

# [MS-CONATB]:

## Content Area Toolbox Web Service Protocol

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## Revision Summary

| Date       | Revision History | Revision Class | Comments   |
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| 7/30/2013  | 2.7              | Minor          | Clarified the meaning of the technical content.                              |
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Preliminary

# Table of Contents

|             |  |           |
|-------------|--|-----------|
| <b>1</b>    | <b>Introduction .....</b>                            | <b>7</b>  |
| 1.1         | Glossary .....                                       | 7         |
| 1.2         | References .....                                     | 8         |
| 1.2.1       | Normative References .....                           | 8         |
| 1.2.2       | Informative References .....                         | 9         |
| 1.3         | Overview .....                                       | 9         |
| 1.4         | Relationship to Other Protocols .....                | 9         |
| 1.5         | Prerequisites/Preconditions .....                    | 10        |
| 1.6         | Applicability Statement .....                        | 10        |
| 1.7         | Versioning and Capability Negotiation .....          | 10        |
| 1.8         | Vendor-Extensible Fields .....                       | 10        |
| 1.9         | Standards Assignments.....                           | 10        |
| <b>2</b>    | <b>Messages.....</b>                                 | <b>11</b> |
| 2.1         | Transport .....                                      | 11        |
| 2.2         | Common Message Syntax .....                          | 11        |
| 2.2.1       | Namespaces .....                                     | 11        |
| 2.2.2       | Messages.....  | 11        |
| 2.2.3       | Elements .....                                       | 11        |
| 2.2.4       | Complex Types.....                                   | 11        |
| 2.2.5       | Simple Types .....                                   | 12        |
| 2.2.6       | Attributes .....                                     | 12        |
| 2.2.7       | Groups .....   | 12        |
| 2.2.8       | Attribute Groups.....                                | 12        |
| <b>3</b>    | <b>Protocol Details .....</b>                        | <b>13</b> |
| 3.1         | Server Details.....                                  | 13        |
| 3.1.1       | Abstract Data Model.....                             | 13        |
| 3.1.2       | Timers .....   | 13        |
| 3.1.3       | Initialization .....                                 | 13        |
| 3.1.4       | Message Processing Events and Sequencing Rules ..... | 13        |
| 3.1.4.1     | FetchControlLists .....                              | 14        |
| 3.1.4.1.1   | Messages .....                                       | 14        |
| 3.1.4.1.1.1 | FetchControlListsSoapIn .....                        | 14        |
| 3.1.4.1.1.2 | FetchControlListsSoapOut .....                       | 14        |
| 3.1.4.1.2   | Elements .....                                       | 15        |
| 3.1.4.1.2.1 | FetchControlLists .....                              | 15        |
| 3.1.4.1.2.2 | FetchControlListsResponse .....                      | 15        |
| 3.1.4.1.3   | Complex Types .....                                  | 16        |
| 3.1.4.1.3.1 | ControlsListType .....                               | 16        |
| 3.1.4.1.3.2 | AssemblyType .....                                   | 16        |
| 3.1.4.1.3.3 | ControlType .....                                    | 16        |
| 3.1.4.1.4   | Simple Types .....                                   | 17        |
| 3.1.4.1.5   | Attributes .....                                     | 17        |
| 3.1.4.1.6   | Groups.....  | 17        |
| 3.1.4.1.7   | Attribute Groups.....                                | 17        |
| 3.1.4.2     | FetchPanelsInformationByUrl.....                     | 17        |
| 3.1.4.2.1   | Messages .....                                       | 18        |
| 3.1.4.2.1.1 | FetchPanelsInformationByUrlSoapIn .....              | 18        |
| 3.1.4.2.1.2 | FetchPanelsInformationByUrlSoapOut.....              | 18        |
| 3.1.4.2.2   | Elements .....                                       | 18        |
| 3.1.4.2.2.1 | FetchPanelsInformationByUrl.....                     | 19        |
| 3.1.4.2.2.2 | FetchPanelsInformationByUrlResponse .....            | 19        |
| 3.1.4.2.3   | Complex Types .....                                  | 19        |
| 3.1.4.2.3.1 | ArrayOfPanelInfo .....                               | 20        |

|             |  |           |
|-------------|--|-----------|
| 3.1.4.2.3.2 | PanelInfo .....                                | 20        |
| 3.1.4.2.4   | Simple Types .....                             | 20        |
| 3.1.4.2.5   | Attributes .....                               | 20        |
| 3.1.4.2.6   | Groups .....                                   | 20        |
| 3.1.4.2.7   | Attribute Groups .....                         | 20        |
| 3.1.5       | Timer Events .....                             | 21        |
| 3.1.6       | Other Local Events .....                       | 21        |
| <b>4</b>    | <b>Protocol Examples .....</b>                 | <b>22</b> |
| <b>5</b>    | <b>Security .....</b>                          | <b>25</b> |
| 5.1         | Security Considerations for Implementers ..... | 25        |
| 5.2         | Index of Security Parameters .....             | 25        |
| <b>6</b>    | <b>Appendix A: Full WSDL .....</b>             | <b>26</b> |
| <b>7</b>    | <b>Appendix B: Product Behavior .....</b>      | <b>29</b> |
| <b>8</b>    | <b>Change Tracking .....</b>                   | <b>30</b> |
| <b>9</b>    | <b>Index .....</b>                             | <b>31</b> |

Preliminary

# 1 Introduction

The Content Area Toolbox Web Service Protocol can be used by protocol clients to enumerate the Web controls that are stored on a protocol server and can be used on a Web page.

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:

**Augmented Backus-Naur Form (ABNF):** A modified version of Backus-Naur Form (BNF), commonly used by Internet specifications. ABNF notation balances compactness and simplicity with reasonable representational power. ABNF differs from standard BNF in its definitions and uses of naming rules, repetition, alternatives, order-independence, and value ranges. For more information, see [\[RFC5234\]](#).

**content type:** A named and uniquely identifiable collection of settings and fields that store metadata for individual items in a SharePoint list. One or more content types can be associated with a list, which restricts the contents to items of those types.

**content type identifier:** A unique identifier that is assigned to a **content type**.

**culture name:** A part of a language identification tagging system, as described in [\[RFC1766\]](#). Culture names adhere to the format "<languagecode2>-<country/regioncode2>." If a two-letter language code is not available, a three-letter code that is derived from [\[ISO-639\]](#) is used.

**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 [\[RFC5246\]](#).

**localize:** The process of adapting an application or documentation, including text and non-text elements, to meet the language, cultural, and political expectations and requirements of a specific geographic country or region.

**page layout:** A dynamic web template that is stored as a document. It contains content placeholders that bind to fields of a publishing page. A page layout has an associated content type that determines which publishing pages it can be bound to.

**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.

**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.

**SOAP message:** An XML document consisting of a mandatory SOAP envelope, an optional SOAP header, and a mandatory **SOAP body**. See [\[SOAP1.2-1/2007\]](#) section 5 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 control:** A server-side component that encapsulates user interface and related functionality.

**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 document:** A document object that is well formed, as described in [\[XML10/5\]](#), and might be valid. An XML document has a logical structure that is composed of declarations, elements, comments, character references, and processing instructions. It also has a physical structure that is composed of entities, starting with the root, or document, entity.

**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](mailto:dochelp@microsoft.com). We will assist you in finding the relevant information.

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



[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>

[RFC4647] Phillips, A., and Davis, M., Eds., "Matching of Language Tags", BCP 47, RFC 4647, September 2006, <http://www.rfc-editor.org/rfc/rfc4647.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] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, <http://www.w3.org/TR/2003/REC-soap12-part1-20030624>

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

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

[XMLNS] 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., 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., Ed. and Malhotra, A., Ed., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/>

### 1.2.2 Informative References

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

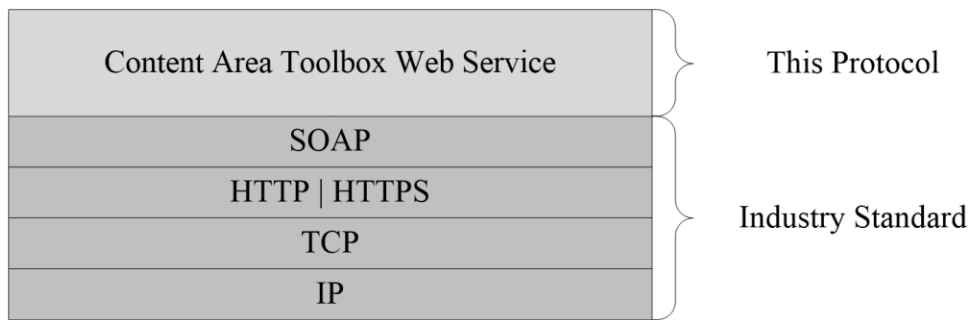
### 1.3 Overview

This protocol allows a protocol client to enumerate the **Web controls** that are stored on a protocol server and can be used on a Web page. A typical scenario for using this protocol is a Web-page-editing application that queries the protocol server for available Web controls and displays those controls to a user, who can then select and insert a Web control into a Web page.

### 1.4 Relationship to Other Protocols

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

The Content Area Toolbox Web Service Protocol uses SOAP over HTTP as shown in the following layering diagram:



**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/ContentAreaToolboxService.asmx"` to the URL of the site, for example `http://www.example.com/Repository/_vti_bin/ContentAreaToolboxService.asmx`.

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

### 1.6 Applicability Statement

This protocol was designed for toolbox panels that contain fewer than or equal to 100 **Web controls**.

### 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 described in section [2.1](#).
- **Localization:** This protocol includes text strings in various messages. Localization considerations for such strings are specified in section [3.1.4](#).

### 1.8 Vendor-Extensible Fields

None.

### 1.9 Standards Assignments

None.

## 2 Messages

### 2.1 Transport

Protocol servers MUST support **SOAP** over **HTTP**. Protocol servers SHOULD additionally support SOAP over **HTTPS** to help secure communications with protocol clients.

Protocol messages MUST be formatted as specified in [\[SOAP1.1\]](#) section 4 or [\[SOAP1.2/1\]](#) section 5. Protocol server faults MUST be returned by using either HTTP status codes, as specified in [\[RFC2616\]](#) section 10, or **SOAP faults**, as specified in [\[SOAP1.1\]](#) section 4.4 or [\[SOAP1.2/1\]](#) section 5.4.

### 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 [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#), 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  |
|--------|---|--|
| s      | <a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>   | <a href="#">[XMLSCHEMA1]</a><br><a href="#">[XMLSCHEMA2]</a> |
| soap12 | <a href="http://schemas.xmlsoap.org/wsdl/soap12/">http://schemas.xmlsoap.org/wsdl/soap12/</a>                                   | <a href="#">[SOAP1.2/1]</a><br><a href="#">[SOAP1.2/2]</a>   |
| tns    | <a href="http://schemas.microsoft.com/sharepoint/publishing/soap/">http://schemas.microsoft.com/sharepoint/publishing/soap/</a> |  |
| soap   | <a href="http://schemas.xmlsoap.org/wsdl/soap/">http://schemas.xmlsoap.org/wsdl/soap/</a>                                       | <a href="#">[SOAP1.1]</a>                                    |
| (none) | <a href="http://schemas.microsoft.com/sharepoint/publishing/soap/">http://schemas.microsoft.com/sharepoint/publishing/soap/</a> |  |
| wsdl   | <a href="http://schemas.xmlsoap.org/wsdl/">http://schemas.xmlsoap.org/wsdl/</a>   | <a href="#">[WSDL]</a>                                       |

#### 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.

Preliminary

## 3 Protocol Details

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

Except where specified, protocol clients SHOULD interpret HTTP status codes that are returned by the protocol server as specified in [\[RFC2616\]](#) section 10.

This protocol allows protocol servers to notify protocol clients of application-level faults by using **SOAP faults**. Except where specified, these SOAP faults are not significant for interoperability and can be interpreted by protocol clients 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 either HTTP status codes or SOAP faults, as specified in this section.

This protocol allows protocol servers to perform implementation-specific localization of text in various messages. Except where specified, the localization of this text is an implementation-specific behavior of the protocol server and is not significant for interoperability.

### 3.1 Server Details

#### 3.1.1 Abstract Data Model

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

The protocol server stores a collection of Web pages that are identified by URLs. Each Web page has an associated **content type**.

The protocol server also maintains a list of toolbox panels, which are mappings from a type of Web page, which is referred to as a content type, to the set of **Web controls** that can be used on that type of page.

The protocol server additionally maintains a shared toolbox panel, which contains a mapping of the set of Web controls that can be used by all types of Web pages.

Each toolbox panel has an associated identifier.

#### 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  |
|------------------------------------|--|
| <b>FetchControlLists</b>           | Enumerates the list of <b>Web controls</b> for a specific toolbox panel.           |
| <b>FetchPanelsInformationByUrl</b> | Enumerates information about the toolbox panels that are available for a Web page. |

### 3.1.4.1 FetchControlLists

The **FetchControlLists** operation enumerates the list of **Web controls** to display in a toolbox panel.

```
<wsdl:operation name="FetchControlLists">
  <wsdl:input message="tns:FetchControlListsSoapIn" />
  <wsdl:output message="tns:FetchControlListsSoapOut" />
</wsdl:operation>
```

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

If the toolbox panel with the identifier specified in the **controlListIds** element does not exist, then the protocol server MUST return to the protocol client a **SOAP fault** with **faultcode** (as specified in [\[SOAP1.1\]](#) section 4.4.1) set to Client. Otherwise, the protocol server MUST return information about the Web controls for the toolbox panel in the **FetchControlListsResult** element.

#### 3.1.4.1.1 Messages

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

| Message                         | Description   |
|---------------------------------|---|
| <b>FetchControlListsSoapIn</b>  | The request <b>WSDL message</b> for a <b>FetchControlLists WSDL operation</b> . |
| <b>FetchControlListsSoapOut</b> | The response WSDL message for a <b>FetchControlLists</b> WSDL operation.        |

##### 3.1.4.1.1.1 FetchControlListsSoapIn

The request **WSDL message** for a **FetchControlLists WSDL operation** (section [3.1.4.1](#)).

The **SOAP action** value is:

```
http://schemas.microsoft.com/sharepoint/publishing/soap/FetchControlLists
```

The **SOAP body** contains a **FetchControlLists** element (section [3.1.4.1.2.1](#)).

##### 3.1.4.1.1.2 FetchControlListsSoapOut

The response **WSDL message** for a **FetchControlLists** WSDL operation (section [3.1.4.1](#)).

The SOAP body contains a **FetchControlListsResponse** element (section [3.1.4.1.2.2](#)).

### 3.1.4.1.2 Elements

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

| Element                          | Description  |
|----------------------------------|--|
| <b>FetchControlLists</b>         | The input data of a <b>FetchControlLists WSDL operation</b> .  |
| <b>FetchControlListsResponse</b> | The result data of a <b>FetchControlLists WSDL operation</b> . |

#### 3.1.4.1.2.1 FetchControlLists

The input data of a **FetchControlLists WSDL operation** (section [3.1.4.1](#)).

```
<s:element name="FetchControlLists">
  <s:complexType>
    <s:sequence>
      <s:element name="controlListIds"/>
      <s:sequence>
        <s:element name="string" type="s:string" maxOccurs="unbounded"/>
      </s:sequence>
      <s:element name="cultureName" type="s:string"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

**controlListIds:** An array that contains a list of toolbox panel identifiers.

**controlListIds.string:** A **content type identifier**.

**cultureName:** The language tag, as specified in [\[RFC4646\]](#) and [\[RFC4647\]](#), that is used to **localize** data in the response **WSDL message**.

#### 3.1.4.1.2.2 FetchControlListsResponse

The result data of a **FetchControlLists WSDL operation** (section [3.1.4.1](#)).

```
<s:element name="FetchControlListsResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="FetchControlListsResult">
        <s:complexType>
          <s:sequence>
            <s:element name="string" type="s:string" minOccurs="0" maxOccurs="unbounded"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

**FetchControlListsResult:** An array that contains a list of **Web controls**.

**FetchControlListsResult.string:** An **XML document** that MUST conform to the following **XML schema**:

```

<s:schema elementFormDefault="unqualified" >
<s:element name="ControlsList" type="ControlsListType"/>
</s:schema>

```

### 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   |
|-------------------------|---|
| <b>ControlsListType</b> | Defines a set of <b>Web controls</b> for a toolbox panel. |
| <b>AssemblyType</b>     | Defines a group of Web controls.                          |
| <b>ControlType</b>      | Contains the metadata of a Web control.                   |

#### 3.1.4.1.3.1 ControlsListType

The **ControlsListType** complex type defines a set of **Web controls** for a toolbox panel.

```

<s:complexType name="ControlsListType">
  <s:sequence>
    <s:element name="Assembly" type="AssemblyType" minOccurs="0"
      maxOccurs="unbounded"/>
  </s:sequence>
</s:complexType>

```

**Assembly:** A set of Web controls. The element is present when the result data of a **FetchControlLists** WSDL operation returns at least one web control for a toolbox panel.

#### 3.1.4.1.3.2 AssemblyType

The **AssemblyType** complex type defines a group of **Web controls**.

```

<s:complexType name="AssemblyType">
  <s:sequence>
    <s:element name="Control" type="ControlType"
      maxOccurs="unbounded"/>
  </s:sequence>
  <s:attribute name="Name" type="s:string" use="required"/>
  <s:attribute name="Namespace" type="s:string" use="required"/>
  <s:attribute name="TagPrefix" type="s:string" use="required"/>
</s:complexType>

```

**Control:** The set of metadata for the Web control, as specified in section [3.1.4.1.3.3](#).

**Name:** The category for the group of Web controls.

**Namespace:** The subcategory for the group of Web controls.

**TagPrefix:** The identifier the group of Web controls.

#### 3.1.4.1.3.3 ControlType



The **ControlType** complex type defines the metadata of a **Web control**.

```
<s:complexType name="ControlType">
  <s:attribute name="Name" type="s:string" use="required"/>
  <s:attribute name="Title" type="s:string" use="required"/>
  <s:attribute name="Description" type="s:string" use="required"/>
  <s:attribute name="Template" type="s:string" use="required"/>
</s:complexType >
```

**Name:** Reserved. This value MUST be the same as the **Title** attribute and MUST be ignored by the protocol client.

**Title:** The display name of the Web control.

**Description:** The description of the Web control.

**Template:** The HTML snippet for the Web control. The protocol server generates this string by replacing "<tag-prefix>" with "{0}" in the following **Augmented Backus-Naur Form (ABNF)** grammar.

```
<template> = '<' tag-prefix ':' <control-name> <control-properties> '>' </' tag-prefix ':'
<control-name> '>'
<control-name> = 1*(TEXT)
<tag-prefix> = 1*(ALPHA)
<control-properties> = *<control-property>
<control-property> = ' ' <property-name> '=' DQUOTE <property-value> DQUOTE
<property-name> = 1*(ALPHA)
<property-value> = 1*(qdttext)
DQUOTE = <US-ASCII double-quote mark (34)>
qdttext = *QSAFE-CHAR
```

An example HTML snippet for the **DateTime** Web control:

```
<{0}:DateTime runat="server"> </{0}:DateTime>
```

#### 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 FetchPanelsInformationByUrl

The **FetchPanelsInformationByUrl** operation enumerates information about the toolbox panels that are available for a Web page, based on the **content type** that is associated with the page.

```
<wsdl:operation name="FetchPanelsInformationByUrl">
```

```

    <wsdl:input message="tns:FetchPanelsInformationByUrlSoapIn" />
    <wsdl:output message="tns:FetchPanelsInformationByUrlSoapOut" />
  </wsdl:operation>

```

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

If the Web page identified by the **pageLayoutURL** element does not exist in the collection of Web pages, then the protocol server MUST return to the protocol client a SOAP fault with **faultcode** set to Server.

Next, if the content type that is associated with the Web page does not exist in the list of toolbox panels, then the protocol server MUST return to the protocol client a SOAP fault with **faultcode** set to Server.

Otherwise, the protocol server MUST return a **FetchPanelsInformationByUrlResult** element that contains two **PanelInfo** elements. One **PanelInfo** element contains information about the shared toolbox panel, which is available to all types of Web pages. The other **PanelInfo** element contains information about the toolbox panel that maps to the content type that is associated with the Web page.

### 3.1.4.2.1 Messages

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

| Message                                   | Description   |
|---|---|
| <b>FetchPanelsInformationByUrlSoapIn</b>  | The request <b>WSDL message</b> for a <b>FetchPanelsInformationByUrl WSDL operation</b> . |
| <b>FetchPanelsInformationByUrlSoapOut</b> | The response WSDL message for a <b>FetchPanelsInformationByUrl WSDL operation</b> .       |

#### 3.1.4.2.1.1 FetchPanelsInformationByUrlSoapIn

The request **WSDL message** for a **FetchPanelsInformationByUrl WSDL operation**.

The **SOAP action** value is:

```
http://schemas.microsoft.com/sharepoint/publishing/soap/FetchPanelsInformationByUrl
```

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

#### 3.1.4.2.1.2 FetchPanelsInformationByUrlSoapOut

The response **WSDL message** for a **FetchPanelsInformationByUrl WSDL operation**.

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

### 3.1.4.2.2 Elements

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

| Element                                    | Description   |
|--|---|
| <b>FetchPanelsInformationByUrl</b>         | The input data for a <b>FetchPanelsInformationByUrl WSDL operation</b> .  |
| <b>FetchPanelsInformationByUrlResponse</b> | The result data for a <b>FetchPanelsInformationByUrl WSDL operation</b> . |

### 3.1.4.2.2.1 FetchPanelsInformationByUrl

The input data of a **FetchPanelsInformationByUrl WSDL operation**.

```
<s:element name="FetchPanelsInformationByUrl">
  <s:complexType>
    <s:sequence>
      <s:element name="pageLayoutUrl" type="s:string"/>
      <s:element name="cultureName" type="s:string"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

**pageLayoutUrl:** The **URL** for a **page layout**. It **MUST** be a URL as specified in [\[RFC1738\]](#).

**cultureName:** The **culture name**, as specified in [\[RFC4646\]](#) and [\[RFC4647\]](#), that is used to **localize** data in the response **WSDL message**.

### 3.1.4.2.2.2 FetchPanelsInformationByUrlResponse

The result data of a **FetchPanelsInformationByUrl WSDL operation**.

```
<s:element name="FetchPanelsInformationByUrlResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="FetchPanelsInformationByUrlResult" type="tns:ArrayOfPanelInfo"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

**FetchPanelsInformationByUrlResult:** An array of toolbox panel information.

### 3.1.4.2.3 Complex Types

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

| Complex type            | Description   |
|-------------------------|---|
| <b>ArrayOfPanelInfo</b> | Defines an array that contains information about a set of toolbox panels. |
| <b>PanelInfo</b>        | Specifies information about a toolbox panel.                              |

### 3.1.4.2.3.1 ArrayOfPanelInfo

The **ArrayOfPanelInfo** complex type defines an array that contains information about a set of toolbox panels.

```
<s:complexType name="ArrayOfPanelInfo">
  <s:sequence>
    <s:element name="PanelInfo" type="tns:PanelInfo" minOccurs="2" maxOccurs="2"/>
  </s:sequence>
</s:complexType>
```

**PanelInfo:** Information about a toolbox panel.

### 3.1.4.2.3.2 PanelInfo

The **PanelInfo** complex type specifies information about a toolbox panel.

```
<s:complexType name="PanelInfo">
  <s:sequence>
    <s:element name="displayName" type="s:string"/>
    <s:element name="controlListId" type="s:string"/>
    <s:element name="panelTypeIdentifier" type="s:int"/>
  </s:sequence>
</s:complexType>
```

**displayName:** The display name of the toolbox panel.

**controlListId:** The identifier of the toolbox panel. The value MUST be a content type identifier.

**panelTypeIdentifier:** The type of toolbox panel. It MUST be one of the following values:

| Value | Meaning  |
|-------|--|
| 0     | The information is about the shared toolbox panel.   |
| 2     | The information about the toolbox panel was retrieved by using the <b>content type</b> that is associated with the Web page. |

### 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.

### **3.1.5 Timer Events**

None.

### **3.1.6 Other Local Events**

None.

Preliminary

## 4 Protocol Examples

In this example, a protocol client displays a list of **Web controls** that can be added to Web pages that are using a page layout. The protocol client is an application that allows users to edit **page layouts**. To display the list, the protocol client constructs the following **WSDL message**, which queries the protocol server for the list of available Web controls:

```
<?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>
    <FetchPanelsInformationByUrl
xmlns="http://schemas.microsoft.com/sharepoint/publishing/soap/">
      <pageLayoutUrl>http://www.example.com/catalogs/masterpage/ArticleLeft.aspx</pageLayoutUrl>
      <cultureName>en-us</cultureName>
    </FetchPanelsInformationByUrl>
  </soap:Body>
</soap:Envelope>
```

The protocol server generates information for the two toolbox panels that are associated with the URL specified in the **pageLayoutUrl** element and returns the following **SOAP 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>
    <FetchPanelsInformationByUrlResponse
xmlns="http://schemas.microsoft.com/sharepoint/publishing/soap/">
      <FetchPanelsInformationByUrlResult>
        <PanelInfo>
          <displayName>Page Controls</displayName>
          <controlListId>0x010100C568DB52D9D0A14D9B2FDCC96666E9F2007
948130EC3DB064584E219954237AF39</controlListId>
          <panelTypeIdentifier>0</panelTypeIdentifier>
        </PanelInfo>
        <PanelInfo>
          <displayName>Article Page Controls</displayName>
          <controlListId>0x010100C568DB52D9D0A14D9B2FDCC96666E9F2007
948130EC3DB064584E219954237AF3900242457EFB8B24247815D688C5
26CD44D</controlListId>
          <panelTypeIdentifier>2</panelTypeIdentifier>
        </PanelInfo>
      </FetchPanelsInformationByUrlResult>
    </FetchPanelsInformationByUrlResponse>
  </soap:Body>
</soap:Envelope>
```

The protocol client then retrieves the list of Web controls that are associated with the shared toolbox panel by sending the following SOAP 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>
    <FetchControlLists xmlns="http://schemas.microsoft.com/sharepoint/publishing/soap/">
      <controlListIds>
        <string>0x010100C568DB52D9D0A14D9B2FDCC96666E9F2007
948130EC3DB064584E219954237AF39</string>
      </controlListIds>
    </FetchControlLists>
  </soap:Body>
</soap:Envelope>
```

```

    </controlListIds>
    <cultureName>en-us</cultureName>
  </FetchControlLists>
</soap:Body>
</soap:Envelope>

```

The protocol server determines that fifteen Web controls are associated with the shared toolbox panel and generates the following SOAP response:

```

<?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>
    <FetchControlListsResponse
xmlns="http://schemas.microsoft.com/sharepoint/publishing/soap/">
      <FetchControlListsResult>
        <string>&lt;?xml version="1.0" encoding="utf-16"?&gt;&lt;ControlsList&gt;&lt;Assembly
Name="Microsoft.SharePoint, Version=14.0.0.0, Culture=neutral,
PublicKeyToken=71e9bce111e9429c" Namespace="Microsoft.SharePoint.WebControls"
TagPrefix="wss"&gt;&lt;Control Name="Content Type" Title="Content Type" Description="The
Content Type field is a Computed Type field. Insert this control onto your page to include
this field in your page layout." Template="&lt;{0}:ComputedField
FieldName=&quot;ContentType&quot;"
runat="server" /&gt;&lt;Control
Name="Name" Title="Name" Description="The Name field is a File Type field. Insert this
control onto your page to include this field in your page layout."
Template="&lt;{0}:FileField FieldName=&quot;FileLeafRef&quot;"
runat="server" /&gt;&lt;Control
Name="Title" Title="Title" Description="The Title field is a Text Type field. Insert this
control onto your page to include this field in your page layout."
Template="&lt;{0}:TextField FieldName=&quot;Title&quot;"
runat="server" /&gt;&lt;Control
Name="Document Modified By" Title="Document Modified By" Description="The Document Modified
By field is a Text Type field. Insert this control onto your page to include this field in
your page layout." Template="&lt;{0}:TextField
FieldName=&quot;Modified_x0020_By&quot;"
runat="server" /&gt;&lt;Control
Name="Document Created By" Title="Document Created By" Description="The Document Created By
field is a Text Type field. Insert this control onto your page to include this field in your
page layout." Template="&lt;{0}:TextField FieldName=&quot;Created_x0020_By&quot;"
runat="server" /&gt;&lt;Control
Name="Description" Title="Description" Description="The Description field is a Note Type
field. Insert this control onto your page to include this field in your page layout."
Template="&lt;{0}:NoteField FieldName=&quot;Comments&quot;"
runat="server" /&gt;&lt;/Assembly&gt;&lt;Assembly Name="Microsoft.SharePoint.Publishing, Version=14.0.0.0,
Culture=neutral, PublicKeyToken=71e9bce111e9429c"
Namespace="Microsoft.SharePoint.Publishing.WebControls" TagPrefix="cmsc"&gt;&lt;Control
Name="Scheduling Start Date" Title="Scheduling Start Date" Description="The Scheduling Start
Date f
ield is a PublishingScheduleStartDateFieldType Type field. Insert this control onto your page
to include this field in your page layout."
Template="&lt;{0}:PublishingScheduleFieldControl
FieldName=&quot;PublishingStartDate&quot;"
runat="server" /&gt;&lt;Control Name="Scheduling End Date" Title="Scheduling End Date" Description="The
Scheduling End Date field is a PublishingScheduleEndDateFieldType Type field. Insert this
control onto your page to include this field in your page layout."
Template="&lt;{0}:PublishingScheduleFieldControl
FieldName=&quot;PublishingExpirationDate&quot;"
runat="server" /&gt;&lt;/Assembly&gt;&lt;Assembly Name="Microsoft.SharePoint, Version=14.0.0.0,
Culture=neutral, PublicKeyToken=71e9bce111e9429c"
Namespace="Microsoft.SharePoint.WebControls" TagPrefix="wss"&gt;&lt;Control Name="Contact"
Title="Contact" Description="The Contact field is a User Type field. Insert this control onto
your page to include this field in your page layout." Template="&lt;{0}:UserField

```

```

FieldName=&quot;PublishingContact&quot;;
runat=&quot;server&quot;&gt;&lt;/{0}:UserField&gt;" /&gt;&lt;Control
Name="Contact E-Mail Address" Title="Contact E-Mail Address" Description="The Contact E-Mail
Address field is a Text Type field. Insert this control onto your page to include this field
in your page layout." Template="&lt;{0}:TextField
FieldName=&quot;PublishingContactEmail&quot;;
runat=&quot;server&quot;&gt;&lt;/{0}:TextField&gt;" /&gt;&lt;Control
Name="Contact Name" Title="Contact Name" Description="The Contact Name field is a Text Type
field. Insert this control onto your page to include this field in your page layout."
Template="&lt;{0}:TextField FieldName=&quot;PublishingContactName&quot;;
runat=&quot;server&quot;&gt;&lt;/{0}:TextField&gt;" /&gt;&lt;Control
Name="Contact Picture" Title="Contact Picture" Description="The Contact Picture field is a
URL Type field. Insert this control onto your page to include this field in your page
layout." Template="&lt;{0}:UrlField
FieldName=&quot;PublishingContactPicture&quot;;
runat=&quot;server&quot;&gt;&lt;/{0}:UrlField&gt;" /&gt;&lt;Control
Name="Page Layout" Title="Page Layout" Description="The Page Layout field is a URL Type
field. Insert this control onto your page to include this field in your page layout."
Template="&lt;{0}:UrlField FieldName=&quot;PublishingPageLayout&quot;;
runat=&quot;server&quot;&gt;&lt;/{0}:UrlField&gt;"
/&gt;&lt;/Assembly&gt;&lt;Assembly Name="Microsoft.SharePoint.Publishing, Version=14.0.0.0,
Culture=neutral, PublicKeyToken=71e9bce111e9429c"
Namespace="Microsoft.SharePoint.Publishing.WebControls" TagPrefix="cmsc"&gt;&lt;Control
Name="Rollup Image" Title="Rollup Image" Description="The Rollup Image field is a Image Type
field. Insert this control onto your page to include this field in your page layout."
Template="&lt;{0}:RichImageField FieldName=&quot;PublishingRollupImage&quot;;
runat=&quot;server&quot;&gt;&lt;/{0}:RichImageField&gt;"
/&gt;&lt;/Assembly&gt;&lt;Assembly Name="Microsoft.Office.Server.UserProfiles,
Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce111e9429c"
Namespace="Microsoft.Office.Server.WebControls.FieldTypes"
TagPrefix="CustomTag_0"&gt;&lt;Control Name="Target Audiences" Title="Target Audiences"
Description="The Target Audiences field is a TargetTo Type field. Insert this control onto
your page to include this field in your page layout."
Template="&lt;{0}:SPFieldTargetToControl FieldName=&quot;Audience&quot;;
runat=&quot;server&quot;&gt;&lt;/{0}:SPFieldTargetToControl&gt;"
/&gt;&lt;/Assembly&gt;&lt;/ControlsList&gt;</string>
</FetchControlListsResult>
</FetchControlListsResponse>
</soap:Body>
</soap:Envelope>

```

Preli



## **5 Security**

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

None.

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

None.

Preliminary

## 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:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:tns="http://schemas.microsoft.com/sharepoint/publishing/soap/"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
targetNamespace="http://schemas.microsoft.com/sharepoint/publishing/soap/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">This web service is
  designed for FrontPage client to use</wsdl:documentation>
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/sharepoint/publishing/soap/">
      <s:element name="FetchPanelsInformationByUrl">
        <s:complexType>
          <s:sequence>
            <s:element name="pageLayoutUrl" type="s:string"/>
            <s:element name="cultureName" type="s:string"/>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="FetchPanelsInformationByUrlResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="FetchPanelsInformationByUrlResult" type="tns:ArrayOfPanelInfo"/>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:complexType name="ArrayOfPanelInfo">
        <s:sequence>
          <s:element name="PanelInfo" type="tns:PanelInfo" minOccurs="2" maxOccurs="2"/>
        </s:sequence>
      </s:complexType>
      <s:complexType name="PanelInfo">
        <s:sequence>
          <s:element name="displayName" type="s:string"/>
          <s:element name="controlListId" type="s:string"/>
          <s:element name="panelTypeIdentifier" type="s:int"/>
        </s:sequence>
      </s:complexType>
      <s:element name="FetchControlLists">
        <s:complexType>
          <s:sequence>
            <s:element name="controlListIds"/>
            <s:sequence>
              <s:element name="string" type="s:string" maxOccurs="unbounded"/>
            </s:sequence>
            <s:element name="cultureName" type="s:string"/>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="FetchControlListsResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="FetchControlListsResult">
              <s:complexType>
                <s:sequence>
                  <s:element name="string" type="s:string" minOccurs="0"
maxOccurs="unbounded"/>
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
  </wsdl:types>

```

```

        </s:element>
    </s:schema>
</wsdl:types>
<wsdl:message name="FetchPanelsInformationByUrlSoapIn">
    <wsdl:part name="parameters" element="tns:FetchPanelsInformationByUrl" />
</wsdl:message>
<wsdl:message name="FetchPanelsInformationByUrlSoapOut">
    <wsdl:part name="parameters" element="tns:FetchPanelsInformationByUrlResponse" />
</wsdl:message>
<wsdl:message name="FetchControlListsSoapIn">
    <wsdl:part name="parameters" element="tns:FetchControlLists" />
</wsdl:message>
<wsdl:message name="FetchControlListsSoapOut">
    <wsdl:part name="parameters" element="tns:FetchControlListsResponse" />
</wsdl:message>
<wsdl:portType
name="CMS_x0020_Content_x0020_Area_x0020_Toolbox_x0020_Info_x0020_serviceSoap">
    <wsdl:operation name="FetchPanelsInformationByUrl">
        <wsdl:input message="tns:FetchPanelsInformationByUrlSoapIn" />
        <wsdl:output message="tns:FetchPanelsInformationByUrlSoapOut" />
    </wsdl:operation>
    <wsdl:operation name="FetchControlLists">
        <wsdl:input message="tns:FetchControlListsSoapIn" />
        <wsdl:output message="tns:FetchControlListsSoapOut" />
    </wsdl:operation>
</wsdl:portType>
<wsdl:binding
name="CMS_x0020_Content_x0020_Area_x0020_Toolbox_x0020_Info_x0020_serviceSoap"
type="tns:CMS_x0020_Content_x0020_Area_x0020_Toolbox_x0020_Info_x0020_serviceSoap">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="FetchPanelsInformationByUrl">
        <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/publishing/soap/FetchPanelsInformationByU
rl" style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="FetchControlLists">
        <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/publishing/soap/FetchControlLists"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>
<wsdl:binding
name="CMS_x0020_Content_x0020_Area_x0020_Toolbox_x0020_Info_x0020_serviceSoap12"
type="tns:CMS_x0020_Content_x0020_Area_x0020_Toolbox_x0020_Info_x0020_serviceSoap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="FetchPanelsInformationByUrl">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/publishing/soap/FetchPanelsInformationByU
rl" style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
<wsdl:operation name="FetchControlLists">

```

```
<soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/publishing/soap/FetchControlLists"
style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
</wsdl:definitions>
```

Preliminary

## 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.

- Microsoft Office SharePoint Server 2007
- Microsoft SharePoint Server 2010
- Microsoft SharePoint Server 2013
- Microsoft SharePoint Server 2016
- Microsoft SharePoint Server 2019 Preview

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.

Preliminary

## 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](mailto:dochelp@microsoft.com).

| Section  | Description                         | Revision class |
|--|-------------------------------------|----------------|
| <a href="#">Z</a> Appendix B: Product Behavior | Updated list of supported products. | Major          |

## 9 Index

### A

Abstract data model  
[server](#) 13  
[Applicability](#) 10  
[Attribute groups](#) 12  
[Attributes](#) 12

### C

[Capability negotiation](#) 10  
[Change tracking](#) 30  
Client  
[overview](#) 13  
[Complex types](#) 11

### D

Data model - abstract  
[server](#) 13

### E

Events  
[local - server](#) 21  
[timer - server](#) 21  
Examples  
[overview](#) 22

### F

[Fields - vendor-extensible](#) 10  
[Full WSDL](#) 26

### G

[Glossary](#) 7  
[Groups](#) 12

### I

[Implementer - security considerations](#) 25  
[Index of security parameters](#) 25  
[Informative references](#) 9  
Initialization  
[server](#) 13  
[Introduction](#) 7

### L

Local events  
[server](#) 21

### M

Message processing  
[server](#) 13  
Messages  
[attribute groups](#) 12  
[attributes](#) 12

[complex types](#) 11  
[elements](#) 11  
[enumerated](#) 11  
[groups](#) 12  
[namespaces](#) 11  
[simple types](#) 12  
[syntax](#) 11  
[transport](#) 11

### N

[Namespaces](#) 11  
[Normative references](#) 8

### O

Operations  
[FetchControlLists](#) 14  
[FetchPanelsInformationByUrl](#) 17  
[Overview \(synopsis\)](#) 9

### P

[Parameters - security index](#) 25  
[Preconditions](#) 10  
[Prerequisites](#) 10  
[Product behavior](#) 29  
Protocol Details  
[overview](#) 13

### R

[References](#) 8  
[informative](#) 9  
[normative](#) 8  
[Relationship to other protocols](#) 9

### S

Security  
[implementer considerations](#) 25  
[parameter index](#) 25  
Sequencing rules  
[server](#) 13  
Server  
[abstract data model](#) 13  
[FetchControlLists operation](#) 14  
[FetchPanelsInformationByUrl operation](#) 17  
[initialization](#) 13  
[local events](#) 21  
[message processing](#) 13  
[overview](#) 13  
[sequencing rules](#) 13  
[timer events](#) 21  
[timers](#) 13  
[Simple types](#) 12  
[Standards assignments](#) 10  
Syntax  
[messages - overview](#) 11

### T

Timer events  
[server](#) 21  
Timers  
[server](#) 13  
[Tracking changes](#) 30  
[Transport](#) 11  
Types  
[complex](#) 11  
[simple](#) 12

## **V**

[Vendor-extensible fields](#) 10  
[Versioning](#) 10

## **W**

[WSDL](#) 26

Preliminary