
</soap:Envelope>
```

Assuming no errors occurred, vItems is the returned **ArrayOf_PortalItem** object (section 2.2.4.3), which contains the available buckets (1) as follows:

▪ vItems[0] contains information about bucket (1) Bucket1:

▪ID = "1"

▪LastModified = {1/29/2008 11:20:04 PM}

▪ vItems[1] contains information about bucket (1) Bucket2:

▪ID = "2"

▪LastModified = {1/29/2008 11:20:08 PM}

The protocol server responds with an **EnumerateFolderSoapOut** (section 3.1.4.2.1.2) response message, as follows.

```
<?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>
<EnumerateFolderResponse
xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<EnumerateFolderResult>0</EnumerateFolderResult>
<vItems>
<_PortalItem>
<ID>1</ID>
<LastModified>2008-01-29T23:20:04.077</LastModified>
</_PortalItem>
<_PortalItem>
<ID>2</ID>
<LastModified>2008-01-29T19:20:08.263</LastModified>
</_PortalItem>
</vItems>
</EnumerateFolderResponse>
</soap:Body>
</soap:Envelope>
```

For the full crawl example, the protocol client crawls all buckets (1) returned by **EnumerateFolder** (section 3.1.4.2), repeating the next two steps for each bucket(1).

- Call the **GetBucket** request (section 3.1.4.3) to retrieve the last modified date of Bucket Bucket1, passing:

  - **strFolder:** Set to "people", as the value for the search folder (1) being crawled

  - **strBucketId:** "1", as the Bucket Bucket1 identifier

The protocol client sends an **GetBucketSoapIn** request message (section 3.1.4.3.1.1), as follows.

```
<?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>
<GetBucket xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<strFolder>people</strFolder>
<strBucketId>1</strBucketId>
</GetBucket>
</soap:Body>
</soap:Envelope>
```

Assuming no errors occurred; **vPropValues** is the returned **ArrayOf_PortalPropValue** (section 2.2.4.1) object containing the available information for Bucket Bucket1, as follows.

- vPropValues[0]:

  - Count = 1

  - LCID = 0

- Type = "datetime"

- URI = "DAV:getlastmodified"

- UseLCID = false

- Value = " 2008-02-21 19:54:37Z"

The protocol server responds with a **GetBucketSoapOut** response message (section 3.1.4.3.1.2), as follows.

```
<?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>
<GetBucketResponse
xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<GetBucketResult>0</GetBucketResult>
<vPropValues>
<_PortalPropValue>
<URI>DAV:getlastmodified</URI>
<Value>2008-02-21 19:54:37Z</Value>
<Type>datetime</Type>
<Count>1</Count>
<UseLCID>false</UseLCID>
<LCID>0</LCID>
</_PortalPropValue>
</vPropValues>
</GetBucketResponse>
</soap:Body>
</soap:Envelope>
```

- Call **EnumerateBucket** (section 3.1.4.1) to retrieve the list of user profiles in bucket(1) Bucket1, passing:

  - **strFolder:** Set to "people", as the value for the search folder (1) being crawled.

  - **strBucketId:** Set to 1, as the Bucket1 identifier.

The protocol client sends an **EnumerateBucketSoapIn** request message (section 3.1.4.1.1.1), as follows.

```
<?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>
<EnumerateBucket
xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<strFolder>people</strFolder>
<strBucketId>1</strBucketId>
</EnumerateBucket>
</soap:Body>
</soap:Envelope>
```

Assuming no errors occurred, **vItems** is the returned **ArrayOf_PortalItem** object (section 2.2.4.3) containing the available user profiles in Bucket1, as follows.

- vItems[0] contains information about user profile UP1:

  - ID = "1"

  - LastModified = {1/26/2008 1:05:27 AM}

- vItems[1]... vItems[9998]

- vItems[9999] contains information about user profile UP10000:

  - ID = "10000"

  - LastModified = {1/26/2008 1:17:56 AM}

The protocol server responds with an **EnumerateBucketSoapOut** (section 3.1.4.1.1.2) response message, as follows:

```
<?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>
<EnumerateBucketResponse
xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<EnumerateBucketResult>0</EnumerateBucketResult>
<vItems>
<_PortalItem>
<ID>1</ID>
<LastModified>2008-01-26T01:05:27.97</LastModified>
</_PortalItem>
……
<_PortalItem>
<ID>10000</ID>
<LastModified>2008-01-26T01:17:56.03</LastModified>
</_PortalItem>
</vItems>
</EnumerateBucketResponse>
</soap:Body>
</soap:Envelope>
```

For the full crawl example, the protocol client crawls all user profiles returned by **EnumerateBucket** (section 3.1.4.1), repeating the next step for each user profile.

- Call **GetItem** (section 3.1.4.4) to retrieve the list of properties of the user profile UP1, passing:

  - **strFolder:** Set to "people", as the value for the search folder (1) being crawled.

  - **strItemId:** "1", as the user profile UP1 identifier.

The protocol client sends a **GetItemSoapIn** (section 3.1.4.4.1.1) request message, as follows.

```
<?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>
<GetItem xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<strFolder>people</strFolder>
<strItemId>1</strItemId>
</GetItem>
</soap:Body>
</soap:Envelope>
```

Assuming no errors occurred, **vPropValues** is the returned **ArrayOf_PortalPropValue** object (section 2.2.4.1) containing the available properties of the user profile UP1, such as:

- vPropValues[0] contains the following properties:

  - Count = 1

  - LCID = 0

  - Type = "datetime"

  - URI = "DAV:getlastmodified"

  - UseLCID = false

  - Value = "2008-01-26 01:05:27Z"

- vPropValues[1] contains the following properties:

  - Count = 1

  - LCID = 0

  - Type = "string"

  - URI = "DAV:contentclass"

  - UseLCID = false

  - Value = "urn:content-class:SPSPeople"

- vPropValues[2] contains the following properties and an associated **GUID** value.

  - Count = 1

  - LCID = 0

  - Type = "string"

  - URI = "urn:schemas-microsoft-com:sharepoint:portal:objectid"

  - UseLCID = false

  - Value = "2FA3D133-031B-427A-AFCE-B452F757DD7A"

- vPropValues[3] contains the following properties and GUID value.

  - Count = 1

  - LCID = 0

- Type = "string"

- URI = "DAV:href"

- UseLCID = false

- Value = "http://howdytestvm:81/Person.aspx?guid=2FA3D133%2D031B%2D427A%2DAFCE%2DB452 F757DD7A"

The protocol server responds with a **GetItemSoapOut** response message (section 3.1.4.4.1.2), as follows.

```
<?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>
<GetItemResponse
xmlns="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
<GetItemResult>0</GetItemResult>
<vPropValues>
<_PortalPropValue>
<URI>DAV:getlastmodified</URI>
<Value>2008-01-26 01:05:27Z</Value>
<Type>datetime</Type>
<Count>1</Count>
<UseLCID>false</UseLCID>
<LCID>0</LCID>
</_PortalPropValue>
<_PortalPropValue>
<URI>DAV:contentclass</URI>
<Value>urn:content-class:SPSPeople</Value>
<Type>string</Type>
<Count>1</Count>
<UseLCID>false</UseLCID>
<LCID>0</LCID>
</_PortalPropValue>
<_PortalPropValue>
<URI>urn:schemas-microsoft-com:sharepoint:portal:objectid</URI>
<Value>2FA3D133-031B-427A-AFCE-B452F757DD7A</Value>
<Type>string</Type>
<Count>1</Count>
<UseLCID>false</UseLCID>
<LCID>0</LCID>
</_PortalPropValue>
<_PortalPropValue>
<URI>DAV:href</URI>
<Value>http://howdytestvm:81/Person.aspx?guid=2FA3D133%2D031B%2D427A%2DAFCE%2DB452F757DD7A</V
alue>
<Type>string</Type>
<Count>1</Count>
<UseLCID>false</UseLCID>
<LCID>0</LCID>
</_PortalPropValue>
</vPropValues>
</GetItemResponse>
</soap:Body>
```

```
</soap:Envelope>
```

5   Security

5.1   Security Considerations for Implementers

This protocol supports the **Security Support Provider Interface (SSPI)** and **SQL authentication** with the protocol server role. These authentication methods are described in [MS-TDS].

5.2   Index of Security Parameters

None.

6 Appendix A: Full WSDL

For ease of implementation, the full WSDL is provided as follows:

```xml
<?xml version="1.0" encoding="utf-8"?>
<definitions xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:s0="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
targetNamespace="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/"
xmlns="http://schemas.xmlsoap.org/wsdl/">
  <types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/">
      <s:element name="GetItem">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="strFolder" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="strItemId" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetItemResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="GetItemResult" type="s:unsignedInt" />
            <s:element minOccurs="0" maxOccurs="1" name="vPropValues"
type="s0:ArrayOf_PortalPropValue" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:complexType name="ArrayOf_PortalPropValue">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="unbounded" name="_PortalPropValue"
type="s0:_PortalPropValue" />
        </s:sequence>
      </s:complexType>
      <s:complexType name="_PortalPropValue">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="URI" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="Value" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="Type" type="s:string" />
          <s:element name="Count" type="s:int" />
          <s:element name="UseLCID" type="s:boolean" />
          <s:element name="LCID" type="s:unsignedInt" />
        </s:sequence>
      </s:complexType>
      <s:element name="GetBucket">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="strFolder" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="strBucketId" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetBucketResponse">
        <s:complexType>
```

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```xml
          <s:sequence>
            <s:element name="GetBucketResult" type="s:unsignedInt" />
            <s:element minOccurs="0" maxOccurs="1" name="vPropValues"
  type="s0:ArrayOf_PortalPropValue" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="EnumerateBucket">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="strFolder" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="strBucketId" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="strCatalog" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="strScope" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="EnumerateBucketResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="EnumerateBucketResult" type="s:unsignedInt" />
            <s:element minOccurs="0" maxOccurs="1" name="vItems" type="s0:ArrayOf_PortalItem"
  />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:complexType name="ArrayOf_PortalItem">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="unbounded" name="_PortalItem"
  type="s0:_PortalItem" />
        </s:sequence>
      </s:complexType>
      <s:complexType name="_PortalItem">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="ID" type="s:string" />
          <s:element name="LastModified" type="s:dateTime" />
        </s:sequence>
      </s:complexType>
      <s:element name="EnumerateFolder">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="strFolder" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="strCatalog" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="strScope" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="EnumerateFolderResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="EnumerateFolderResult" type="s:unsignedInt" />
            <s:element minOccurs="0" maxOccurs="1" name="vItems" type="s0:ArrayOf_PortalItem"
  />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetSite">
        <s:complexType>
          <s:sequence>
```

```
            <s:element name="sSite" type="s0:_PortalSite" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:complexType name="_PortalSite">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="strSiteId" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="strPortalUrl" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="strPortalUrlLastModified"
  type="s:string" />
          <s:element name="iLocale" type="s:int" />
          <s:element minOccurs="0" maxOccurs="1" name="strSiteName" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="strApplicationId" type="s:string"/>
          <s:element minOccurs="0" maxOccurs="1" name="strPartitionId" type="s:string"/>

        </s:sequence>
      </s:complexType>
      <s:element name="GetSiteResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="GetSiteResult" type="s:unsignedInt" />
            <s:element name="sSite" type="s0:_PortalSite" />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
  </types>
  <message name="GetItemSoapIn">
    <part name="parameters" element="s0:GetItem" />
  </message>
  <message name="GetItemSoapOut">
    <part name="parameters" element="s0:GetItemResponse" />
  </message>
  <message name="GetBucketSoapIn">
    <part name="parameters" element="s0:GetBucket" />
  </message>
  <message name="GetBucketSoapOut">
    <part name="parameters" element="s0:GetBucketResponse" />
  </message>
  <message name="EnumerateBucketSoapIn">
    <part name="parameters" element="s0:EnumerateBucket" />
  </message>
  <message name="EnumerateBucketSoapOut">
    <part name="parameters" element="s0:EnumerateBucketResponse" />
  </message>
  <message name="EnumerateFolderSoapIn">
    <part name="parameters" element="s0:EnumerateFolder" />
  </message>
  <message name="EnumerateFolderSoapOut">
    <part name="parameters" element="s0:EnumerateFolderResponse" />
  </message>
  <message name="GetSiteSoapIn">
    <part name="parameters" element="s0:GetSite" />
  </message>
  <message name="GetSiteSoapOut">
    <part name="parameters" element="s0:GetSiteResponse" />
  </message>
  <portType name="PortalCrawlSoap">
    <operation name="GetItem">
```

```
      <input message="s0:GetItemSoapIn" />
      <output message="s0:GetItemSoapOut" />
    </operation>
    <operation name="GetBucket">
      <input message="s0:GetBucketSoapIn" />
      <output message="s0:GetBucketSoapOut" />
    </operation>
    <operation name="EnumerateBucket">
      <input message="s0:EnumerateBucketSoapIn" />
      <output message="s0:EnumerateBucketSoapOut" />
    </operation>
    <operation name="EnumerateFolder">
      <input message="s0:EnumerateFolderSoapIn" />
      <output message="s0:EnumerateFolderSoapOut" />
    </operation>
    <operation name="GetSite">
      <input message="s0:GetSiteSoapIn" />
      <output message="s0:GetSiteSoapOut" />
    </operation>
  </portType>
  <binding name="PortalCrawlSoap" type="s0:PortalCrawlSoap">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http" style="document" />
    <operation name="GetItem">
      <soap:operation
soapAction="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/GetItem"
style="document" />
      <input>
        <soap:body use="literal" />
      </input>
      <output>
        <soap:body use="literal" />
      </output>
    </operation>
    <operation name="GetBucket">
      <soap:operation
soapAction="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/GetBucket"
style="document" />
      <input>
        <soap:body use="literal" />
      </input>
      <output>
        <soap:body use="literal" />
      </output>
    </operation>
    <operation name="EnumerateBucket">
      <soap:operation
soapAction="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/EnumerateBuck
et" style="document" />
      <input>
        <soap:body use="literal" />
      </input>
      <output>
        <soap:body use="literal" />
      </output>
    </operation>
    <operation name="EnumerateFolder">
      <soap:operation
soapAction="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/EnumerateFold
er" style="document" />
      <input>
```

```
          <soap:body use="literal" />
        </input>
        <output>
          <soap:body use="literal" />
        </output>
      </operation>
      <operation name="GetSite">
        <soap:operation
soapAction="http://microsoft.com/webservices/SharePointPortalServer/PortalCrawl/GetSite"
style="document" />
        <input>
          <soap:body use="literal" />
        </input>
        <output>
          <soap:body use="literal" />
        </output>
      </operation>
    </binding>
</definitions>
```

7   Appendix B: Product Behavior

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

- Microsoft FAST Search Server 2010

- Microsoft Search Server 2010

- Microsoft Office SharePoint Portal Server 2003

- Microsoft Office SharePoint Server 2007

- Microsoft SharePoint Server 2010

- Microsoft SharePoint Server 2013

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

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

<1> Section 3.1.4.4.2.2: When SharePoint Server 2010 crawls servers running SharePoint Portal Server 2003, the valid values for this property are described in the following table.

Value	Description
urn:content-classes:SPSSiteRegistry	The Item is a **category (1)**.
urn:content-classes:SPSSiteListing	The Item is a site (2).
urn:content-classes:SPSListing	The Item is a category listing.

<2> Section 3.1.4.4.2.2: When SharePoint Server 2010 crawls servers running SharePoint Portal Server 2003, the valid values for this property are described in the following table.

Value	Description
urn:content-classes:SPSSiteRegistry	The Item is a category (1).
urn:content-classes:SPSSiteListing	The Item is a site (2).
urn:content-classes:SPSListing	The Item is a category listing.

<3> Section 3.1.4.4.2.2: Office SharePoint Server 2007 returns the **urn:schemas-microsoft-com:sharepoint:portal:objectid** property, SharePoint Server 2010 does not.

8 Change Tracking

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

9   Index

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