

[MS-DADMWS]: Search Admin Web Service Protocol Specification

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1 Introduction

This document specifies the Search Service Administration Web Service Protocol. This protocol enables the protocol client to configure and control the indexing functions of the search system. It allows the protocol client to define the scope of indexing by configuring starting points and restriction rules, credentials used during indexing by the protocol server, and control when the indexing process takes place.

1.1 Glossary

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

- base64**
- certificate**
- domain**
- globally unique identifier (GUID)**
- Hypertext Transfer Protocol (HTTP)**
- Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**
- registry**
- share**
- Universal Naming Convention (UNC)**
- X.509**

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

- access URL**
- anchor content source**
- anchor crawl**
- authority hops**
- BLOB**
- Business Data Connectivity (BDC)**
- content source**
- cookie**
- crawl**
- crawl account**
- crawl mapping**
- crawl queue**
- crawl rule**
- crawler**
- delete crawl**
- display URL**
- exclusion list**
- file**
- file extension**
- full crawl**
- full-text index catalog**
- host hop**
- HTTP GET**
- HTTP POST**
- inclusion list**
- incremental crawl**
- index server**
- item**
- metadata index**
- page hop**

query component
search catalog
search query
search service account
search service application
security trimmer
site collection
SOAP (Simple Object Access Protocol)
SOAP action
SOAP body
start address
URI (Uniform Resource Identifier)
URL (Uniform Resource Locator)
URL encode
URL space
Web server
Web service
Web site
white space
WSDL (Web Services Description Language)
WSDL operation
XML namespace
XML namespace prefix
XML Schema

The following terms are specific to this document:

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

1.2 References

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information. Please check the archive site, <http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624>, as an additional source.

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1.2.2 Informative References

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1.3 Protocol Overview (Synopsis)

The Search Service Administration Web Service protocol enables a protocol client to configure and control the **crawl** function of the **search service application's index server**.

A crawl process involves traversal of the **URL space** by discovering and following the links from **items**. Before a crawl can be started, the URL space is defined by specifying a set of **start address URLs**. Often, a set of Crawl Rules are also defined. Crawl Rules can prevent the crawl from following links beyond desired boundaries of the potentially infinite unrestricted URL space, for example to prevent it from crawling the Internet. They can also define what authentication information will be used for a set of URLs.

During a crawl, the index server typically produces a set of data structures, such as the **full-text index catalog** and the **metadata index** that can be used to efficiently serve **search queries**.

A typical scenario for using this protocol involves the following steps:

- Configuring one or more **content sources** containing at least one start address.
- Configuring zero or more **crawl rules**.
- Starting a crawl.

1.4 Relationship to Other Protocols

The Search Service Administration Web Service protocol uses the **SOAP** messaging protocol for formatting requests and responses as specified either in [\[SOAP1.1\]](#) or in [\[SOAP1.2/1\]](#) and [\[SOAP1.2/2\]](#). It transmits these messages using the **HTTPS** protocol as specified in [\[RFC2818\]](#).

The following diagram shows the underlying messaging and transport stack used by the protocol:

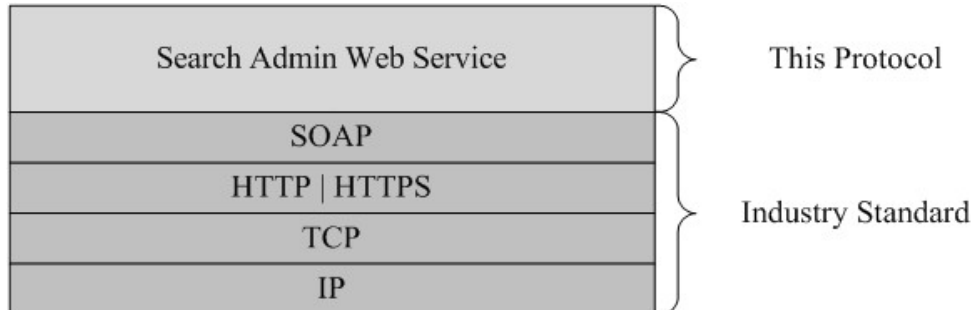


Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a **Web site (1)** that is identified by a URL that is known by protocol clients. The protocol server endpoint address is formed by concatenating the URL scheme "HTTPS", the scheme delimiter "://", the host name of the Web site, the port number "32844", the slash character '/', the search service application identifier, and "/SearchAdmin.svc" together, for example <https://www.contoso.com:32844/f21d6fcd409f4205ad77deca42591045/SearchAdmin.svc>.

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

1.6 Applicability Statement

This protocol is designed for configuring index server with not more than 500 content sources and crawl rules.

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses multiple transports with SOAP as specified in section [2.1](#).
- **Localization:** This protocol includes text strings in various messages. Localization considerations for such strings are specified in section [2.2](#) and section [3.1.4](#).

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

In the following sections, the schema definition might be less restrictive than 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 specifies additional restrictions that reflect protocol 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**, **present**, and **not null**.

2.1 Transport

Protocol servers **MUST** support SOAP over HTTPS. Protocol servers **MAY** additionally support SOAP over HTTP for securing communication with clients.

Protocol messages **MUST** be formatted as specified either in [\[SOAP1.1\]](#) section 4, or in [\[SOAP1.2/1\]](#) section 5. Protocol server faults **MUST** be returned using a **FaultException<ExceptionDetail>** message .

This protocol **MAY** transmit an additional SOAP header, the **ServiceContext** header, as specified in [\[MS-SPSTWS\]](#).

2.2 Common Message Syntax

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

2.2.2 Messages

None.

2.2.3 Elements

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

2.2.4 Complex Types

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

Complex Type	Description
ArrayOfString	An array of arbitrary string values.
ContentSourceDynamicPropsInternal	The crawl status of a content source with respect to the most recent crawl.
CrawlRuleInternal	The crawl rule properties.

2.2.4.1 ContentSourceDynamicPropsInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The **ContentSourceDynamicPropsInternal** type represents crawl status information for a content source.

```
<xs:complexType name="ContentSourceDynamicPropsInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="crawlCompleted" type="xs:dateTime"/>
    <xs:element minOccurs="0" name="crawlStarted" type="xs:dateTime"/>
    <xs:element minOccurs="0" name="crawlStatus" type="xs:int"/>
    <xs:element minOccurs="0" name="deleteCount" type="xs:int"/>
    <xs:element minOccurs="0" name="errorCount" type="xs:int"/>
    <xs:element minOccurs="0" name="levelHighErrorCount" type="xs:int"/>
    <xs:element minOccurs="0" name="successCount" type="xs:int"/>
    <xs:element minOccurs="0" name="warningCount" type="xs:int"/>
  </xs:sequence>
</xs:complexType>
```

crawlCompleted: MUST contain the completion time for the most recent crawl. If the content sources have not been crawled before or the crawl is currently in progress, this element MUST contain the value "1899-12-30T00:00:00".

crawlStarted: The start time for the most recent crawl. If no crawls have been started for the content source yet, this element MUST contain the value "1899-12-30T00:00:00".

crawlStatus: The crawl status. MUST be one of the following values:

Value	Meaning
0	No crawl is in progress.
1	A full crawl is in progress.
2	The crawl is paused, and no further activity will take place for the current crawl until the crawl is resumed.
4	The crawl is resuming after system startup.
5	The crawler application is shutting down as a result of the search service application shutting down.
6	An incremental crawl is in progress.
8	The crawl is being stopped. The request to stop the crawl has been received, but the crawl hasn't stopped yet.
9	The crawl is being paused. The request to pause the crawl has been received, but the crawl hasn't paused yet.
11	The crawl is being resumed. The request to resume the crawl has been received, but the crawl hasn't resumed yet.
12	The crawl is being started. The request to start the crawl has been received, but the crawl hasn't started yet.
13	The crawl has finished its task and is in the process of shutting down.

deleteCount: The number of items deleted during the most recent crawl. **deleteCount** MUST be greater than or equal to 0. If no crawls have been performed on the content source, the number MUST be 0.

errorCount: The number of items crawled with error during the most recent crawl. **errorCount** MUST be greater than or equal to 0. If no crawls have been performed on the content source, the number MUST be "0".

levelHighErrorCount: The number of important items crawled with error during the most recent crawl. Importance is measured by the number of items that can be crawled under a particular item. Assuming an item fails to get crawled, all of its child objects will also not be crawled. The higher the number of items that will be missed, the more important the item is. Important items SHOULD be chosen because crawl errors for these items are more useful for diagnosing crawl issues. [<1>](#)
levelHighErrorCount MUST be greater than or equal to 0. If no crawls have been performed on the content source, the number MUST be "0".

successCount: The number of items crawled successfully during the most recent crawl. **successCount** MUST be greater than or equal to 0. If no crawls have been performed on the content source, the number MUST be "0".

warningCount: The number of items crawled with warning during the most recent crawl. **warningCount** MUST be greater than or equal to 0. If no crawls have been performed on the content source, the number MUST be "0".

2.2.4.2 CrawlRuleInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The **CrawlRuleInternal** type represents the properties for a crawl rule.

```
<xs:complexType name="CrawlRuleInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="accountLastModified" type="xs:dateTime"/>
    <xs:element minOccurs="0" name="accountName" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="authData" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="authUrl" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="authenticationType" type="xs:int"/>
    <xs:element minOccurs="0" name="caseSensitiveURL" type="xs:boolean"/>
    <xs:element minOccurs="0" name="contentClass" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="crawlAsHttp" type="xs:boolean"/>
    <xs:element minOccurs="0" name="followComplexUrls" type="xs:boolean"/>
    <xs:element minOccurs="0" name="isAdvancedRegularExpression" type="xs:boolean"/>
    <xs:element minOccurs="0" name="miscData" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="pluggableSecurityTrimmerId" type="xs:int"/>
    <xs:element minOccurs="0" name="suppressIndexing" type="xs:boolean"/>
    <xs:element minOccurs="0" name="type" type="xs:int"/>
  </xs:sequence>
</xs:complexType>
```

accountLastModified: If **authenticationType** is set to "0", this element represents the most recent date the authentication information of the crawl rule was changed. Otherwise, this element represents the date the crawl rule was created. The time component of this element MUST always be "00:00:00".

accountName: If present, the length MUST be less than 256 characters. This element MUST be interpreted differently depending on the value of **authenticationType**. It MUST be one of the following values:

authenticationType value	accountName interpretation
0	MUST be ignored.
1	The user name for integrated authentication.
2	The user name for basic authentication.
3	The X.509 certificate name.
4	MUST be ignored.
5	MUST be ignored.

authData: If **authenticationType** is set to "4", this element represents the public authentication parameters for **authUrl**, according to the format of the **HTTP** form in **authUrl**. Otherwise, this element MUST be ignored.

authUrl: If **authenticationType** is set to "4", **authUrl** contains the URL for the forms-based authentication type. If present, the length MUST be less than 2048 characters. The forms-based authentication type implies an **HTTP GET** or an **HTTP POST** to the authentication URL, as specified in [\[RFC2616\]](#), to obtain the authorization **cookie**. Otherwise, this element MUST NOT be ignored. The format of this property is specified in the following table:

Property	Format
authUrl	method_flag ";" requestUrl
method_flag	"" / "p" / "g" / "P" / "G"

The Empty, "p", and "P" method_flag values correspond to a HTTP POST method of forms-based authentication. The "g" and "G" method_flag values correspond to a HTTP GET method of forms-based authentication. To perform forms-based authentication, the protocol server sends request data, in the format: **authdata "&" authPrivateData**, to the resource located at **requestUrl** using either HTTP GET or HTTP POST, depending on the value of **method_flag**. The following example illustrates the format of this property:

p;http://www.contoso.com:56737/login.aspx

authenticationType: The authentication type for accessing matching URLs. MUST be one of the following values:

Value	Meaning
0	Default access.
1	Integrated authentication.
2	Basic authentication. The user name and password are required for this authentication type.
3	Authentication using certificates (2) . A valid client certificate name is required for this authentication type.

Value	Meaning
4	forms-based authentication. A valid URL for HTTP POST or HTTP GET, public and private parameters, and a list of error pages are used by this authentication type.
5	Cookie based authentication. Private parameters and a list of error pages are used by this authentication type.

Default access implies integrated authentication using credentials of the default **crawl account** for the crawler application.

caseSensitiveURL: Specifies whether the crawl rule is case sensitive. It MUST be one of the following values:

Value	Meaning
false	The crawl rule matches the URL in a case-insensitive manner. The URLs of matching links are normalized to lowercase.
true	The crawl rule matches the URL in a case-sensitive manner. The URLs of matching links are not normalized to lowercase.

contentClass: Arbitrary metadata for the crawl rule. If present, the length MUST be less than 1024 characters.

crawlAsHttp: Specifies whether to use the HTTP protocol to crawl matching links with the http: scheme. Crawling with the HTTP protocol implies that the process relies on discovered links instead of getting the repository to provide the set of links that need to be crawled. It MUST be one of the following values:

Value	Meaning
false	The protocol server uses the default protocol to crawl the repository.
true	The protocol server crawls matching URLs with http: scheme using the HTTP protocol.

followComplexUrls: Specifies the crawl behavior on the matched URLs with the query component specified in [\[RFC2396\]](#) section 3.4. It MUST be one of the following values:

Value	Meaning
false	Matching URLs with the query component MUST be discarded during the crawl.
true	Matching URLs with the query component MUST be followed during the crawl.

isAdvancedRegularExpression: Specifies whether the crawl rule uses regular expression syntax when matching links. It MUST be one of the following values:

Value	Meaning
false	Crawl rule does not use regular expression syntax to match URL.
true	Crawl rule uses regular expression syntax to match URL.

miscData: If **authenticationType** is set to "4" or "5", this element represents a collection of error page URLs. When requests to retrieve content get redirected by item repositories during a crawl, these error page URLs are used to determine authentication errors. If **authenticationType** is set to "0", "1", "2", or "3", this element MUST be ignored. If present, the format of this property is specified in the following table:

Property	Format
miscData	*(errorPage ";")

The following example illustrates the format of this property:

```
<errorPage1>;<errorPage2>
```

path: A crawl rule path expression. **path** MUST be present, and the length MUST be greater than 0 and less than 2048 characters. It MUST be either a **Universal Naming Convention (UNC)** path or a URL, with the following characters allowed: '*' and '?'.

pluggableSecurityTrimmerId: The **security trimmer** identifier.

suppressIndexing: MUST be one of the following values:

Value	Meaning
false	The protocol server MUST index the content of items at any URLs that match the URL specified for the crawl rule path .
true	The protocol server MUST NOT index the content of items at any URLs that match the URL specified for the crawl rule path .

type: The crawl rule type. MUST be one of the following values:

Value	Meaning
0	Inclusion rule. URLs matching the path are included in the crawl.
1	Exclusion rule. URLs matching the path are not included in the crawl.

2.2.4.3 ArrayOfstring (from namespace <http://schemas.microsoft.com/2003/10/Serialization/Arrays>)

The **ArrayOfString** type represents an array of arbitrary string values.

```
<xs:complexType name="ArrayOfstring">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="string" nillable="true"
      type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

string: A single string value.

2.2.5 Simple Types

2.2.5.1 SharePointCrawlBehavior (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Administration>)

The **SharePointCrawlBehavior** simple type represents the type of the crawl performed while crawling sites.

```
<xs:simpleType name="SharePointCrawlBehavior">
  <xs:restriction base="xs:string">
    <xs:enumeration value="CrawlVirtualServers"/>
    <xs:enumeration value="CrawlSites"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for SharePointCrawlBehavior:

Value	Meaning
CrawlVirtualServers	The entire Web applications pointed to by start addresses are crawled.
CrawlSites	Only the specific sites pointed to by the start addresses are crawled without enumerating all sites in the Web application.

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

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

In the following sections, the schema definition might be less restrictive than 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 specifies additional restrictions that reflect protocol 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, present, and not null.

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

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

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 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.

3.1.1.1 Object Hierarchy

The protocol server maintains a hierarchy of objects representing state of the Search Service Administration Web Service protocol. The properties of these objects affect the behavior of the index server during the crawl.



Figure 2: Object hierarchy

3.1.1.2 Crawler Application

This is the top level object of the hierarchy. There is one instance of the crawler application per search service application. Accordingly, there is one instance of the server endpoint for this protocol, the **Web service** URL.

activeDocuments: The list of URLs of items currently being crawled by the index server.

clientCertificateNames: The list of names of X.509 client certificates used by crawl rules with authentication type of 3.

contentSourcesMetadata: A custom metadata string associated with the crawler application. The value of this property is ignored by the protocol server, but can be interpreted by the protocol client to associate arbitrary metadata with the collection of content sources.

defaultCrawlingAccount: The name of the crawl account that the index server uses to authenticate itself during the crawl, unless a specific account is specified in a matching crawl rule.

defaultCrawlingAccountPassword: The password required for authentication of the **defaultCrawlingAccount**.

extension: A list of file name extensions recognized by the index server. The index server parses all links discovered during the crawl and extracts the file extension from them. The file extension is checked against the **extension** list. Depending on the setting of **isExtensionIncludeList** property the link may be discarded or added to the **crawl queue**.

isExtensionIncludeList: A Boolean value that specifies whether the list of file extensions in **extension** is an **inclusion list** or an **exclusion list**. If true, **extension** is an inclusion list; otherwise, **extension** is an exclusion list.

listKnownLotusNotesServers: The list of known Lotus Notes server names. This is specific for crawl configuration for Lotus Notes content sources.

lotusNotesConfigured: If true, the Lotus Notes configuration was complete. This is specific for crawl configuration of the Lotus Notes content source. The configuration details for a Lotus Notes content source is specific to the implementation of the index server, but as far as this protocol is concerned the protocol server MUST be aware when the Lotus Notes configuration took place and communicate this information to the protocol client.

name: A **GUID** that uniquely identifies the crawler application.

pauseReason: A 32-bit number that contains the set of reasons why the **search catalog** is paused. Each bit indicates a particular reason. If there is more than one reason why the search catalog was paused, multiple bits corresponding to the reasons are turned on. The search catalog is resumed when all bits are turned off. MUST only turn on the following bits:

Value	Meaning
0x00000001	Paused because a certain unspecified internal event was not initiated by the protocol client.
0x00000002	Paused because a certain unspecified internal event was not initiated by the protocol client.
0x00000004	Paused for back-up/restore.
0x00000008	Paused for query component (2) initialization.
0x00000010	Paused because a certain unspecified internal event was not initiated by the protocol client.

propertyBag: A collection of name/value pairs for storing arbitrary values. A value can be retrieved using the same name with which it was stored previously.

registryVersion: The version of the settings stored in the **registry** for this crawler application. The version is incremented whenever the settings are updated.

retryLimit: The number of times the index server will retry fetching the item from any content source, (for example, a **Web server**) during the crawl in case certain types of recoverable protocol errors occur, for example, timeouts.

version: The configuration version of this crawler application. The version MUST be incremented whenever the application state is updated by the protocol client. Any method that updates the application state requires the last known configuration version from the protocol client. If the protocol client version does not match with the current application version, the operation fails. This

will typically happen when multiple protocol clients try to update the application state at the same time.

3.1.1.3 Content Source

The crawler application contains a collection of zero or more content source objects. Each object represents a content source that is used to start a crawl on the index server.

crawlCompleted: The timestamp of when the most recent crawl was completed for this content source.

crawlPriority: Priority of crawl processing for this content source. It MUST be one of the following values:

Value	Meaning
1	Normal
2	High. When picking the next URL to crawl from the crawl queue, the protocol server MUST give preferential consideration to every URL discovered from crawling high priority content sources over any URL discovered from crawling normal priority content sources.

crawlStarted: The timestamp of when the most recent crawl was started for this content source.

crawlStatus: Identifies whether a crawl for this content source is idle, paused, stopped, or running. Also identifies the type of crawl, either full crawl or incremental crawl.

deleteCount: The number of items deleted during the most recent crawl.

errorCount: The number of items, during the most recent crawl, where the crawler attempted to crawl the items, but did not succeed.

followDirectories: If set to "true", only links provided by the repository being crawled are followed during the crawl, and links discovered within items are discarded. If set to "false", only links discovered within items are followed.

fullCrawlTrigger: Defines the full crawl schedule. The crawl can be started either by explicit request from the protocol client, automatically, or at specified points of time according to the schedule.

id: The unique identifier of the content source in the collection. Assigned by the protocol server when a new content source is added.

incCrawlTrigger: Defines the incremental crawl schedule.

levelHighErrorCount: The number of important items crawled with error during the most recent crawl.

metadata: The arbitrary metadata associated by the protocol client with the content source. The value of this property is ignored by the protocol server, but can be interpreted by the protocol client to associate arbitrary metadata with the collection of content sources.

name: The content source name. This is the label intended to be read in user interfaces, for example by search administrators.

pageDepth: The maximum permitted depth of the URL space traversal, including traversal within a single site or across different sites. Whenever a link is followed by the index server during the crawl

the depth counter is incremented. The depth counter cannot increase beyond the **pageDepth** of the content source. For example, if the **pageDepth** is set to "1" and Page A links to Page B, which links to Pages C and D, then neither pages C or D will be crawled because the depth counter would exceed **pageDepth**.

siteDepth: The depth of the URL space traversal in terms of **authority hops**. This is analogous to the **pageDepth** variable, but at a **domain** level. A server domain hop is made when a link points to a URL from a different server domain. Whenever a link is followed by the index server during the crawl to a different host (or item repository server), the site depth counter is incremented. The site depth counter cannot exceed the **siteDepth** of the content source.

startAddress: The start address URL. The first step of starting the crawl is to add the start address URLs to the crawl queue. The crawl then begins by following links from these start addresses.

successCount: The number of items successfully crawled during the most recent crawl.

systemCreated: If true, the content source was created during the initial system configuration and cannot be deleted by the protocol client. Any content sources added by the protocol client will have the **systemCreated** set to "false".

type: The content source type. This type is used by the **crawler** to determine which technology to use to crawl the repository pointed to by the start addresses. MUST be one of the following values:

Value	Meaning
0	Enables specifying settings that control the depth of crawl for a website based on the start address server, host hops, and page depth.
1	Enables specifying settings that control the depth of crawl for a website based on discovering everything under the hostname for each start address or only crawling the site collection of each start address.
2	Lotus Notes database.
3	File shares.
4	Exchange public folders.
5	Custom.
6	Legacy<2> Business Data Catalog.
8	Custom search connector.
9	Business Data Connectivity (BDC).

warningCount: The number of items crawled with warning during the most recent crawl.

wssCrawlStyle: The type of the crawl performed while crawling sites. MUST be one of the following values:

Value	Meaning
CrawlVirtualServers	The entire set of Web applications pointed to by the start addresses are crawled.
CrawlSites	Only the specific sites pointed to by the start addresses are crawled, without enumerating all sites in the Web application.

throttleBegin: This property is not interpreted by the protocol server. It can be set and retrieved by the protocol client.

throttleDuration: This property is not interpreted by the protocol server. It can be set and retrieved by the protocol client.

3.1.1.4 Crawl Rule

The crawler application contains an ordered collection of zero or more crawl rule objects. Crawl rules are used to selectively restrict the URL space of the crawl. When a new link is discovered during the crawl, only the portion of the link up to, but not including, the query component, as described in [\[RFC2396\]](#) section 3.4, is checked against the crawl rules to determine if the item will be included in or excluded from the crawl.

Crawl rules contain a wildcard expression that can be matched against the URL of the link. All characters in the link are matched exactly against the expression, except the wildcards. Only two wildcard characters are allowed: '*' and '?'. The '*' wildcard character matches 0 or more arbitrary characters. The '?' wildcard character matches any single character.

Because of the presence of the wildcards in the crawl rules, the evaluation order of the rules is important. The first rule found to match the link determines the crawl behavior for that link.

The crawl rule can also specify authentication parameters for accessing items that match certain URLs.

accountLastModified: The most recent date the authentication information of the crawl rule was changed.

accountName: The user name for integrated authentication or basic authentication.

authData: When **authenticationType** is set to "4", this is the portion of the opaque authentication **BLOB** used for forms-based authentication that does not need to be stored securely.

authPrivateData: When **authenticationType** is set to "4", this is the portion of the opaque authentication BLOB used for forms-based authentication that needs to be stored securely.

authUrl: When **authenticationType** is set to "4", this property contains the authentication method and URL.

authenticationType: The authentication type the index server will use for the matching URLs.

caseSensitiveURL: If set to "true", links are matched in a case-sensitive manner, and URLs of matching links are not normalized to lowercase; otherwise, links are matched in a case-insensitive manner, and URLs of matching links are normalized to lowercase.

certificateName: When **authenticationType** is set to "3", this is the X.509 certificate used for authentication.

contentClass: Arbitrary metadata for the crawl rule. The content of this property can be interpreted by the index server as additional context used during the crawl of a particular item repository. As far as this protocol is concerned, the value of this property can be modified and retrieved by the protocol client.

cookieName: When **authenticationType** is set to "5", this is the opaque cookie used for cookie-based authentication.

crawlAsHttp: If set to "true", matching links with an HTTP: scheme are crawled using the HTTP protocol, regardless of the default protocol normally used to crawl the repository. Crawling with the HTTP protocol implies that the process relies on discovered links instead of the repository providing the set of links that need to be crawled.

followComplexUrls: If set to "true", links that have query components as described in [\[RFC2396\]](#) section 3.4 are followed by the crawl. Links that have query components are discarded, even if the crawl rule type is set to "0".

isAdvancedRegularExpression: If set to "true", regular expression syntax is used to match links; otherwise regular expression syntax is not used.

miscData: When **authenticationType** is set to "4" or "5", this is a list of error page URLs used to identify authentication errors.

password: The account password for integrated authentication or basic authentication.

path: The wildcard expression of the crawl rule. This also serves as a unique identifier of the crawl rule in the collection.

pluggableSecurityTrimmerId: The protocol server can interpret this property as an identifier of a component that can validate if a user issuing the search query has read permission on the item. Any item corresponding to the link matching this crawl rule is assigned the security trimmer identifier if the **pluggableSecurityTrimmerId** was set for the crawl rule.

suppressIndexing: If set to "true", content of the URLs matching the crawl rule are not indexed, even if the crawl rule **type** is set to "0", (include). The links discovered from the matching URLs can still be followed during the crawl.

type: If set to "0", the links matching the crawl rule are included in the crawl URL Space; otherwise they are excluded.

The following examples of possible implementation of various authentication types by the index server are provided for information only. The details are specific to the protocol server implementation.

- Integrated authentication using the account credentials specified for the crawl rule.
- Basic authentication can be accomplished by passing the account and the password to the item repository in plain text.
- Authentication using certificates can be accomplished by presenting to the item repository a valid client certificate by the index server.
- Forms-based authentication can be accomplished by issuing an HTTP GET or HTTP POST against a specified form URL with required fields, acquiring a cookie from the form server and presenting the cookie in subsequent HTTP requests.
- Cookie based authentication can be accomplished by presenting a persistent cookie in the HTTP requests to the item repository.

3.1.1.5 Anchor Content Source

The crawler application contains a single instance of the **anchor content source**. The anchor content source represents the status of the **anchor crawl**.

crawlStatus: The status of the anchor crawl. **crawlStatus** specifies whether the anchor crawl is currently in progress or not.

crawlStarted: The timestamp of when the last anchor crawl started.

crawlCompleted: The timestamp of when the last anchor crawl completed.

3.1.1.6 Crawl Mapping

The crawler application contains a collection of zero or more **crawl mapping** objects. Each crawled item has two URLs: **access URL** and **display URL**. The index server uses the access URL to obtain the item from the item repository, and it uses the display URL as a URL of the item to store in the metadata index. The display URL is returned to the users if the URL is requested in the search query. During the crawl the access URL and display URL of every item is checked against the crawl mapping objects. The match occurs if any prefix of the URL that covers complete path segments as described in [\[RFC2396\]](#), 3.3|Path Component, is equal to the **Source** or **Target** property of the mapping. If multiple mappings match the URL, the mapping that matches the longest prefix is chosen. For example, <http://site/pathseg1/pathseg2/file.htm> matches <http://site/>, or <http://site/pathseg1/>, or <http://site/pathseg1/pathseg2/>, but does not match <http://saite/pathseg1/path>.

If the access URL matches the **Source** property of the mapping, the matching prefix will be replaced by the **Target** property to construct the display URL. The suffix of the URL will be preserved.

The crawl mappings collection does not allow mappings with duplicate **Source** or **Target** properties.

- **Source:** source URL prefix for access URLs.
- **Target:** target URL prefix for the display URLs.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

This specification includes the following **WSDL operations**:

WSDL Operation	Description
AddAdvancedCrawlRule	This operation is used to create a new crawl rule for the crawler application. It allows two more parameters to be specified than the AddCrawlRule operation.
AddContentSource	This operation is used to create a new content source in the crawler application.
AddCrawlMapping	This operation creates a new crawl mapping for the crawler application.
AddCrawlRule	This operation is used to create a new crawl rule for the crawler application.

WSDL Operation	Description
AddExtension	This operation is used to add a file extension to the file extensions collection contained in the crawler application.
CatalogPauseStatus	This operation is used to retrieve the pauseReason property of the crawler application.
ClearExtensionList	This operation is used to empty the list of file extensions recognized by the index server.
EditContentSource	This operation is used to edit the content source properties in the crawler application.
GetConnectorProperty	This operation is used to retrieve a previously stored value from the propertyBag collection of the crawler application.
GetContentSources	This operation is used to get information about all the content sources for the specified project of the crawler application.
GetContentState	This operation is used to retrieve the states and various properties of the crawler application.
GetCrawlMappings	This operation is used to retrieve all crawl mappings existing in the crawler application.
GetCrawlRuleList	This operation is used to retrieve the crawler application's list of crawl rules.
GetExtensionList	This operation is used to retrieve the crawler application's list of file extensions.
GetVersion	This operation is used to retrieve the configuration version of the crawler application.
IncreaseRegistryVersion	This operation is used increase the registry version of the crawler application by one.
IncrementVersion	This operation is used to increase the configuration version of the crawler application by one.
IsAnchorCrawlIdle	This operation is used to check if an anchor crawl in the crawler application is in progress.
IsCaseSensitiveURL	This operation is used to check if the crawler application treats the specified URL in a case sensitive manner.
IsCatalogPauseCompleted	This operation is used to check if the action of pausing all crawls on the crawler application for the specified reason has been completed.
IsDeleteCrawlInProgress	This operation is used to check if a delete crawl in the crawler application is in progress.
IsExtensionIncludeList	This operation is used to determine whether the file extensions list in the crawler application is an inclusion list or an exclusion list.
ListKnownLotusNotesDatabases	This operation is used to retrieve a list of known Lotus Notes database names for a given Lotus Notes server name.

WSDL Operation	Description
PauseCrawl	This operation is used to pause a crawl of a content source of the crawler application.
RefreshAnchorContentSource	This operation is used to retrieve the current status of the anchor content source of the crawler application.
RefreshContentSource	This operation is used to retrieve the current status of a content source from the crawler application.
RemoveContentSource	This operation is used to remove a content source from the crawler application.
RemoveCrawlMapping	This operation is used to remove a crawl mapping from the crawler application.
RemoveCrawlRule	This operation removes a crawl rule from the crawler application.
RemoveExtension	This operation is used to remove a file extension from the <i>extensions</i> list defined for the crawler application.
ResumeCrawl	This operation is used to resume a crawl of a content source of the crawler application.
SetConnectorProperty	This operation is used to store a value in the propertyBag collection of the crawler application.
SetContentSourcesMetadata	This operation is used to set the metadata property associated with the crawler application. This metadata string is intended for protocol client use only, the protocol server just stores it without interpreting. Once set, metadata string can be obtained by calling GetContentSources operation.
SetCrawlRuleCredentials	This operation is used to configure the authentication method and crawl account for a crawl rule.
SetCrawlRuleCredentials2	This operation is used to configure the authentication method and crawl account for a crawl rule.
SetCrawlRulePriority	This operation is used to modify the order of the crawl rules in the ordered collection of the crawl rules in the crawler application.
SetDefaultGatheringAccount	This operation is used to set the default crawl account for the crawler application.
SetIsExtensionIncludeList	This operation is used to set whether the list of file extensions in the crawler application is an inclusion list or an exclusion list.
SetRetryLimit	This operation is used to set the retry limit for the crawler application.
StartCrawl	This operation is used to start a crawl of a content source of the crawler application.
StartRankingUpdate	This operation is used to start the anchor crawl of the anchor content source. The anchor crawl cannot be stopped by the protocol client.

WSDL Operation	Description
StopCrawl	This operation is used to stop a crawl of a content source of the crawler application.
TestCrawlRule	This operation is used to check if a specified URL matches the specified crawl rule.
TestCrawlRules	This operation is used to find the first crawl rule in the crawler application's crawl rules collection that matches a specified URL
UpdateCrawlRule	This operation is used to update a crawl rule for the crawler application.
ValidateScheduleTrigger	This operation is used to validate that a trigger, as specified in [MS-TSCH] , 2.4.2.11 Triggers, can be used to schedule a crawl
WaitForInProgressAnchorCrawlToComplete	This operation is used to wait until no anchor crawl is in progress.

3.1.4.1 AddAdvancedCrawlRule

This operation is used to create a new crawl rule for the crawler application. It allows two more parameters to be specified than the [AddCrawlRule](#) operation.

```
<wsdl:operation name="AddAdvancedCrawlRule">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRule"
    message="tns:ISearchApplicationAdminWebService_AddAdvancedCrawlRule_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRuleResponse"
    message="tns:ISearchApplicationAdminWebService_AddAdvancedCrawlRule_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_AddAdvancedCrawlRule_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_AddAdvancedCrawlRule_OutputMessage` response message, as follows:

- If **isAdvancedRegularExpression** is true, the protocol server MUST throw a **FaultException<ExceptionDetail>** message when path is not a valid regular expression, as specified in [\[MC-ReqEx\]](#).
- The protocol server MUST normalize the **path** element from the request message as follows:
 - If the path is empty or contains only white-space characters, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
 - If the length of the path is greater than or equal to 2048 characters, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
 - If the path is a UNC path expression, the protocol server MUST convert it to the URL with a "file" URL scheme as described in [\[RFC2396\]](#), 3.1|Scheme Component.

- If the path is not a UNC path expression, the protocol server MUST replace all `\\` characters with the `/` character.
- If the URL scheme, as described in [\[RFC2396\]](#), 3.1|Scheme Component is not specified in the path, the protocol server MUST prepend path with the "http" scheme.
- If prepending the path with the "http" scheme causes the length of the resulting path to become greater than or equal to 2048 characters, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the URL scheme, as described in [\[RFC2396\]](#) section 3.1, in the path is not "http" or "https", and the host name in the path contains a '@' character, a '#' character, a '|' character, or a white-space character, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- Store the current path as a **displayPath** to be used later as a **path** property.
- If the URL scheme as described in [\[RFC2396\]](#), 3.1|Scheme Component in the path is "http" or "https", the protocol server MUST convert it to a **URL-encoded** string.
- If a crawl rule with the same normalized path already exists in the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the protocol server has not thrown an exception, it MUST now create a new crawl rule with:
 - **path** property set to the **displayPath** obtained during **path** normalization stage
 - **isIncludeRule** property set to the isIncludeRule element from the request message
 - **isAdvancedRegularExpression** property set to the isAdvancedRegularExpression element from the request message.
 - **caseSensitiveURL** property set to the caseSensitiveUR element from the request message.
- The protocol server MUST add the created crawl rule to the end of the crawl rules collection in the crawler application.
- If the crawl rule was successfully added, the protocol server MUST return the normalized **path** property of the newly created crawl rule in the **AddCrawlRuleResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.1.1 Messages

3.1.4.1.1.1

ISearchApplicationAdminWebService_AddAdvancedCrawlRule_InputMessage

The requested WSDL message for the **AddAdvancedCrawlRule** WSDL operation.

The **SOAP action** value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRule
```

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

3.1.4.1.1.2

ISearchApplicationAdminWebService_AddAdvancedCrawlRule_OutputMessage

The response WSDL message for the **AddAdvancedCrawlRule** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRuleResponse
```

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

3.1.4.1.2 Elements

3.1.4.1.2.1 AddAdvancedCrawlRule

The input data for the **AddAdvancedCrawlRule** WSDL operation.

```
<xs:element name="AddAdvancedCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="isIncludeRule" type="xs:boolean"/>
      <xs:element minOccurs="0" name="isAdvancedRegularExpression" type="xs:boolean"/>
      <xs:element minOccurs="0" name="caseSensitiveUR" type="xs:boolean"/>
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

isIncludeRule: An interpretation of the rule which **MUST** contain one of the values specified in the following table:

Value	Meaning
True	Inclusion rule. URLs matching the path are included in the crawl.
False	Exclusion rule. URLs matching the path are not included in the crawl.

isAdvancedRegularExpression: If true, regular expression syntax is used to match links; otherwise, regular expression syntax is not used. For a http://www.cs.utah.edu/dept/old/texinfo/regex/regex_toc.html

caseSensitiveUR: If true, links are matched in a case sensitive manner, and URLs of matching links are not normalized to lower case; otherwise, links are matched in a case insensitive manner, and URLs of matching links are normalized to lower case.

path: A crawl rule path expression. **MUST** be present and the length **MUST** be greater than 0 and less than 2048 characters.

3.1.4.1.2.2 AddAdvancedCrawlRuleResponse

The result data for the **AddAdvancedCrawlRule** WSDL operation.

```
<xs:element name="AddAdvancedCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="AddAdvancedCrawlRuleResult" nillable="true"
type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

AddAdvancedCrawlRuleResult: The normalized crawl rule path expression used by the protocol server. MUST be present and the length MUST be greater than 0 and less than 2048 characters.

3.1.4.2 AddContentSource

This operation is used to create a new content source in the crawler application.

```
<wsdl:operation name="AddContentSource">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddContentSource"
message="tns:ISearchApplicationAdminWebService_AddContentSource_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddContentSourceResponse"
message="tns:ISearchApplicationAdminWebService_AddContentSource_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_AddContentSource_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_AddContentSource_OutputMessage` response message, as follows:

- The protocol server creates a new content source with the properties **type**, **wssCrawlStyle** and **name** set to the values of the corresponding elements in the request message.
- The **id** property of the newly created content source MUST be unique within the collection of content sources.
- If the content source is created successfully, the protocol server MUST return the content source identifier in the **AddContentSourceResult** element in the response message.
- For any error, the protocol server MUST send a **FaultException**<**ExceptionDetail**> message to the protocol client.

3.1.4.2.1 Messages

3.1.4.2.1.1

ISearchApplicationAdminWebService_AddContentSource_InputMessage

The requested WSDL message for the **AddContentSource** WSDL operation.

The SOAP action value is:

http://tempuri.org/ISearchApplicationAdminWebService/AddContentSource

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

3.1.4.2.1.2

ISearchApplicationAdminWebService_AddContentSource_OutputMessage

The response WSDL message for the **AddContentSource** method.

The SOAP action value is:

http://tempuri.org/ISearchApplicationAdminWebService/AddContentSourceResponse

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

3.1.4.2.2 Elements

3.1.4.2.2.1 AddContentSource

The input data for the **AddContentSource** WSDL operation.

```
<xs:element name="AddContentSource">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="type" type="xs:int"/>
      <xs:element minOccurs="0" name="wssCrawlStyle"
xmlns:q9="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Administrati
on" type="q9:SharePointCrawlBehavior"/>
      <xs:element minOccurs="0" name="name" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to 0.

currentUser: User name of the current logged on user, used for auditing purposes.

type: The content source type. **MUST** be one of the following values:

Value	Meaning
0	Enables specifying settings that control the depth of crawl for a web site based on start address server, host hops and page depth
1	Enables specifying settings that control the depth of crawl for a web site based on discovering everything under the hostname for each start address or only crawling the site collection of each start address
2	Lotus Notes database
3	File shares

Value	Meaning
4	Exchange public folders
5	Custom
6	Legacy<3> Business Data Catalog
8	Custom search connector
9	Business Data Connectivity (BDC)

wssCrawlStyle: The type of the crawl performed while crawling sites. This element MUST be present and MUST conform to the schema of the SharePointCrawlBehavior simple type.

name: The content source name. This element MUST be present. The length of the content source name MUST be less than or equal to 255 characters. The specified name MUST be unique among the content source names existing in the crawler application.

3.1.4.2.2 AddContentSourceResponse

The result data for the **AddContentSource** WSDL operation.

```
<xs:element name="AddContentSourceResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="AddContentSourceResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

AddContentSourceResult: Identifier of the newly created content source. MUST be greater than 0.

3.1.4.3 AddCrawlMapping

This operation creates a new crawl mapping for the crawler application.

```
<wsdl:operation name="AddCrawlMapping">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlMapping"
    message="tns:ISearchApplicationAdminWebService_AddCrawlMapping_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlMappingResponse"
    message="tns:ISearchApplicationAdminWebService_AddCrawlMapping_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_AddCrawlMapping_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_AddCrawlMapping_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.

- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- The protocol server MUST normalize the source and target strings as follows:
 - Trim the leading and trailing spaces.
 - Remove the final character if it is the back slash ('\') character, or the forward slash (/) character.
 - If the source and target strings become the same, (case insensitive), after the previous step, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
 - If the URL scheme as described in [\[RFC2396\]](#), 3.1|Scheme Component is not present, and string is not an UNC path, the protocol server MUST prepend the path with the "http" scheme.
 - If the URL scheme, as described in [\[RFC2396\]](#), 3.1|Scheme Component is "file", convert the string to a UNC path, removing "file" prefix from the string, and replacing every forward slash (/) character with the back slash ('\') character.
 - If the URL scheme, as described in [\[RFC2396\]](#), 3.1|Scheme Component is "http" or "https", replace every back slash ('\') character with the forward slash (/) character.
- If normalization failed, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the crawl mapping for the same normalized source or target exists, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server MUST then create a new crawl mapping and append it to the mappings collection in the crawler application with the **source** property set to the normalized source, and the **target** property set to the normalized target.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **AddCrawlMappingResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.3.1 Messages

3.1.4.3.1.1

ISearchApplicationAdminWebService_AddCrawlMapping_InputMessage

The requested WSDL message for the **AddCrawlMapping** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlMapping
```

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

3.1.4.3.1.2

ISearchApplicationAdminWebService_AddCrawlMapping_OutputMessage

The response WSDL message for the **AddCrawlMapping** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlMappingResponse
```

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

3.1.4.3.2 Elements

3.1.4.3.2.1 AddCrawlMapping

The input data for the **AddCrawlMapping** WSDL operation.

```
<xs:element name="AddCrawlMapping">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="source" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="target" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

currentUser: User name of the current logged on user, used for auditing purposes.

source: The access URL prefix. This element MUST be present and its contents MUST be less than 2048 characters in length.

target: The display URL prefix. This element MUST be present and its contents MUST be less than 2048 characters in length.

3.1.4.3.2.2 AddCrawlMappingResponse

The result data for the **AddCrawlMapping** WSDL operation.

```
<xs:element name="AddCrawlMappingResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="AddCrawlMappingResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

AddCrawlMappingResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

3.1.4.4 AddCrawlRule

This operation is used to create a new crawl rule for the crawler application.

```

<wsdl:operation name="AddCrawlRule">
  <wsdl:input wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlRule"
message="tns:ISearchApplicationAdminWebService_AddCrawlRule_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlRuleResponse"
message="tns:ISearchApplicationAdminWebService_AddCrawlRule_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_AddCrawlRule_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_AddCrawlRule_OutputMessage` response message, as follows:

- The protocol server MUST normalize the **path** element of the request message the same way it normalizes the path element of the [AddAdvancedCrawlRule](#) operation request message.
- If a crawl rule with the same normalized path already exists in the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the protocol server has not thrown an exception, it MUST now create a new crawl rule with:
 - **path** property set to the normalized path
 - **isIncludeRule** property set to `isIncludeRule` from the request message
- The protocol server MUST add the created crawl rule to the end of the crawl rules collection in the crawler application.
- If the crawl rule was successfully added, the protocol server MUST return the normalized **path** property of the newly created crawl rule in the **AddCrawlRuleResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.4.1 Messages

3.1.4.4.1.1 ISearchApplicationAdminWebService_AddCrawlRule_InputMessage

The requested WSDL message for the **AddCrawlRule** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlRule
```

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

3.1.4.4.1.2 ISearchApplicationAdminWebService_AddCrawlRule_OutputMessage

The response WSDL message for the **AddCrawlRule** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlRuleResponse
```

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

3.1.4.4.2 Elements

3.1.4.4.2.1 AddCrawlRule

The input data for the **AddCrawlRule** WSDL operation.

```
<xs:element name="AddCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="isIncludeRule" type="xs:boolean"/>
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

isIncludeRule: An interpretation of the rule which MUST contain one of the values specified in the following table.

Value	Meaning
True	Inclusion rule. URLs matching the path are included in the crawl.
False	Exclusion rule. URLs matching the path are not included in the crawl.

path: A crawl rule path expression. MUST be present and the length MUST be greater than 0 and less than 2048 characters.

3.1.4.4.2.2 AddCrawlRuleResponse

The result data for the **AddCrawlRule** WSDL operation.

```
<xs:element name="AddCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="AddCrawlRuleResult" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

AddCrawlRuleResult: The normalized crawl rule path expression used by the protocol server. MUST be present and the length MUST be greater than 0 and less than 2048 characters.

3.1.4.5 AddExtension

This operation is used to add a file extension to the file extensions collection contained in the crawler application.

```
<wsdl:operation name="AddExtension">
  <wsdl:input wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddExtension"
  message="tns:ISearchApplicationAdminWebService_AddExtension_InputMessage"/>
  <wsdl:output
  wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddExtensionResponse"
  message="tns:ISearchApplicationAdminWebService_AddExtension_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_AddExtension_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_AddExtension_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- The protocol server first removes any leading or trailing **white space** characters from the **ext** element of the request message.
- The protocol server then removes the first character of the **ext** element if it is the `'.'` character.
- If the **ext** element becomes empty, contains any white space character, or contains any of the invalid characters (`','`, `'/'`, `'?'`, `'*'`, `':'`, `'\'`, `'#'`), the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the file extension specified by the **ext** element already exists in the list, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server adds the file extension specified by the **ext** element to the crawler application's list of extensions.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **AddExtensionResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.5.1 Messages

3.1.4.5.1.1 ISearchApplicationAdminWebService_AddExtension_InputMessage

The requested WSDL message for the **AddExtension** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/AddExtension
```

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

3.1.4.5.1.2 ISearchApplicationAdminWebService_AddExtension_OutputMessage

The response WSDL message for the **AddExtension** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/AddExtensionResponse
```

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

3.1.4.5.2 Elements

3.1.4.5.2.1 AddExtension

The input data for the **AddExtension** WSDL operation.

```
<xs:element name="AddExtension">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="ext" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

currentUser: User name of the current logged on user, used for auditing purposes.

ext: A file extension. MUST be present, and the length MUST be greater than 0 and less than 16 characters.

3.1.4.5.2.2 AddExtensionResponse

The result data for the **AddExtension** WSDL operation.

```
<xs:element name="AddExtensionResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="AddExtensionResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

AddExtensionResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

3.1.4.6 CatalogPauseStatus

This operation is used to retrieve the **pauseReason** property of the crawler application.

```
<wsdl:operation name="CatalogPauseStatus">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/CatalogPauseStatus"
    message="tns:ISearchApplicationAdminWebService_CatalogPauseStatus_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/CatalogPauseStatusResponse"
    message="tns:ISearchApplicationAdminWebService_CatalogPauseStatus_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_CatalogPauseStatus_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_CatalogPauseStatus_OutputMessage` response message, as follows:

- On success, the protocol server MUST return the **pauseReason** property of the crawler application, in the **CatalogPauseStatusResult** element of the response message.
- For any error, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.6.1 Messages

3.1.4.6.1.1

ISearchApplicationAdminWebService_CatalogPauseStatus_InputMessage

The requested WSDL message for the **CatalogPauseStatus** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/CatalogPauseStatus
```

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

3.1.4.6.1.2

ISearchApplicationAdminWebService_CatalogPauseStatus_OutputMessage

The response WSDL message for the **CatalogPauseStatus** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/CatalogPauseStatusResponse
```

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

3.1.4.6.2 Elements

3.1.4.6.2.1 CatalogPauseStatus

The input data for the **CatalogPauseStatus** WSDL operation.

```
<xs:element name="CatalogPauseStatus">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.6.2.2 CatalogPauseStatusResponse

The result data for the **CatalogPauseStatus** WSDL operation.

```
<xs:element name="CatalogPauseStatusResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="CatalogPauseStatusResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CatalogPauseStatusResult: The pause reasons for the crawler application. The possible value MUST be derived from the bit wise OR of one or more of the following values:

Value	Meaning
0x00000000	Not paused.
0x00000001	Reserved for internal use, not initiated by the protocol client.
0x00000002	Reserved for internal use, not initiated by the protocol client.
0x00000004	Paused because of back-up/restore.
0x00000008	Paused because of query component (2) initialization.
0x00000010	Reserved for internal use, not initiated by the protocol client.

3.1.4.7 ClearExtensionList

This operation is used to empty the list of file extensions recognized by the index server.

```
<wsdl:operation name="ClearExtensionList">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ClearExtensionList"
message="tns:ISearchApplicationAdminWebService_ClearExtensionList_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ClearExtensionListResponse"
message="tns:ISearchApplicationAdminWebService_ClearExtensionList_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_ClearExtensionList_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_ClearExtensionList_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- The protocol server clears the extension property of the crawler application.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **ClearExtensionListResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.7.1 Messages

3.1.4.7.1.1

ISearchApplicationAdminWebService_ClearExtensionList_InputMessage

The requested WSDL message for the **ClearExtensionList** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/ClearExtensionList
```

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

3.1.4.7.1.2

ISearchApplicationAdminWebService_ClearExtensionList_OutputMessage

The response WSDL message for the **ClearExtensionList** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/ClearExtensionListResponse
```

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

3.1.4.7.2 Elements

3.1.4.7.2.1 ClearExtensionList

The input data for the **ClearExtensionList** WSDL operation.

```
<xs:element name="ClearExtensionList">
  <xs:complexType>
    <xs:sequence>
```

```

    <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
</xs:element>

```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

currentUser: User name of the current logged on user, used for auditing purposes.

3.1.4.7.2.2 ClearExtensionListResponse

The result data for the **ClearExtensionList** WSDL operation.

```

<xs:element name="ClearExtensionListResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="ClearExtensionListResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

ClearExtensionListResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

3.1.4.8 EditContentSource

This operation is used to edit the content source properties in the crawler application.

```

<wsdl:operation name="EditContentSource">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/EditContentSource"
    message="tns:ISearchApplicationAdminWebService_EditContentSource_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/EditContentSourceResponse"
    message="tns:ISearchApplicationAdminWebService_EditContentSource_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_EditContentSource_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_EditContentSource_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- If the content source with the identifier specified in the `id` element in the request message does not exist, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.

- The protocol server MUST normalize each **startAddress.string** element from the request message as follows:
 - If the string is not a valid **URI** or UNC path, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
 - Convert the scheme to lowercase.
 - Convert the host name to lowercase.
 - Remove the default and empty port numbers.
 - Remove all trailing '/' characters.
 - If the string represents a local path, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
 - If the scheme is http or https, convert to a URL escaped string.
 - If the scheme is file, or if the string is a UNC path, and the character '*' is present in the string, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
 - If the scheme is file, convert the string to a UNC path, and replace every '/' character with the '\' character.
 - If the scheme is other than file, replace every '\' character with the '/' character.
- If there are any duplicate **startAddress.string** elements in the request message, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If values of any of the **startAddress.string** elements in the request message already exist as start addresses in another content source, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server updates the content source's **name**, **metadata**, **followDirectories**, **startAddress**, **fullCrawlTrigger**, **incCrawlTrigger**, and **crawlPriority** properties to the values specified in the corresponding elements in the request message, the **pageDepth** property to the value specified in the enumerationDepth element in the request message, and the **siteDepth** property to the value specified in the hostDepth element in the request message.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **EditContentSourceResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.8.1 Messages

3.1.4.8.1.1

ISearchApplicationAdminWebService_EditContentSource_InputMessage

The requested WSDL message for the **EditContentSource** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/EditContentSource
```

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

3.1.4.8.1.2

ISearchApplicationAdminWebService_EditContentSource_OutputMessage

The response WSDL message for the **EditContentSource** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/EditContentSourceResponse
```

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

3.1.4.8.2 Elements

3.1.4.8.2.1 EditContentSource

The input data for the **EditContentSource** WSDL operation.

```
<xs:element name="EditContentSource">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="id" type="xs:int"/>
      <xs:element minOccurs="0" name="name" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="metadata" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="hostDepth" type="xs:int"/>
      <xs:element minOccurs="0" name="enumerationDepth" type="xs:int"/>
      <xs:element minOccurs="0" name="followDirectories" type="xs:boolean"/>
      <xs:element minOccurs="0" name="startAddresses" nillable="true"
xmlns:q16="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
type="q16:ArrayOfstring"/>
      <xs:element minOccurs="0" name="fullCrawlTrigger" nillable="true"
type="xs:base64Binary"/>
      <xs:element minOccurs="0" name="incCrawlTrigger" nillable="true"
type="xs:base64Binary"/>
      <xs:element minOccurs="0" name="crawlPriority" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

id: The content source identifier. The identifier MUST be greater than 0.

name: The content source name. This element MUST be present. Length of the content source name MUST be greater than 0 characters, and less than or equal to 255 characters. The specified name MUST be unique among the content source names existing in the crawler application.

metadata: Arbitrary metadata associated by the protocol client with the content source. If present, the length MUST be less than 1024 characters. The value of this property is ignored by the protocol

server, but can be interpreted by the protocol client to associate arbitrary metadata with the content source collection.

hostDepth: The number of host hops allowed when crawling this content source. The value MUST be greater than or equal to 0. For unlimited host hops the number MUST be 2147483647.

enumerationDepth: The maximum number of page hops allowed when crawling this content source. The number MUST be greater than or equal to 0. For unlimited page hops the number MUST be 2147483647.

followDirectories: Determines how URLs are discovered during the crawl. If true, URLs are discovered through directory links; otherwise, URLs are discovered through links.

startAddresses: An array of zero or more start addresses. This element MUST be present. The size of the array is the number of **startAddresses.string** elements. Each **startAddresses.string** element MUST contain a single URL or UNC path of a start address, and the length MUST be less than 2048 characters.

fullCrawlTrigger: A trigger, as defined in [MS-TSCH] section 2.4.2.11, for scheduling full crawls. If this element is present, the content of the element MUST be a **base64** encoded trigger structure. Otherwise, no crawl schedule is defined.

incCrawlTrigger: A trigger, as defined in [MS-TSCH] section 2.4.2.11, for scheduling incremental crawls. If this element is present, the content of the element MUST be a base64 encoded trigger structure. Otherwise, no crawl schedule is defined.

crawlPriority: Priority of crawl processing for the content source. It MUST be one of the following values:

Value	Meaning
1	Normal
2	High

3.1.4.8.2.2 EditContentSourceResponse

The result data for the **EditContentSource** WSDL operation.

```
<xs:element name="EditContentSourceResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="EditContentSourceResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

EditContentSourceResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

3.1.4.9 GetConnectorProperty

This operation is used to retrieve a previously stored value from the **propertyBag** collection of the crawler application.

```

<wsdl:operation name="GetConnectorProperty">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetConnectorProperty"
    message="tns:ISearchApplicationAdminWebService_GetConnectorProperty_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetConnectorPropertyResponse"
    message="tns:ISearchApplicationAdminWebService_GetConnectorProperty_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_GetConnectorProperty_InputMessage` request message and the server responds with an `ISearchApplicationAdminWebService_GetConnectorProperty_OutputMessage` response message, as follows:

- If the name element in the request message is null or empty, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If there is no name/value pair with the same name in the **propertyBag** collection of the crawler application as the name element in the request message, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server MUST return value corresponding to the requested name in the **GetConnectorPropertyResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.9.1 Messages

3.1.4.9.1.1

ISearchApplicationAdminWebService_GetConnectorProperty_InputMessage

The requested WSDL message for the **GetConnectorProperty** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetConnectorProperty
```

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

3.1.4.9.1.2

ISearchApplicationAdminWebService_GetConnectorProperty_OutputMessage

The response WSDL message for the **GetConnectorProperty** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetConnectorPropertyResponse
```

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

3.1.4.9.2 Elements

3.1.4.9.2.1 GetConnectorProperty

The input data for the **GetConnectorProperty** WSDL operation.

```
<xs:element name="GetConnectorProperty">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="name" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

name: The name for which to retrieve the corresponding value. MUST be less than or equal to 16369 characters.

3.1.4.9.2.2 GetConnectorPropertyResponse

The result data for the **GetConnectorProperty** WSDL operation.

```
<xs:element name="GetConnectorPropertyResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetConnectorPropertyResult" nillable="true"
type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetConnectorPropertyResult: String value corresponding to the name element of the request message

3.1.4.10 GetContentSources

This operation is used to get information about all the content sources for the specified project of the crawler application.

```
<wsdl:operation name="GetContentSources">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetContentSources"
message="tns:ISearchApplicationAdminWebService_GetContentSources_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetContentSourcesResponse"
message="tns:ISearchApplicationAdminWebService_GetContentSources_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_GetContentSources_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_GetContentSources_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server MUST obtain the properties of every content source in the crawler application.
- If the properties were successfully returned, the protocol server MUST return the properties of all content sources the **GetContentSourcesResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.10.1 Messages

3.1.4.10.1.1

ISearchApplicationAdminWebService_GetContentSources_InputMessage

The requested WSDL message for the **GetContentSources** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetContentSources
```

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

3.1.4.10.1.2

ISearchApplicationAdminWebService_GetContentSources_OutputMessage

The response WSDL message for the **GetContentSources** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetContentSourcesResponse
```

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

3.1.4.10.2 Elements

3.1.4.10.2.1 GetContentSources

The input data for the **GetContentSources** WSDL operation.

```
<xs:element name="GetContentSources">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

3.1.4.10.2.2 GetContentSourcesResponse

The result data for the **GetContentSources** WSDL operation.

```
<xs:element name="GetContentSourcesResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetContentSourcesResult"
        xmlns:q8="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q8:ContentSourcesInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetContentSourcesResult: All content sources for the crawler application.

3.1.4.10.3 Complex Types

3.1.4.10.3.1 ContentSourcesInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The definition of the **ContentSourcesInternal** complex type is as follows:

```
<xs:complexType name="ContentSourcesInternal">
  <xs:annotation>
    <xs:appinfo>
      <IsValueType
        xmlns="http://schemas.microsoft.com/2003/10/Serialization/">true</IsValueType>
    </xs:appinfo>
  </xs:annotation>
  <xs:sequence>
    <xs:element minOccurs="0" name="contentSourcesInternal" nillable="true"
      type="tns:ArrayOfContentSourceInternal"/>
    <xs:element minOccurs="0" name="metadata" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

contentSourcesInternal: This element MUST be present and MUST contain all content sources in the crawler application.

metadata: This element MUST be present and MUST be empty or contain arbitrary custom metadata that the protocol client associated with the project. If this element is not empty, the length of the content MUST be less than or equal to 1024 characters.

3.1.4.10.3.2 ArrayOfContentSourceInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The **ArrayOfContentSourceInternal** complex type represents an array of elements of a size equal to the number of content sources present in the crawler application. Each element must contain the properties for a content source.

The definition of the **ArrayOfContentSourceInternal** complex type is as follows:

```

<xs:complexType name="ArrayOfContentSourceInternal">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="ContentSourceInternal"
nillable="true" type="tns:ContentSourceInternal"/>
  </xs:sequence>
</xs:complexType>

```

ContentSourceInternal: This element MUST NOT be null, and MUST contain a single content source's properties, according to the ContentSourceInternal complex type.

3.1.4.10.3.3 ContentSourceInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The **ContentSourceInternal** type represents the properties and status information for a content source.

```

<xs:complexType name="ContentSourceInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="crawlPriority" type="xs:int"/>
    <xs:element minOccurs="0" name="dynamic" nillable="true"
type="tns:ContentSourceDynamicPropsInternal"/>
    <xs:element minOccurs="0" name="followDirectories" type="xs:boolean"/>
    <xs:element minOccurs="0" name="fullCrawlTrigger" nillable="true"
type="xs:base64Binary"/>
    <xs:element minOccurs="0" name="fullScheduleDescription" nillable="true"
type="xs:string"/>
    <xs:element minOccurs="0" name="id" type="xs:int"/>
    <xs:element minOccurs="0" name="incCrawlTrigger" nillable="true" type="xs:base64Binary"/>
    <xs:element minOccurs="0" name="incScheduleDescription" nillable="true"
type="xs:string"/>
    <xs:element minOccurs="0" name="metadata" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="name" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="nextFullCrawlStart" type="xs:dateTime"/>
    <xs:element minOccurs="0" name="nextIncCrawlStart" type="xs:dateTime"/>
    <xs:element minOccurs="0" name="pageDepth" type="xs:int"/>
    <xs:element minOccurs="0" name="siteDepth" type="xs:int"/>
    <xs:element minOccurs="0" name="startAddresses" nillable="true"
xmlns:q1="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
type="q1:ArrayOfstring"/>
    <xs:element minOccurs="0" name="systemCreated" type="xs:boolean"/>
    <xs:element minOccurs="0" name="type" type="xs:int"/>
    <xs:element minOccurs="0" name="wssCrawlStyle"
xmlns:q2="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Administrati
on" type="q2:SharePointCrawlBehavior"/>
  </xs:sequence>
</xs:complexType>

```

crawlPriority: Priority of crawl processing for the content source. It MUST be one of the following values:

Value	Meaning
1	Normal
2	High

dynamic: This element MUST be present and MUST contain the content source status information specified in section [2.2.4.1](#).

followDirectories: Specifies how items are discovered by the crawler during the crawl. It MUST be one of the following values:

Value	Meaning
true	Items are discovered through directory links.
False	Items are discovered through hyperlinks.

fullCrawlTrigger: If this element is present, it MUST contain a base64 encoded trigger, as defined in [\[MS-TSCH\]](#) section 2.4.2.11, for the full crawl schedule. If this element is not present, the trigger is not defined.

fullScheduleDescription: The text description for a full crawl schedule. If the **fullCrawlTrigger** element is present, this element MUST also be present. If the **fullCrawlTrigger** element is not present, this element MUST NOT be present.

id: The content source identifier. The identifier MUST be greater than zero.

incCrawlTrigger: If this element is present, it MUST contain a base64 encoded trigger, as defined in [\[MS-TSCH\]](#) section 2.4.2.11, for the incremental crawl schedule. If this element is not present, the trigger is not defined.

incScheduleDescription: The text description for an incremental crawl schedule. If the **incCrawlTrigger** element is present, this element MUST also be present. If the **incCrawlTrigger** element is not present, this element MUST NOT be present.

metadata: An arbitrary custom string that the protocol client associated with the content source. If present, the length MUST be less than 1024 characters. The utilization of the metadata string depends on the protocol client implementation details.

name: The content source name. The length of the name MUST be greater than zero characters and less than or equal to 255 characters.

nextFullCrawlStart: The start time of the next scheduled full crawl. If there is no full crawl scheduled, this element MUST contain the value "9999-12-31T23:59:59.9999999".

nextIncCrawlStart: The start time of the next scheduled incremental crawl. If there is no incremental crawl scheduled, this element MUST contain the value "9999-12-31T23:59:59.9999999".

pageDepth: The maximum number of **page hops** allowed when this content source is crawled. The number MUST be greater than or equal to zero. If there is no limit, the number MUST be set to "2147483647".

siteDepth: The maximum number of **host hops** allowed when this content source is crawled. The number MUST be greater than or equal to zero. If there is no limit, the number MUST be set to "2147483647".

startAddresses: An array of zero or more start addresses. This element MUST be present. The size of the array is the number of **startAddresses.string** elements. Each **startAddresses.string** element MUST contain a single URL or UNC path of a start address, and the length MUST be less than 2048 characters.

systemCreated: Specifies whether the content source was created automatically by the system or if the protocol client created it using this protocol. It MUST be one of the following values:

Value	Meaning
True	The content source was automatically created after server installation.
False	The content source was created by the protocol client using this protocol.

type: The content source type MUST be one of the following values:

Value	Meaning
0	Enables specifying settings that control the depth of a crawl for a web site based on the start address server, host hops, and page depth.
1	Enables specifying settings that control the depth of a crawl for a web site based on discovering everything under the hostname for each start address or only crawling the site collection of each start address.
2	Lotus Notes database.
3	File shares.
4	Exchange public folders.
5	Custom.
6	Legacy<4> Business Data Catalog.
8	Custom content connector.
9	Business Data Connectivity (BDC).

wssCrawlStyle: The type of the crawl performed while crawling sites. This element MUST be present and MUST conform to the schema of the **SharePointCrawlBehavior** simple type.

3.1.4.11 GetContentState

This operation is used to retrieve the states and various properties of the crawler application.

```
<wsdl:operation name="GetContentState">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetContentState"
    message="tns:ISearchApplicationAdminWebService_GetContentState_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetContentStateResponse"
    message="tns:ISearchApplicationAdminWebService_GetContentState_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_GetContentState_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_GetContentState_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- On success, the protocol server MUST return the states and various properties of the crawler application and the crawler application in the **GetContentStateResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.11.1 Messages

3.1.4.11.1.1

ISearchApplicationAdminWebService_GetContentState_InputMessage

The requested WSDL message for the **GetContentState** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetContentState
```

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

3.1.4.11.1.2

ISearchApplicationAdminWebService_GetContentState_OutputMessage

The response WSDL message for the **GetContentState** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetContentStateResponse
```

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

3.1.4.11.2 Elements

3.1.4.11.2.1 GetContentState

The input data for the **GetContentState** WSDL operation.

```
<xs:element name="GetContentState">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

3.1.4.11.2.2 GetContentStateResponse

The result data for the **GetContentState** WSDL operation.

```
<xs:element name="GetContentStateResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetContentStateResult" nillable="true"
        xmlns:q12="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q12:ContentStateInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetContentStateResult: Properties of the crawler application. This element **MUST** be present and **MUST** conform to the schema of the **ContentStateInternal** complex type.

3.1.4.11.3 Complex Types

3.1.4.11.3.1 ContentStateInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The definition of the **ContentStateInternal** type is as follows:

```
<xs:complexType name="ContentStateInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="activeDocuments" nillable="true"
      xmlns:q3="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
      type="q3:ArrayOfstring"/>
    <xs:element minOccurs="0" name="anchorContentSourceId" type="xs:int"/>
    <xs:element minOccurs="0" name="clientCertificateNames" nillable="true"
      xmlns:q4="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
      type="q4:ArrayOfstring"/>
    <xs:element minOccurs="0" name="defaultGatheringAccount" nillable="true"
      type="xs:string"/>
    <xs:element minOccurs="0" name="listKnownLotusNotesServers" nillable="true"
      xmlns:q5="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
      type="q5:ArrayOfstring"/>
    <xs:element minOccurs="0" name="lotusNotesConfigured" type="xs:boolean"/>
    <xs:element minOccurs="0" name="retryLimit" type="xs:int"/>
  </xs:sequence>
</xs:complexType>
```

activeDocuments: The **activeDocuments** property of the crawler application. This element **MUST** be present and **MUST** conform to the schema of the **ArrayOfString** complex type as specified in section [2.2.4.3](#).

anchorContentSourceId:

clientCertificateNames: The **clientCertificateNames** property of the crawler application. This element **MUST** be present and **MUST** conform to the schema of the **ArrayOfString** complex type as specified in section [2.2.4.3](#).

defaultGatheringAccount: The **defaultCrawlingAccount** property of the crawler application. This element **MUST** be present.

listKnownLotusNotesServers: The **listKnownLotusNotesServers** property of the crawler application. If the **lotusNotesConfigured** property of the crawler application is true, this element MUST be present and MUST conform to the schema of the **ArrayOfString** complex type as specified in section [2.2.4.3](#).

lotusNotesConfigured: The **lotusNotesConfigured** property of the crawler application.

retryLimit: The **retryLimit** property of the crawler application.

3.1.4.12 GetCrawlMappings

This operation is used to retrieve all crawl mappings existing in the crawler application.

```
<wsdl:operation name="GetCrawlMappings">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlMappings"
    message="tns:ISearchApplicationAdminWebService_GetCrawlMappings_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlMappingsResponse"
    message="tns:ISearchApplicationAdminWebService_GetCrawlMappings_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an **ISearchApplicationAdminWebService_GetCrawlMappings_InputMessage** request message and the protocol server responds with an **ISearchApplicationAdminWebService_GetCrawlMappings_OutputMessage** response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- On success, the protocol server MUST return all crawl mappings existing in the crawler application in the **GetCrawlMappingsResult** element of the response message
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.12.1 Messages

3.1.4.12.1.1

ISearchApplicationAdminWebService_GetCrawlMappings_InputMessage

The requested WSDL message for the **GetCrawlMappings** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlMappings
```

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

3.1.4.12.1.2

ISearchApplicationAdminWebService_GetCrawlMappings_OutputMessage

The response WSDL message for the **GetCrawlMappings** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlMappingsResponse
```

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

3.1.4.12.2 Elements

3.1.4.12.2.1 GetCrawlMappings

The input data for the **GetCrawlMappings** WSDL operation.

```
<xs:element name="GetCrawlMappings">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

3.1.4.12.2.2 GetCrawlMappingsResponse

The result data for the **GetCrawlMappings** WSDL operation.

```
<xs:element name="GetCrawlMappingsResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetCrawlMappingsResult" nillable="true"
xmlns:q10="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q10:ArrayOfCrawlMappingInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetCrawlMappingsResult: An array of crawl mappings. This element **MUST** be present.

3.1.4.12.3 Complex Types

3.1.4.12.3.1 ArrayOfCrawlMappingInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The following XML Schema complex type definitions are specific to this operation.

```
<xs:complexType name="ArrayOfCrawlMappingInternal">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="CrawlMappingInternal"
nillable="true" type="tns:CrawlMappingInternal"/>
  </xs:sequence>
```

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

CrawlMappingInternal: A single crawl mapping. This element MUST NOT be null.

3.1.4.12.3.2 CrawlMappingInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The **ArrayOfCrawlMappingInternal** complex type represents an array of zero or more elements, each containing a single crawl mapping. Each crawl mapping MUST be presented once.

```
<xs:complexType name="CrawlMappingInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="source" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="target" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

source: An access URL prefix. This element MUST be present and its content MUST be less than 2048 characters in length.

target: A display URL prefix. This element MUST be present and its content MUST be less than 2048 characters in length.

3.1.4.13 GetCrawlRuleList

This operation is used to retrieve the crawler application's list of crawl rules.

```
<wsdl:operation name="GetCrawlRuleList">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleList"
    message="tns:ISearchApplicationAdminWebService_GetCrawlRuleList_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleListResponse"
    message="tns:ISearchApplicationAdminWebService_GetCrawlRuleList_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_GetCrawlRuleList_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_GetCrawlRuleList_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the operation succeeds, the protocol server MUST return all crawl rules in the **GetCrawlRuleListResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.13.1 Messages

3.1.4.13.1.1

ISearchApplicationAdminWebService_GetCrawlRuleList_InputMessage

The requested WSDL message for the **GetCrawlRuleList** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleList
```

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

3.1.4.13.1.2

ISearchApplicationAdminWebService_GetCrawlRuleList_OutputMessage

The response WSDL message for the **GetCrawlRuleList** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleListResponse
```

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

3.1.4.13.2 Elements

3.1.4.13.2.1 GetCrawlRuleList

The input data for the **GetCrawlRuleList** WSDL operation.

```
<xs:element name="GetCrawlRuleList">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.13.2.2 GetCrawlRuleListResponse

The result data for the **GetCrawlRuleList** WSDL operation.

```
<xs:element name="GetCrawlRuleListResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetCrawlRuleListResult" nillable="true"
        xmlns:q5="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q5:ArrayOfCrawlRuleInternal"/>
    </xs:sequence>
  </xs:complexType>
```

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

GetCrawlRuleListResult: The list of crawl rules. MUST be present.

3.1.4.13.3 Complex Types

3.1.4.13.3.1 ArrayOfCrawlRuleInternal (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

This complex type represents an ordered list of crawl rules with the ordering of the **CrawlRuleInternal** elements the same as the ordering of the crawl rules in the crawler application.

```
<xs:complexType name="ArrayOfCrawlRuleInternal">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="CrawlRuleInternal" nillable="true"
      type="tns:CrawlRuleInternal"/>
  </xs:sequence>
</xs:complexType>
```

CrawlRuleInternal: The properties of a crawl rule. This element MUST NOT be null.

3.1.4.14 GetExtensionList

This operation is used to retrieve the crawler application's list of file extensions.

```
<wsdl:operation name="GetExtensionList">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetExtensionList"
    message="tns:ISearchApplicationAdminWebService_GetExtensionList_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetExtensionListResponse"
    message="tns:ISearchApplicationAdminWebService_GetExtensionList_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_GetExtensionList_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_GetExtensionList_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server returns all file extensions from the crawler application's extension list in the **GetExtensionListResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.14.1 Messages

3.1.4.14.1.1

ISearchApplicationAdminWebService_GetExtensionList_InputMessage

The requested WSDL message for the **GetExtensionList** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetExtensionList
```

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

3.1.4.14.1.2

ISearchApplicationAdminWebService_GetExtensionList_OutputMessage

The response WSDL message for the **GetExtensionList** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetExtensionListResponse
```

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

3.1.4.14.2 Elements

3.1.4.14.2.1 **GetExtensionList**

The input data for the **GetExtensionList** WSDL operation.

```
<xs:element name="GetExtensionList">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to 0.

3.1.4.14.2.2 **GetExtensionListResponse**

The result data for the **GetExtensionList** WSDL operation.

```
<xs:element name="GetExtensionListResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetExtensionListResult" nillable="true"
        xmlns:q4="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
        type="q4:ArrayOfstring"/>
    </xs:sequence>
  </xs:complexType>
```

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

GetExtensionListResult: array of file extensions that the protocol server returns to the protocol client. This element MUST be present. Each **GetExtensionListResult.string** element MUST NOT be null and MUST contain one file extension.

3.1.4.15 GetVersion

This operation is used to retrieve the configuration version of the crawler application.

```
<wsdl:operation name="GetVersion">
  <wsdl:input wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetVersion"
    message="tns:ISearchApplicationAdminWebService_GetVersion_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetVersionResponse"
    message="tns:ISearchApplicationAdminWebService_GetVersion_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_GetVersion_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_GetVersion_OutputMessage` response message, as follows:

- On success, the protocol server MUST return the configuration version property of the crawler application in the **GetVersionResult** element in the response message.
- For any error, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.15.1 Messages

3.1.4.15.1.1 ISearchApplicationAdminWebService_GetVersion_InputMessage

The requested WSDL message for the **GetVersion** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetVersion
```

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

3.1.4.15.1.2 ISearchApplicationAdminWebService_GetVersion_OutputMessage

The response WSDL message for the **GetVersion** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/GetVersionResponse
```

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

3.1.4.15.2 Elements

3.1.4.15.2.1 GetVersion

The input data for the **GetVersion** WSDL operation.

```
<xs:element name="GetVersion">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

3.1.4.15.2.2 GetVersionResponse

The result data for the **GetVersion** WSDL operation.

```
<xs:element name="GetVersionResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="GetVersionResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

GetVersionResult: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to 0.

3.1.4.16 IncreaseRegistryVersion

This operation is used increase the registry version of the crawler application by one.

```
<wsdl:operation name="IncreaseRegistryVersion">
  <wsdl:input
  wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IncreaseRegistryVersion"
  message="tns:ISearchApplicationAdminWebService_IncreaseRegistryVersion_InputMessage"/>
  <wsdl:output
  wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IncreaseRegistryVersionResponse"
  message="tns:ISearchApplicationAdminWebService_IncreaseRegistryVersion_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_IncreaseRegistryVersion_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_IncreaseRegistryVersion_OutputMessage` response message, as follows:

- The protocol server **MUST** increase the **registryVersion** of the crawler application by one.
- For any error, the protocol server **MUST** send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.16.1 Messages

3.1.4.16.1.1

ISearchApplicationAdminWebService_IncreaseRegistryVersion_InputMessage

The requested WSDL message for the **IncreaseRegistryVersion** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IncreaseRegistryVersion
```

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

3.1.4.16.1.2

ISearchApplicationAdminWebService_IncreaseRegistryVersion_OutputMessage

The response WSDL message for the **IncreaseRegistryVersion** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IncreaseRegistryVersionResponse
```

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

3.1.4.16.2 Elements

3.1.4.16.2.1 IncreaseRegistryVersion

The input data for the **IncreaseRegistryVersion** WSDL operation.

```
<xs:element name="IncreaseRegistryVersion">  
  <xs:complexType>  
    <xs:sequence/>  
  </xs:complexType>  
</xs:element>
```

3.1.4.16.2.2 IncreaseRegistryVersionResponse

The result data for the **IncreaseRegistryVersion** WSDL operation.

```
<xs:element name="IncreaseRegistryVersionResponse">  
  <xs:complexType>  
    <xs:sequence/>  
  </xs:complexType>  
</xs:element>
```

3.1.4.17 IncrementVersion

This operation is used to increase the configuration version of the crawler application by one.

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



```

    <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IncrementVersion"
message="tns:ISearchApplicationAdminWebService_IncrementVersion_InputMessage"/>
    <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IncrementVersionResponse"
message="tns:ISearchApplicationAdminWebService_IncrementVersion_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_IncrementVersion_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_IncrementVersion_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **IncrementVersionResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.17.1 Messages

3.1.4.17.1.1

ISearchApplicationAdminWebService_IncrementVersion_InputMessage

The requested WSDL message for the **IncrementVersion** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IncrementVersion
```

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

3.1.4.17.1.2

ISearchApplicationAdminWebService_IncrementVersion_OutputMessage

The response WSDL message for the **IncrementVersion** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IncrementVersionResponse
```

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

3.1.4.17.2 Elements

3.1.4.17.2.1 IncrementVersion

The input data for the **IncrementVersion** WSDL operation.

```
<xs:element name="IncrementVersion">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to 0.

3.1.4.17.2.2 IncrementVersionResponse

The result data for the **IncrementVersion** WSDL operation.

```
<xs:element name="IncrementVersionResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="IncrementVersionResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

IncrementVersionResult: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to 0.

3.1.4.18 IsAnchorCrawlIdle

This operation is used to check if an anchor crawl in the crawler application is in progress.

```
<wsdl:operation name="IsAnchorCrawlIdle">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsAnchorCrawlIdle"
    message="tns:ISearchApplicationAdminWebService_IsAnchorCrawlIdle_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsAnchorCrawlIdleResponse"
    message="tns:ISearchApplicationAdminWebService_IsAnchorCrawlIdle_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_IsAnchorCrawlIdle_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_IsAnchorCrawlIdle_OutputMessage` response message, as follows:

- On success, the protocol server **MUST** return whether an anchor crawl is in progress in the **IsAnchorCrawlIdleResult** element of the response message.

- For any error, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.18.1 Messages

3.1.4.18.1.1

ISearchApplicationAdminWebService_IsAnchorCrawlIdle_InputMessage

The requested WSDL message for the **IsAnchorCrawlIdle** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IsAnchorCrawlIdle
```

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

3.1.4.18.1.2

ISearchApplicationAdminWebService_IsAnchorCrawlIdle_OutputMessage

The response WSDL message for the **IsAnchorCrawlIdle** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IsAnchorCrawlIdleResponse
```

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

3.1.4.18.2 Elements

3.1.4.18.2.1 IsAnchorCrawlIdle

The input data for the **IsAnchorCrawlIdle** WSDL operation.

```
<xs:element name="IsAnchorCrawlIdle">  
  <xs:complexType>  
    <xs:sequence/>  
  </xs:complexType>  
</xs:element>
```

3.1.4.18.2.2 IsAnchorCrawlIdleResponse

The result data for the **IsAnchorCrawlIdle** WSDL operation.

```
<xs:element name="IsAnchorCrawlIdleResponse">  
  <xs:complexType>  
    <xs:sequence>  
      <xs:element minOccurs="0" name="IsAnchorCrawlIdleResult" type="xs:boolean"/>  
    </xs:sequence>  
  </xs:complexType>  
</xs:element>
```

IsAnchorCrawlIdleResult: A flag that specifies whether an anchor crawl is in progress. MUST be present and MUST be one of the following values:

Value	Meaning
false	An anchor crawl is in progress.
true	An anchor crawl is not in progress.

3.1.4.19 IsCaseSensitiveURL

This operation is used to check if the crawler application treats the specified URL in a case sensitive manner.

```
<wsdl:operation name="IsCaseSensitiveURL">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsCaseSensitiveURL"
    message="tns:ISearchApplicationAdminWebService_IsCaseSensitiveURL_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsCaseSensitiveURLResponse"
    message="tns:ISearchApplicationAdminWebService_IsCaseSensitiveURL_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_IsCaseSensitiveURL_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_IsCaseSensitiveURL_OutputMessage` response message, as follows:

- On success, the protocol server returns, in the **IsCaseSensitiveURLResult** element of the response message, the flag that specifies whether the URL, specified in the **strURL** element of the request message, is treated in a case sensitive manner or not.
- For any error, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.19.1 Messages

3.1.4.19.1.1

ISearchApplicationAdminWebService_IsCaseSensitiveURL_InputMessage

The requested WSDL message for the **IsCaseSensitiveURL** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IsCaseSensitiveURL
```

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

3.1.4.19.1.2

ISearchApplicationAdminWebService_IsCaseSensitiveURL_OutputMessage

The response WSDL message for the **IsCaseSensitiveURL** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IsCaseSensitiveURLResponse
```

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

3.1.4.19.2 Elements

3.1.4.19.2.1 IsCaseSensitiveURL

The input data for the **IsCaseSensitiveURL** WSDL operation.

```
<xs:element name="IsCaseSensitiveURL">  
  <xs:complexType>  
    <xs:sequence>  
      <xs:element minOccurs="0" name="strURL" nillable="true" type="xs:string"/>  
    </xs:sequence>  
  </xs:complexType>  
</xs:element>
```

strURL: A single URL or UNC path. MUST be present.

3.1.4.19.2.2 IsCaseSensitiveURLResponse

The result data for the **IsCaseSensitiveURL** WSDL operation.

```
<xs:element name="IsCaseSensitiveURLResponse">  
  <xs:complexType>  
    <xs:sequence>  
      <xs:element minOccurs="0" name="IsCaseSensitiveURLResult" type="xs:boolean"/>  
    </xs:sequence>  
  </xs:complexType>  
</xs:element>
```

IsCaseSensitiveURLResult: A flag that specifies whether the crawler application treats strURL in a case sensitive manner. MUST be present and MUST be one of the following values:

Value	Meaning
false	Case insensitive manner.
true	Case sensitive manner.

3.1.4.20 IsCatalogPauseCompleted

This operation is used to check if the action of pausing all crawls on the crawler application for the specified reason has been completed.

```
<wsdl:operation name="IsCatalogPauseCompleted">  
  <wsdl:input>  
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsCatalogPauseCompleted"  
    message="tns:ISearchApplicationAdminWebService_IsCatalogPauseCompleted_InputMessage"/>
```

```
<wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsCatalogPauseCompletedResponse" message="tns:ISearchApplicationAdminWebService_IsCatalogPauseCompleted_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an **ISearchApplicationAdminWebService_IsCatalogPauseCompleted_InputMessage** request message and the protocol server responds with an **ISearchApplicationAdminWebService_IsCatalogPauseCompleted_OutputMessage** response message, as follows:

- If the value of the crawl pause reason is successfully retrieved, the protocol server MUST return "true" if the **pauseReason** property on the crawler application contains the pause reason specified in the request message. Otherwise, the protocol server MUST return "false".
- For any error, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.20.1 Messages

3.1.4.20.1.1

ISearchApplicationAdminWebService_IsCatalogPauseCompleted_InputMessage

The requested WSDL message for the **IsCatalogPauseCompleted** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IsCatalogPauseCompleted
```

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

3.1.4.20.1.2

ISearchApplicationAdminWebService_IsCatalogPauseCompleted_OutputMessage

The response WSDL message for the **IsCatalogPauseCompleted** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IsCatalogPauseCompletedResponse
```

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

3.1.4.20.2 Elements

3.1.4.20.2.1 IsCatalogPauseCompleted

The input data for the **IsCatalogPauseCompleted** WSDL operation.

```
<xs:element name="IsCatalogPauseCompleted">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="reason" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

```

    </xs:sequence>
  </xs:complexType>
</xs:element>

```

reason: The reason for pausing crawls. MUST be one of the following values:

Value	Meaning
1	Reserved for internal use, not initiated by the protocol client.
2	Reserved for internal use, not initiated by the protocol client.
4	Pause crawl because of back-up/restore process.
8	Pause crawl because of query component initialization.
12	Pause crawl because of both back-up/restore process and query component initialization.
16	Reserved for internal use, not initiated by the protocol client.

3.1.4.20.2.2 IsCatalogPauseCompletedResponse

The result data for the **IsCatalogPauseCompleted** WSDL operation.

```

<xs:element name="IsCatalogPauseCompletedResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="IsCatalogPauseCompletedResult" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

IsCatalogPauseCompletedResult: If true, indicates the operation to pause all crawls for the given reason has been completed; otherwise false.

3.1.4.21 IsDeleteCrawlInProgress

This operation is used to check if a delete crawl in the crawler application is in progress.

```

<wsdl:operation name="IsDeleteCrawlInProgress">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsDeleteCrawlInProgress"
message="tns:ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsDeleteCrawlInProgressResponse"
message="tns:ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- On success, the protocol server MUST return whether a delete crawl is in progress in the **IsDeleteCrawlInProgressResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.21.1 Messages

3.1.4.21.1.1

ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_InputMessage

The requested WSDL message for the **IsDeleteCrawlInProgress** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IsDeleteCrawlInProgress
```

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

3.1.4.21.1.2

ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_OutputMessage

The response WSDL message for the **IsDeleteCrawlInProgress** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/IsDeleteCrawlInProgressResponse
```

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

3.1.4.21.2 Elements

3.1.4.21.2.1 IsDeleteCrawlInProgress

The input data for the **IsDeleteCrawlInProgress** WSDL operation.

```
<xs:element name="IsDeleteCrawlInProgress">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.21.2.2 IsDeleteCrawlInProgressResponse

The result data for the **IsDeleteCrawlInProgress** WSDL operation.

```
<xs:element name="IsDeleteCrawlInProgressResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="IsDeleteCrawlInProgressResult" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

IsDeleteCrawlInProgressResult: If true, indicates that a delete crawl is in progress, otherwise false.

3.1.4.22 IsExtensionIncludeList

This operation is used to determine whether the file extensions list in the crawler application is an inclusion list or an exclusion list.

```
<wsdl:operation name="IsExtensionIncludeList">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsExtensionIncludeList"
    message="tns:ISearchApplicationAdminWebService_IsExtensionIncludeList_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsExtensionIncludeListResponse"
    message="tns:ISearchApplicationAdminWebService_IsExtensionIncludeList_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_IsExtensionIncludeList_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_IsExtensionIncludeList_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server returns the **IsExtensionIncludeListResult** property of the crawler application in the **IsExtensionIncludeListResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.22.1 Messages

3.1.4.22.1.1

ISearchApplicationAdminWebService_IsExtensionIncludeList_InputMessage

The requested WSDL message for the **IsExtensionIncludeList** WSDL operation.

The SOAP action value is:

<http://tempuri.org/ISearchApplicationAdminWebService/IsExtensionIncludeList>

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

3.1.4.22.1.2

ISearchApplicationAdminWebService_IsExtensionIncludeList_OutputMessage

The response WSDL message for the **IsExtensionIncludeList** method.

The SOAP action value is:

<http://tempuri.org/ISearchApplicationAdminWebService/IsExtensionIncludeListResponse>

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

3.1.4.22.2 Elements

3.1.4.22.2.1 IsExtensionIncludeList

The input data for the **IsExtensionIncludeList** WSDL operation.

```
<xs:element name="IsExtensionIncludeList">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.22.2.2 IsExtensionIncludeListResponse

The result data for the **IsExtensionIncludeList** WSDL operation.

```
<xs:element name="IsExtensionIncludeListResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="IsExtensionIncludeListResult" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

IsExtensionIncludeListResult: type of the file extensions list. If true, the file extensions list is an inclusion list, otherwise, the file extensions list is an exclusion list.

3.1.4.23 ListKnownLotusNotesDatabases

This operation is used to retrieve a list of known Lotus Notes database names for a given Lotus Notes server name.

```

<wsdl:operation name="ListKnownLotusNotesDatabases">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ListKnownLotusNotesDatabases"
    message="tns:ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ListKnownLotusNotesDatabasesResponse"
    message="tns:ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_OutputMessage` response message, as follows:

- If the **lotusNotesConfigured** property of the crawler application is not true, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- On success, the protocol server returns, in the **ListKnownLotusNotesDatabasesResult** element the response message, the known Lotus Notes database names for the Lotus Notes server name specified in the `serverName` element of the request message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.23.1 Messages

3.1.4.23.1.1

ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_InputMessage

The requested WSDL message for the **ListKnownLotusNotesDatabases** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/ListKnownLotusNotesDatabases
```

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

3.1.4.23.1.2

ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_OutputMessage

The response WSDL message for the **ListKnownLotusNotesDatabases** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/ListKnownLotusNotesDatabasesResponse
```

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

3.1.4.23.2 Elements

3.1.4.23.2.1 ListKnownLotusNotesDatabases

The input data for the **ListKnownLotusNotesDatabases** WSDL operation.

```
<xs:element name="ListKnownLotusNotesDatabases">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="serverName" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

serverName: Lotus Notes server name for which the Lotus Notes database names MUST be retrieved. This element MUST be present and MUST NOT be empty.

3.1.4.23.2.2 ListKnownLotusNotesDatabasesResponse

The result data for the **ListKnownLotusNotesDatabases** WSDL operation.

```
<xs:element name="ListKnownLotusNotesDatabasesResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="ListKnownLotusNotesDatabasesResult" nillable="true"
        xmlns:q11="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
        type="q11:ArrayOfstring"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

ListKnownLotusNotesDatabasesResult: A list of Lotus Notes database names. This element MUST be present and MUST conform to the schema of **ArrayOfString** complex type as specified in section [2.2.4.3](#).

3.1.4.24 PauseCrawl

This operation is used to pause a crawl of a content source of the crawler application.

```
<wsdl:operation name="PauseCrawl">
  <wsdl:input wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/PauseCrawl"
    message="tns:ISearchApplicationAdminWebService_PauseCrawl_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/PauseCrawlResponse"
    message="tns:ISearchApplicationAdminWebService_PauseCrawl_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_PauseCrawl_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_PauseCrawl_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.

- If there is no content source with the content source identifier specified by the **contentSource** element of the request message, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server attempts to pause the crawl for the content source with the identifier specified in the **contentSource** element of the request message.
- If the crawl is in a state where it cannot be paused or is already paused, the protocol server MUST ignore the pause request and return the current crawl status in the **PauseCrawlResult** element the response message.
- On success, the protocol server MUST return the current crawl status in the **PauseCrawlResult** element the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.24.1 Messages

3.1.4.24.1.1 ISearchApplicationAdminWebService_PauseCrawl_InputMessage

The requested WSDL message for the **PauseCrawl** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/PauseCrawl
```

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

3.1.4.24.1.2 ISearchApplicationAdminWebService_PauseCrawl_OutputMessage

The response WSDL message for the **PauseCrawl** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/PauseCrawlResponse
```

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

3.1.4.24.2 Elements

3.1.4.24.2.1 PauseCrawl

The input data for the **PauseCrawl** WSDL operation.

```
<xs:element name="PauseCrawl">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="contentSource" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
```

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

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

currentUser: User name of the current logged on user, used for auditing purposes.

contentSource: The identifier of the content source to pause the crawl for.

3.1.4.24.2.2 PauseCrawlResponse

The result data for the **PauseCrawl** WSDL operation.

```
<xs:element name="PauseCrawlResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="PauseCrawlResult" nillable="true"
        xmlns:q19="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q19:ContentSourceDynamicPropsInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

PauseCrawlResult: The status of the most recent crawl. This element MUST be present and MUST conform to the schema of the **ContentSourceDynamicPropsInternal** complex type as specified in section [2.2.4.1](#).

3.1.4.25 RefreshAnchorContentSource

This operation is used to retrieve the current status of the anchor content source of the crawler application.

```
<wsdl:operation name="RefreshAnchorContentSource">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RefreshAnchorContentSource"
    message="tns:ISearchApplicationAdminWebService_RefreshAnchorContentSource_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RefreshAnchorContentSourceResponse"
    message="tns:ISearchApplicationAdminWebService_RefreshAnchorContentSource_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an **ISearchApplicationAdminWebService_RefreshAnchorContentSource_InputMessage** request message and the protocol server responds with an **ISearchApplicationAdminWebService_RefreshAnchorContentSource_OutputMessage** response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- On success, the protocol server returns the current anchor content source status in the **RefreshAnchorContentSourceResult** element of the response message.

- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.25.1 Messages

3.1.4.25.1.1

ISearchApplicationAdminWebService_RefreshAnchorContentSource_InputMessage

The requested WSDL message for the **RefreshAnchorContentSource** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RefreshAnchorContentSource
```

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

3.1.4.25.1.2

ISearchApplicationAdminWebService_RefreshAnchorContentSource_OutputMessage

The response WSDL message for the **RefreshAnchorContentSource** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RefreshAnchorContentSourceResponse
```

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

3.1.4.25.2 Elements

3.1.4.25.2.1 RefreshAnchorContentSource

The input data for the **RefreshAnchorContentSource** WSDL operation.

```
<xs:element name="RefreshAnchorContentSource">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.25.2.2 RefreshAnchorContentSourceResponse

The result data for the **RefreshAnchorContentSource** WSDL operation.

```
<xs:element name="RefreshAnchorContentSourceResponse">
  <xs:complexType>
```

```

    <xs:sequence>
      <xs:element minOccurs="0" name="RefreshAnchorContentSourceResult" nillable="true"
        xmlns:q15="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q15:ContentSourceDynamicPropsInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

RefreshAnchorContentSourceResult: The status of the anchor content source. This element MUST be present and MUST conform to the schema of the **ContentSourceDynamicPropsInternal** complex type specified in section [2.2.4.1](#). The **ContentSourceDynamicPropsInternal.deleteCount**, **ContentSourceDynamicPropsInternal.errorCount**, **ContentSourceDynamicPropsInternal.levelHighErrorCount**, **ContentSourceDynamicPropsInternal.successCount**, and **ContentSourceDynamicPropsInternal.warningCount** elements MUST contain zero ("0").

3.1.4.26 RefreshContentSource

This operation is used to retrieve the current status of a content source from the crawler application.

```

<wsdl:operation name="RefreshContentSource">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RefreshContentSource"
    message="tns:ISearchApplicationAdminWebService_RefreshContentSource_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RefreshContentSourceResponse"
    message="tns:ISearchApplicationAdminWebService_RefreshContentSource_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an **ISearchApplicationAdminWebService_RefreshContentSource_InputMessage** request message and the protocol server responds with an **ISearchApplicationAdminWebService_RefreshContentSource_OutputMessage** response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the content source specified by the identifier in the request message does not exist in the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- On success, the protocol server MUST return current content source status in the **RefreshContentSourceResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.26.1 Messages

3.1.4.26.1.1

ISearchApplicationAdminWebService_RefreshContentSource_InputMessage

The requested WSDL message for the **RefreshContentSource** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RefreshContentSource
```

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

3.1.4.26.1.2

ISearchApplicationAdminWebService_RefreshContentSource_OutputMessage

The response WSDL message for the **RefreshContentSource** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RefreshContentSourceResponse
```

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

3.1.4.26.2 Elements

3.1.4.26.2.1 RefreshContentSource

The input data for the **RefreshContentSource** WSDL operation.

```
<xs:element name="RefreshContentSource">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="id" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

id: The content source identifier. MUST be greater than 0.

3.1.4.26.2.2 RefreshContentSourceResponse

The result data for the **RefreshContentSource** WSDL operation.

```
<xs:element name="RefreshContentSourceResponse">
  <xs:complexType>
    <xs:sequence>
```

```

    <xs:element minOccurs="0" name="RefreshContentSourceResult" nillable="true"
xmlns:q14="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q14:ContentSourceDynamicPropsInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

RefreshContentSourceResult: The status of the content source. This element MUST be present and MUST conform to the schema of the **ContentSourceDynamicPropsInternal** complex type as specified in section [2.2.4.1](#).

3.1.4.27 RemoveContentSource

This operation is used to remove a content source from the crawler application.

```

<wsdl:operation name="RemoveContentSource">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveContentSource"
message="tns:ISearchApplicationAdminWebService_RemoveContentSource_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveContentSourceResponse"
message="tns:ISearchApplicationAdminWebService_RemoveContentSource_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_RemoveContentSource_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_RemoveContentSource_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- The protocol server MUST look up a content source by the identifier specified in the **id** element in the request message. If the content source does not exist, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server removes the content source.
- When the default content source named "Local Microsoft Search Server sites" is deleted, the protocol server MAY recreate it after an arbitrary delay. [<5>](#)
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **RemoveContentSourceResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.27.1 Messages

3.1.4.27.1.1

ISearchApplicationAdminWebService_RemoveContentSource_InputMessage

The requested WSDL message for the **RemoveContentSource** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RemoveContentSource
```

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

3.1.4.27.1.2

ISearchApplicationAdminWebService_RemoveContentSource_OutputMessage

The response WSDL message for the **RemoveContentSource** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RemoveContentSourceResponse
```

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

3.1.4.27.2 Elements

3.1.4.27.2.1 RemoveContentSource

The input data for the **RemoveContentSource** WSDL operation.

```
<xs:element name="RemoveContentSource">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="id" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

id: This element **MUST** contain the content source identifier. The identifier **MUST** be greater than 0.

3.1.4.27.2.2 RemoveContentSourceResponse

The result data for the **RemoveContentSource** WSDL operation.

```
<xs:element name="RemoveContentSourceResponse">
  <xs:complexType>
```

```

    <xs:sequence>
      <xs:element minOccurs="0" name="RemoveContentSourceResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

RemoveContentSourceResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.28 RemoveCrawlMapping

This operation is used to remove a crawl mapping from the crawler application.

```

<wsdl:operation name="RemoveCrawlMapping">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlMapping"
    message="tns:ISearchApplicationAdminWebService_RemoveCrawlMapping_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlMappingResponse"
    message="tns:ISearchApplicationAdminWebService_RemoveCrawlMapping_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_RemoveCrawlMapping_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_RemoveCrawlMapping_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- If no crawl mapping can be found which has an access URL matching the source element in the request message, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the crawl mapping exists, the protocol server MUST remove the crawl mapping from the crawler application.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **RemoveCrawlMappingResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.28.1 Messages

3.1.4.28.1.1

ISearchApplicationAdminWebService_RemoveCrawlMapping_InputMessage

The requested WSDL message for the **RemoveCrawlMapping** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlMapping
```

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

3.1.4.28.1.2

ISearchApplicationAdminWebService_RemoveCrawlMapping_OutputMessage

The response WSDL message for the **RemoveCrawlMapping** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlMappingResponse
```

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

3.1.4.28.2 Elements

3.1.4.28.2.1 RemoveCrawlMapping

The input data for the **RemoveCrawlMapping** WSDL operation.

```
<xs:element name="RemoveCrawlMapping">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="source" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

source: The access URL prefix. This element MUST be present and its content MUST be less than 2048 characters in length. It MUST match an access URL of an existing crawl mapping.

3.1.4.28.2.2 RemoveCrawlMappingResponse

The result data for the **RemoveCrawlMapping** WSDL operation.

```
<xs:element name="RemoveCrawlMappingResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="RemoveCrawlMappingResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

RemoveCrawlMappingResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.29 RemoveCrawlRule

This operation removes a crawl rule from the crawler application.

```
<wsdl:operation name="RemoveCrawlRule">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlRule"
    message="tns:ISearchApplicationAdminWebService_RemoveCrawlRule_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlRuleResponse"
    message="tns:ISearchApplicationAdminWebService_RemoveCrawlRule_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_RemoveCrawlRule_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_RemoveCrawlRule_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- The protocol server MUST normalize the **path** element of the request message the same way it normalizes the **path** element of the [AddAdvancedCrawlRule](#) operation request message.
- Then, the protocol server attempts to find an exact match for the crawl rule in the crawl rules collection of the crawler application by the normalized path.
- If the crawl rule is not found, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the crawl rule is found, the protocol server MUST remove the crawl rule from the crawler application.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **RemoveCrawlRuleResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.29.1 Messages

3.1.4.29.1.1

ISearchApplicationAdminWebService_RemoveCrawlRule_InputMessage

The requested WSDL message for the **RemoveCrawlRule** WSDL operation.

The SOAP action value is:

<http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlRule>

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

3.1.4.29.1.2

ISearchApplicationAdminWebService_RemoveCrawlRule_OutputMessage

The response WSDL message for the **RemoveCrawlRule** method.

The SOAP action value is:

<http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlRuleResponse>

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

3.1.4.29.2 Elements

3.1.4.29.2.1 RemoveCrawlRule

The input data for the **RemoveCrawlRule** WSDL operation.

```
<xs:element name="RemoveCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to 0.

currentUser: User name of the current logged on user, used for auditing purposes.

path: The path expression of the crawl rule which **MUST** be present and **MUST** have a length greater than 0 and less than 2048 characters.

3.1.4.29.2.2 RemoveCrawlRuleResponse

The result data for the **RemoveCrawlRule** WSDL operation.

```
<xs:element name="RemoveCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="RemoveCrawlRuleResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

RemoveCrawlRuleResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to 0.

3.1.4.30 RemoveExtension

This operation is used to remove a file extension from the *extensions* list defined for the crawler application.

```
<wsdl:operation name="RemoveExtension">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveExtension"
    message="tns:ISearchApplicationAdminWebService_RemoveExtension_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveExtensionResponse"
    message="tns:ISearchApplicationAdminWebService_RemoveExtension_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_RemoveExtension_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_RemoveExtension_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- If the file extension specified by `ext` element in the request message does not exist in the list, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server removes a file extension specified by the `ext` element in the request message from extension list property of the crawler application.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **RemoveExtensionResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.30.1 Messages

3.1.4.30.1.1

ISearchApplicationAdminWebService_RemoveExtension_InputMessage

The requested WSDL message for the **RemoveExtension** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RemoveExtension
```

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

3.1.4.30.1.2

ISearchApplicationAdminWebService_RemoveExtension_OutputMessage

The response WSDL message for the **RemoveExtension** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/RemoveExtensionResponse
```

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

3.1.4.30.2 Elements

3.1.4.30.2.1 RemoveExtension

The input data for the **RemoveExtension** WSDL operation.

```
<xs:element name="RemoveExtension">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="ext" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

ext: file extension . **MUST** be present. Length **MUST** be greater than 0 and less than 16 characters.

3.1.4.30.2.2 RemoveExtensionResponse

The result data for the **RemoveExtension** WSDL operation.

```
<xs:element name="RemoveExtensionResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="RemoveExtensionResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

RemoveExtensionResult: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to 0.

3.1.4.31 ResumeCrawl

This operation is used to resume a crawl of a content source of the crawler application.

```

<wsdl:operation name="ResumeCrawl">
  <wsdl:input wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ResumeCrawl"
message="tns:ISearchApplicationAdminWebService_ResumeCrawl_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ResumeCrawlResponse"
message="tns:ISearchApplicationAdminWebService_ResumeCrawl_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_ResumeCrawl_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_ResumeCrawl_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If there is no content source with the identifier specified in the **contentSource** element of the request message, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server attempts to resume a crawl for the content source with the identifier specified in the **contentSource** element of the request message.
- If the crawl is in a state where it cannot be resumed or is already resumed, the protocol server MUST ignore the resume request and return the current crawl status in the **ResumeCrawlResult** element the response message.
- On success, the protocol server MUST return the current crawl status in the **ResumeCrawlResult** element the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.31.1 Messages

3.1.4.31.1.1 ISearchApplicationAdminWebService_ResumeCrawl_InputMessage

The requested WSDL message for the **ResumeCrawl** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/ResumeCrawl
```

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

3.1.4.31.1.2 ISearchApplicationAdminWebService_ResumeCrawl_OutputMessage

The response WSDL message for the **ResumeCrawl** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/ResumeCrawlResponse
```

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

3.1.4.31.2 Elements

3.1.4.31.2.1 ResumeCrawl

The input data for the **ResumeCrawl** WSDL operation.

```
<xs:element name="ResumeCrawl">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="contentSource" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

contentSource: The identifier of the content source for which to resume the crawl.

3.1.4.31.2.2 ResumeCrawlResponse

The result data for the **ResumeCrawl** WSDL operation.

```
<xs:element name="ResumeCrawlResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="ResumeCrawlResult" nillable="true"
        xmlns:q20="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration"
        type="q20:ContentSourceDynamicPropsInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

ResumeCrawlResult: The status of the most recent crawl. This element **MUST** be present and **MUST** conform to the schema of **ContentSourceDynamicPropsInternal** complex type as specified in section [2.2.4.1](#).

3.1.4.32 SetConnectorProperty

This operation is used to store a value in the **propertyBag** collection of the crawler application.

```
<wsdl:operation name="SetConnectorProperty">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetConnectorProperty"
    message="tns:ISearchApplicationAdminWebService_SetConnectorProperty_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetConnectorPropertyResponse"
    message="tns:ISearchApplicationAdminWebService_SetConnectorProperty_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_SetConnectorProperty_InputMessage` request message and the server responds with an `ISearchApplicationAdminWebService_SetConnectorProperty_OutputMessage` response message, as follows:

- If the name element in the request message is null or empty, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the value element in the request message is null, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If there is a name/value pair with the same name as the name element in the request message, the protocol server MUST update the value of the existing pair with the value element in the request message. Otherwise, the protocol server MUST create a new pair with the requested name and value.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.32.1 Messages

3.1.4.32.1.1

ISearchApplicationAdminWebService_SetConnectorProperty_InputMessage

The requested WSDL message for the **SetConnectorProperty** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetConnectorProperty
```

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

3.1.4.32.1.2

ISearchApplicationAdminWebService_SetConnectorProperty_OutputMessage

The response WSDL message for the **SetConnectorProperty** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetConnectorPropertyResponse
```

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

3.1.4.32.2 Elements

3.1.4.32.2.1 SetConnectorProperty

The input data for the **SetConnectorProperty** WSDL operation.

```
<xs:element name="SetConnectorProperty">  
  <xs:complexType>  
    <xs:sequence>
```

```

    <xs:element minOccurs="0" name="name" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="value" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
</xs:element>

```

name: The name for which to store the corresponding value. MUST be less than or equal to 16369 characters.

value: The value to store. MUST be less than or equal to 4000 characters.

3.1.4.32.2 SetConnectorPropertyResponse

The result data for the **SetConnectorProperty** WSDL operation.

```

<xs:element name="SetConnectorPropertyResponse">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>

```

3.1.4.33 SetContentSourcesMetadata

This operation is used to set the metadata property associated with the crawler application. This metadata string is intended for protocol client use only, the protocol server just stores it without interpreting. Once set, metadata string can be obtained by calling [GetContentSources](#) operation.

```

<wsdl:operation name="SetContentSourcesMetadata">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetContentSourcesMetadata"
message="tns:ISearchApplicationAdminWebService_SetContentSourcesMetadata_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetContentSourcesMetadataResponse"
message="tns:ISearchApplicationAdminWebService_SetContentSourcesMetadata_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_SetContentSourcesMetadata_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_SetContentSourcesMetadata_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- The protocol server sets the **contentSourcesMetadata** property of the crawler application with the metadata value specified in the request message.

- On success, the protocol server MUST return the updated configuration version of the crawler application in the **SetContentSourcesMetadataResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.33.1 Messages

3.1.4.33.1.1

ISearchApplicationAdminWebService_SetContentSourcesMetadata_InputMessage

The requested WSDL message for the **SetContentSourcesMetadata** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetContentSourcesMetadata
```

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

3.1.4.33.1.2

ISearchApplicationAdminWebService_SetContentSourcesMetadata_OutputMessage

The response WSDL message for the **SetContentSourcesMetadata** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetContentSourcesMetadataResponse
```

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

3.1.4.33.2 Elements

3.1.4.33.2.1 SetContentSourcesMetadata

The input data for the **SetContentSourcesMetadata** WSDL operation.

```
<xs:element name="SetContentSourcesMetadata">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="metadata" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

metadata: Arbitrary metadata. If this element is present, its content MUST be less than 1024 characters in length. If this element is not present, the protocol server MUST assume that metadata string is empty.

3.1.4.33.2.2 SetContentSourcesMetadataResponse

The result data for the **SetContentSourcesMetadata** WSDL operation.

```
<xs:element name="SetContentSourcesMetadataResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="SetContentSourcesMetadataResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

SetContentSourcesMetadataResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.34 SetCrawlRuleCredentials

This operation is used to configure the authentication method and crawl account for a crawl rule.

```
<wsdl:operation name="SetCrawlRuleCredentials">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials"
message="tns:ISearchApplicationAdminWebService_SetCrawlRuleCredentials_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentialsResponse"
message="tns:ISearchApplicationAdminWebService_SetCrawlRuleCredentials_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_SetCrawlRuleCredentials_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_SetCrawlRuleCredentials_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- If the authentication type specified by the **authType** element of the request message is not one of the allowed values, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server MUST normalize the path element of the request message the same way it normalizes the path element of the [AddAdvancedCrawlRule](#) operation request message
- If there is no crawl rule in the crawl rule collection which has a URL equal to the normalized path, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.

- The protocol server updates the **authType** property of the crawl rule from the corresponding parameter of the method.
 - If the **authType** is 0, the protocol server MUST set the **accountName** property of the crawl rule to empty string, and the **password** property of the crawl rule to an empty string.
 - If the **authType** is 1, the protocol server MUST set the **accountName** property of the crawl rule to the value of **authString1**, and the **password** property of the crawl rule to the value of **authString2**. The protocol server MUST validate the correctness of the credentials on the index server. If credentials are not valid, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
 - If the **authType** is 2, the protocol server MUST set the **accountName** property of the crawl rule to the value of **authString1** element, and the **password** property of the crawl rule to the value of **authString2** element.
 - If the **authType** is 3, the protocol server MUST set the **certificateName** property of the crawl rule to the value of **authString1** element.
 - If the **authType** is 4, the protocol server MUST set the **authUrl** property of the crawl rule to the value of the **authString1** element, and sets the **authData** property of the crawl rule to the value of the **authString2** element. The protocol server MUST also set the **accountName**, **authPrivateData** and **miscData** properties of the crawl rule to empty.
 - If the **authType** is 5, the protocol server MUST set the **cookieName** property of the crawl rule to the value of the **authString1** element, and sets the **miscData** property of the crawl rule to the value of the **authString2** element. The protocol server MUST also set the **accountName** property of the crawl rule to empty.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **SetCrawlRuleCredentialsResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.34.1 Messages

3.1.4.34.1.1

ISearchApplicationAdminWebService_SetCrawlRuleCredentials_InputMessage

The requested WSDL message for the **SetCrawlRuleCredentials** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials
```

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

3.1.4.34.1.2

ISearchApplicationAdminWebService_SetCrawlRuleCredentials_OutputMessage

The response WSDL message for the **SetCrawlRuleCredentials** method.

The SOAP action value is:

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

3.1.4.34.2 Elements

3.1.4.34.2.1 SetCrawlRuleCredentials

The input data for the **SetCrawlRuleCredentials** WSDL operation.

```
<xs:element name="SetCrawlRuleCredentials">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="authType" type="xs:int"/>
      <xs:element minOccurs="0" name="authString1" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="authString2" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

path: The path expression corresponding to the URL of the crawl rule. **MUST** be present and length **MUST** be greater than 0 and less than 2048 characters. It **MUST** correspond to a path of a crawl rule in the crawler application's crawl rule collection.

authType: The type of the authentication to access matching URLs. **MUST** have one of the following values:

Value	Meaning
0	Default access
1	Integrated Windows authentication
2	Basic authentication
3	Authentication using certificates
4	forms-based authentication
5	Cookie based authentication

Default access implies integrated authentication using credentials of the default crawl account for the crawler application.

authString1:

- If **authType** is 0, the protocol server **MUST** ignore this element.
- If **authType** is 1 or 2, this element contains the information corresponding to the **accountName** property of the crawl rule, and the length **MUST** be less than 256 characters.

- If **authType** is 3, this element contains the information corresponding to the **certificateName** property of the crawl rule, and the length MUST be greater than 0 characters.
- If **authType** is 4, this element contains the information corresponding to the **authUrl** property of the crawl rule.
- If **authType** is 5, this element contains the information corresponding to the **cookieName** property of the crawl rule.

authString2:

- If **authType** is 0 or 3, the protocol server MUST ignore this element.
- If **authType** is 1 or 2, this element contains the information corresponding to the **password** property of the crawl rule.
- If **authType** is 4, this element contains the information corresponding to the **authData** property of the crawl rule.
- If **authType** is 5, this element contains the information corresponding to the **miscData** property of the crawl rule.

3.1.4.34.2.2 SetCrawlRuleCredentialsResponse

The result data for the **SetCrawlRuleCredentials** WSDL operation.

```
<xs:element name="SetCrawlRuleCredentialsResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="SetCrawlRuleCredentialsResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

SetCrawlRuleCredentialsResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.35 SetCrawlRuleCredentials2

This operation is used to configure the authentication method and crawl account for a crawl rule.

```
<wsdl:operation name="SetCrawlRuleCredentials2">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2"
    message="tns:ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2Response"
    message="tns:ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- If the authentication type specified by the **authType** element of the request message is not one of the allowed values, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server MUST normalize the path element of the request message the same way it normalizes the path element of the [AddAdvancedCrawlRule](#) operation request message
- If there is no crawl rule in the crawl rule collection which has a URL equal to the normalized path, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server updates the **authType** property of the crawl rule from the corresponding parameter of the method.
 - If the **authType** is 0, the protocol server MUST set the **accountName** property of the crawl rule to empty string, and the **password** property of the crawl rule to an empty string.
 - If the **authType** is 1, the protocol server MUST set the **accountName** property of the crawl rule to the value of **authString1**, and the **password** property of the crawl rule to the value of **authString2**. The protocol server MUST validate the correctness of the credentials on the index server. If credentials are not valid, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
 - If the **authType** is 2, the protocol server MUST set the **accountName** property of the crawl rule to the value of **authString1** element, and the **password** property of the crawl rule to the value of **authString2** element.
 - If the **authType** is 3, the protocol server MUST set the **certificateName** property of the crawl rule to the value of **authString1** element.
 - If the **authType** is 4, the protocol server MUST set the **authUrl**, **authData**, **authPrivateData**, and **miscData** properties of the crawl rule to the values of the **authString1**, **authString2**, **authString3**, and **authString4** elements respectively. The protocol server MUST also set the **accountName** property of the crawl rule to empty.
 - If the **authType** is 5, the protocol server MUST set the **cookieName** property of the crawl rule to the value of the **authString1** element, and sets the **miscData** property of the crawl rule to the value of the **authString2** element. The protocol server MUST also set the **accountName** property of the crawl rule to empty.
- If the lastModified element of the request message is not equal to 0001-01-01T00:00:00, then the protocol server MUST set the **accountLastModified** property of the crawl rule to the value of the lastModified element.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **SetCrawlRuleCredentialsResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.35.1 Messages

3.1.4.35.1.1

ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_InputMessage

The requested WSDL message for the **SetCrawlRuleCredentials2** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2
```

The SOAP body contains the **SetCrawlRuleCredentials2** element.

3.1.4.35.1.2

ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_OutputMessage

The response WSDL message for the **SetCrawlRuleCredentials2** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2Response
```

The SOAP body contains the **SetCrawlRuleCredentials2Response** element.

3.1.4.35.2 Elements

3.1.4.35.2.1 SetCrawlRuleCredentials2

The input data for the **SetCrawlRuleCredentials2** WSDL operation.

```
<xs:element name="SetCrawlRuleCredentials2">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="authType" type="xs:int"/>
      <xs:element minOccurs="0" name="authString1" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="authString2" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="authString3" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="authString4" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="lastModified" type="xs:dateTime"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

path: The path expression corresponding to the URL of the crawl rule. MUST be present and length MUST be greater than 0 and less than 2048 characters. It MUST correspond to a path of a crawl rule in the crawler application's crawl rule collection.

authType: The type of the authentication to access matching URLs. MUST have one of the following values:

Value	Meaning
0	Default access
1	Integrated Windows authentication
2	Basic authentication
3	Authentication using certificates
4	forms-based authentication
5	Cookie based authentication

Default access implies integrated authentication using credentials of the default crawl account for the crawler application.

authString1:

- If **authType** is 0, the protocol server MUST ignore this element.
- If **authType** is 1 or 2, this element contains the information corresponding to the **accountName** property of the crawl rule, and the length MUST be less than 256 characters.
- If **authType** is 3, this element contains the information corresponding to the **certificateName** property of the crawl rule, and the length MUST be greater than 0 characters.
- If **authType** is 4, this element contains the information corresponding to the **authUrl** property of the crawl rule.
- If **authType** is 5, this element contains the information corresponding to the **cookieName** property of the crawl rule.

authString2:

- If **authType** is 0 or 3, the protocol server MUST ignore this element.
- If **authType** is 1 or 2, this element contains the information corresponding to the **password** property of the crawl rule.
- If **authType** is 4, this element contains the information corresponding to the **authData** property of the crawl rule.
- If **authType** is 5, this element contains the information corresponding to the **miscData** property of the crawl rule.

authString3:

- If **authType** is 0, 1, 2, 3, or 5, the protocol server MUST ignore this element.

- If **authType** is 4, this element contains the information corresponding to the **authPrivateData** property of the crawl rule.

authString4:

- If **authType** is 0, 1, 2, 3, or 5, the protocol server MUST ignore this element.
- If **authType** is 4, this element contains the information corresponding to the **miscData** property of the crawl rule.

lastModified: A data time value used to derive the date the authentication information of the crawl rule was last changed. MUST be between 0001-01-01T00:00:00 and 9999-12-31T23:59:99 inclusively.

3.1.4.35.2 SetCrawlRuleCredentials2Response

The result data for the **SetCrawlRuleCredentials2** WSDL operation.

```
<xs:element name="SetCrawlRuleCredentials2Response">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="SetCrawlRuleCredentials2Result" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

SetCrawlRuleCredentials2Result: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.36 SetCrawlRulePriority

This operation is used to modify the order of the crawl rules in the ordered collection of the crawl rules in the crawler application.

```
<wsdl:operation name="SetCrawlRulePriority">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRulePriority"
    message="tns:ISearchApplicationAdminWebService_SetCrawlRulePriority_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRulePriorityResponse"
    message="tns:ISearchApplicationAdminWebService_SetCrawlRulePriority_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an **ISearchApplicationAdminWebService_SetCrawlRulePriority_InputMessage** request message and the protocol server responds with an **ISearchApplicationAdminWebService_SetCrawlRulePriority_OutputMessage** response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.

- If the **currentPriority** is the same as the **newPriority**, the protocol server MUST return the updated configuration version of the crawler application in the **SetCrawlRulePriorityResult** element in the response message
- If the priorities are different, the protocol server attempts to find a match for the **path** element's value against the crawl rules in the crawl rules collection of the crawler application.
- If no matching crawl rule is found, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the crawl rule is found, the protocol server inserts the crawl rule at the position computed by adding the current index of the crawl rule to the difference between **newPriority** and the **currentPriority**.
 - If the new index is greater than the size of the collection, the crawl rule MUST be inserted last.
 - If the new index is less than 0, the crawl rule MUST be inserted at the first position.
 - Otherwise, the crawl rule MUST be inserted at the new index position in the crawl rules collection.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **SetCrawlRulePriorityResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.36.1 Messages

3.1.4.36.1.1

ISearchApplicationAdminWebService_SetCrawlRulePriority_InputMessage

The requested WSDL message for the **SetCrawlRulePriority** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRulePriority
```

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

3.1.4.36.1.2

ISearchApplicationAdminWebService_SetCrawlRulePriority_OutputMessage

The response WSDL message for the **SetCrawlRulePriority** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRulePriorityResponse
```

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

3.1.4.36.2 Elements

3.1.4.36.2.1 SetCrawlRulePriority

The input data for the **SetCrawlRulePriority** WSDL operation.

```
<xs:element name="SetCrawlRulePriority">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="currentPriority" type="xs:int"/>
      <xs:element minOccurs="0" name="newPriority" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

path: The path expression corresponding to the URL of the crawl rule. **MUST** be present and **MUST** have length between 0 and 2048.

currentPriority: Any value. The difference between **newPriority** element and **currentPriority** element is used as an offset to the current position of the crawl rule to modify its priority.

newPriority: Any value. The difference between **newPriority** element and **currentPriority** element is used as an offset to the current position of the crawl rule to modify its priority.

3.1.4.36.2.2 SetCrawlRulePriorityResponse

The result data for the **SetCrawlRulePriority** WSDL operation.

```
<xs:element name="SetCrawlRulePriorityResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="SetCrawlRulePriorityResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

SetCrawlRulePriorityResult: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

3.1.4.37 SetDefaultGatheringAccount

This operation is used to set the default crawl account for the crawler application.

```
<wsdl:operation name="SetDefaultGatheringAccount">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetDefaultGatheringAccount"
    message="tns:ISearchApplicationAdminWebService_SetDefaultGatheringAccount_InputMessage"/>
```



```
<wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetDefaultGatheringAccountR
esponse"
message="tns:ISearchApplicationAdminWebService_SetDefaultGatheringAccount_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_SetDefaultGatheringAccount_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_SetDefaultGatheringAccount_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- If the value of the account element in the request message is NULL or empty, the protocol server MUST set the **defaultCrawlingAccount** properties of the crawler application to empty. The protocol server then MUST use the **search service account** as the default crawl account.
- If the value of the account element in the request message is malformed or does not exist, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If the value of the password element in the request message is not the correct password for the non-NULL and non-empty value of the account element in the request message, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- Otherwise, the protocol server sets the **defaultCrawlingAccount** and **defaultCrawlingAccountPassword** properties of the crawler application to the account and password values from the request message respectively.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **SetDefaultGatheringAccountResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.37.1 Messages

3.1.4.37.1.1

ISearchApplicationAdminWebService_SetDefaultGatheringAccount_InputMessage

The requested WSDL message for the **SetDefaultGatheringAccount** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetDefaultGatheringAccount
```

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

3.1.4.37.1.2

ISearchApplicationAdminWebService_SetDefaultGatheringAccount_OutputMessage

The response WSDL message for the **SetDefaultGatheringAccount** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetDefaultGatheringAccountResponse
```

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

3.1.4.37.2 Elements

3.1.4.37.2.1 SetDefaultGatheringAccount

The input data for the **SetDefaultGatheringAccount** WSDL operation.

```
<xs:element name="SetDefaultGatheringAccount">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="account" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="password" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

account: The User name. This element MUST be present, and the length MUST be less than 256 characters.

password: The password for the account. This element MUST be present.

3.1.4.37.2.2 SetDefaultGatheringAccountResponse

The result data for the **SetDefaultGatheringAccount** WSDL operation.

```
<xs:element name="SetDefaultGatheringAccountResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="SetDefaultGatheringAccountResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

SetDefaultGatheringAccountResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.38 SetIsExtensionIncludeList

This operation is used to set whether the list of file extensions in the crawler application is an inclusion list or an exclusion list.

```
<wsdl:operation name="SetIsExtensionIncludeList">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetIsExtensionIncludeList"
message="tns:ISearchApplicationAdminWebService_SetIsExtensionIncludeList_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetIsExtensionIncludeListRe
sponse"
message="tns:ISearchApplicationAdminWebService_SetIsExtensionIncludeList_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_SetIsExtensionIncludeList_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_SetIsExtensionIncludeList_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- The protocol server sets the **isExtensionIncludeList** property of the crawler application to the **isInclude** value from a request message.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **SetIsExtensionIncludeListResponse** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.38.1 Messages

3.1.4.38.1.1

ISearchApplicationAdminWebService_SetIsExtensionIncludeList_InputMessage

The requested WSDL message for the **SetIsExtensionIncludeList** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetIsExtensionIncludeList
```

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

3.1.4.38.1.2

ISearchApplicationAdminWebService_SetIsExtensionIncludeList_OutputMessage

The response WSDL message for the **SetIsExtensionIncludeList** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetIsExtensionIncludeListResponse
```

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

3.1.4.38.2 Elements

3.1.4.38.2.1 SetIsExtensionIncludeList

The input data for the **SetIsExtensionIncludeList** WSDL operation.

```
<xs:element name="SetIsExtensionIncludeList">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="isInclude" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

isInclude: The type of the file extensions list. If true, the file extensions list is an inclusion list; otherwise, the file extensions list is an exclusion list.

3.1.4.38.2.2 SetIsExtensionIncludeListResponse

The result data for the **SetIsExtensionIncludeList** WSDL operation.

```
<xs:element name="SetIsExtensionIncludeListResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="SetIsExtensionIncludeListResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

SetIsExtensionIncludeListResult: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

3.1.4.39 SetRetryLimit

This operation is used to set the retry limit for the crawler application.

```
<wsdl:operation name="SetRetryLimit">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetRetryLimit"
message="tns:ISearchApplicationAdminWebService_SetRetryLimit_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetRetryLimitResponse"
message="tns:ISearchApplicationAdminWebService_SetRetryLimit_OutputMessage"/>
```

</wsdl:operation>

The protocol client sends an `ISearchApplicationAdminWebService_SetRetryLimit_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_SetRetryLimit_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server then updates the current configuration version of the crawler application to the value of **versionIn+1**.
- The protocol server sets the **retryLimit** property of the crawler application to the **retryLimit** value from the request message.
- On success, the protocol server MUST return the updated configuration version of the crawler application in the **SetRetryLimitResult** element in the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.39.1 Messages

3.1.4.39.1.1 ISearchApplicationAdminWebService_SetRetryLimit_InputMessage

The requested WSDL message for the **SetRetryLimit** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetRetryLimit
```

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

3.1.4.39.1.2 ISearchApplicationAdminWebService_SetRetryLimit_OutputMessage

The response WSDL message for the **SetRetryLimit** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/SetRetryLimitResponse
```

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

3.1.4.39.2 Elements

3.1.4.39.2.1 SetRetryLimit

The input data for the **SetRetryLimit** WSDL operation.

```
<xs:element name="SetRetryLimit">  
  <xs:complexType>
```

```

<xs:sequence>
  <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
  <xs:element minOccurs="0" name="retryLimit" type="xs:int"/>
</xs:sequence>
</xs:complexType>
</xs:element>

```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

retryLimit: The number of times to retry, MUST be greater than or equal to zero.

3.1.4.39.2.2 SetRetryLimitResponse

The result data for the **SetRetryLimit** WSDL operation.

```

<xs:element name="SetRetryLimitResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="SetRetryLimitResult" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

SetRetryLimitResult: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

3.1.4.40 StartCrawl

This operation is used to start a crawl of a content source of the crawler application.

```

<wsdl:operation name="StartCrawl">
  <wsdl:input wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StartCrawl"
  message="tns:ISearchApplicationAdminWebService_StartCrawl_InputMessage"/>
  <wsdl:output
  wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StartCrawlResponse"
  message="tns:ISearchApplicationAdminWebService_StartCrawl_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_StartCrawl_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_StartCrawl_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If there is no content source with the identifier specified in the **contentSource** element of the request message, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- If a full crawl is specified in the request message's **type** element, the protocol server MUST attempt to start a full crawl for the specified content source.

- If an incremental crawl is specified in the request message's **type** element, and the specified content source has not been crawled before, or the last crawl of the content source was stopped before it completed, the protocol server **MUST** attempt to start a full crawl for the content source.
- If an incremental crawl is specified in the request message's **type** element, and the specified content source has been crawled before, and the last crawl was not stopped before it completed, the protocol server **MUST** attempt to start an incremental crawl for the content source.
- If the crawl is in a state where it cannot be started or is already started, the protocol server **MUST** ignore the start request and return the current crawl status in the **StartCrawlResult** element the response message.
- On success, the protocol server **MUST** return the current crawl status in the **StartCrawlResult** element of the response message.
- For all other errors, the protocol server **MUST** send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.40.1 Messages

3.1.4.40.1.1 ISearchApplicationAdminWebService_StartCrawl_InputMessage

The requested WSDL message for the **StartCrawl** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/StartCrawl
```

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

3.1.4.40.1.2 ISearchApplicationAdminWebService_StartCrawl_OutputMessage

The response WSDL message for the **StartCrawl** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/StartCrawlResponse
```

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

3.1.4.40.2 Elements

3.1.4.40.2.1 StartCrawl

The input data for the **StartCrawl** WSDL operation.

```
<xs:element name="StartCrawl">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="contentSource" type="xs:int"/>
      <xs:element minOccurs="0" name="type" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

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

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

contentSource: The identifier of the content source for which to start the crawl.

type: The type of the crawl to start. If 0, a full crawl; otherwise, an incremental crawl.

3.1.4.40.2.2 StartCrawlResponse

The result data for the **StartCrawl** WSDL operation.

```
<xs:element name="StartCrawlResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="StartCrawlResult" nillable="true"
        xmlns:q18="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q18:ContentSourceDynamicPropsInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

StartCrawlResult: The status of the most recent crawl. This element MUST be present and MUST conform to the schema of the **ContentSourceDynamicPropsInternal** complex type as specified in section [2.2.4.1](#).

3.1.4.41 StartRankingUpdate

This operation is used to start the anchor crawl of the anchor content source. The anchor crawl cannot be stopped by the protocol client.

```
<wsdl:operation name="StartRankingUpdate">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StartRankingUpdate"
    message="tns:ISearchApplicationAdminWebService_StartRankingUpdate_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StartRankingUpdateResponse"
    message="tns:ISearchApplicationAdminWebService_StartRankingUpdate_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an **ISearchApplicationAdminWebService_StartRankingUpdate_InputMessage** request message and the protocol server responds with an **ISearchApplicationAdminWebService_StartRankingUpdate_OutputMessage** response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- Then the protocol server starts anchor crawl of the anchor content source.

- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.41.1 Messages

3.1.4.41.1.1

ISearchApplicationAdminWebService_StartRankingUpdate_InputMessage

The requested WSDL message for the **StartRankingUpdate** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/StartRankingUpdate
```

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

3.1.4.41.1.2

ISearchApplicationAdminWebService_StartRankingUpdate_OutputMessage

The response WSDL message for the **StartRankingUpdate** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/StartRankingUpdateResponse
```

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

3.1.4.41.2 Elements

3.1.4.41.2.1 StartRankingUpdate

The input data for the **StartRankingUpdate** WSDL operation.

```
<xs:element name="StartRankingUpdate">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="type"
xmlns:q13="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Administrat
ion" type="q13:RankingUpdateType"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

type: This element MUST conform to the schema of RankingUpdateType simple type.

3.1.4.41.2.2 StartRankingUpdateResponse

The result data for the **StartRankingUpdate** WSDL operation.

```

<xs:element name="StartRankingUpdateResponse">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>

```

3.1.4.41.3 Simple Types

3.1.4.41.3.1 RankingUpdateType (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Administration>)

The definition of the **RankingUpdateType** type is as follows:

```

<xs:simpleType name="RankingUpdateType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="FullUpdate"/>
    <xs:enumeration value="ClickDistanceUpdate"/>
    <xs:enumeration value="QueryIndependentRankRefresh"/>
  </xs:restriction>
</xs:simpleType>

```

The following table specifies the allowable values for RankingUpdateType:

Value	Meaning
FullUpdate	Starts a full anchor crawl
ClickDistanceUpdate	Not Used
QueryIndependentRankRefresh	Starts an incremental anchor crawl

3.1.4.42 StopCrawl

This operation is used to stop a crawl of a content source of the crawler application.

```

<wsdl:operation name="StopCrawl">
  <wsdl:input wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StopCrawl"
  message="tns:ISearchApplicationAdminWebService_StopCrawl_InputMessage"/>
  <wsdl:output
  wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StopCrawlResponse"
  message="tns:ISearchApplicationAdminWebService_StopCrawl_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_StopCrawl_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_StopCrawl_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.

- If there is no content source with the identifier specified in the **contentSource** element of the request message, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- The protocol server attempts to stop the crawl of the content source with the identifier specified in the **contentSource** element of the request message.
- If the crawl is in a state where it cannot be stopped or is already stopped, the protocol server MUST ignore the stop request and return the current crawl status in the **StopCrawlResult** element the response message.
- On success, the protocol server MUST return the current crawl status in the **StopCrawlResult** element the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.42.1 Messages

3.1.4.42.1.1 ISearchApplicationAdminWebService_StopCrawl_InputMessage

The requested WSDL message for the **StopCrawl** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/StopCrawl
```

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

3.1.4.42.1.2 ISearchApplicationAdminWebService_StopCrawl_OutputMessage

The response WSDL message for the **StopCrawl** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/StopCrawlResponse
```

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

3.1.4.42.2 Elements

3.1.4.42.2.1 StopCrawl

The input data for the **StopCrawl** WSDL operation.

```
<xs:element name="StopCrawl">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="contentSource" type="xs:int"/>
    </xs:sequence>
  </xs:complexType>
```

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

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

contentSource: The identifier of the content source for which to stop the crawl

3.1.4.42.2.2 StopCrawlResponse

The result data for the **StopCrawl** WSDL operation.

```
<xs:element name="StopCrawlResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="StopCrawlResult" nillable="true"
        xmlns:q21="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q21:ContentSourceDynamicPropsInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

StopCrawlResult: The status of the most recent crawl. This element MUST be present and MUST conform to the schema of the **ContentSourceDynamicPropsInternal** complex type as specified in section [2.2.4.1](#).

3.1.4.43 TestCrawlRule

This operation is used to check if a specified URL matches the specified crawl rule.

```
<wsdl:operation name="TestCrawlRule">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRule"
    message="tns:ISearchApplicationAdminWebService_TestCrawlRule_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRuleResponse"
    message="tns:ISearchApplicationAdminWebService_TestCrawlRule_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_TestCrawlRule_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_TestCrawlRule_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException**<**ExceptionDetail**> message.
- The protocol server MUST normalize the **path** element of the request message the same way it normalizes the **path** element of the [AddAdvancedCrawlRule](#) operation request message.
- The protocol server attempts to find the crawl rule in the crawl rules collection of the crawler application by the value of the normalized path. (The **path** element represents the crawl rule the protocol client wishes to test)

- If no matching crawl rule is found, the protocol server MUST throw **FaultException<ExceptionDetail>** message.
- If a matching crawl rule is found, the protocol server first normalizes the URL specified by the **url** element of the request message the same way it normalizes the **path** element of the **AddAdvancedCrawlRule** operation request message
- The protocol server then matches the normalized URL with the crawl rule and MUST return true in the **TestCrawlRuleResult** element of the response message if the URL matches the crawl rule, and false in the **TestCrawlRuleResult** element of the response message if the URL does not match
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.43.1 Messages

3.1.4.43.1.1 ISearchApplicationAdminWebService_TestCrawlRule_InputMessage

The requested WSDL message for the **TestCrawlRule** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRule
```

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

3.1.4.43.1.2 ISearchApplicationAdminWebService_TestCrawlRule_OutputMessage

The response WSDL message for the **TestCrawlRule** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRuleResponse
```

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

3.1.4.43.2 Elements

3.1.4.43.2.1 TestCrawlRule

The input data for the **TestCrawlRule** WSDL operation.

```
<xs:element name="TestCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="url" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero

path: The path expression of the **crawl rule** that the protocol client wishes to test. MUST be present and the length MUST be greater than 0 and less than 2048 characters.

url: A URL to test against the crawl rule. MUST be present and the length MUST be greater than 0 and less than 2048 characters.

3.1.4.43.2.2 TestCrawlRuleResponse

The result data for the **TestCrawlRule** WSDL operation.

```
<xs:element name="TestCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="TestCrawlRuleResult" type="xs:boolean"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

TestCrawlRuleResult: True, if the URL matched the crawl rule; otherwise, false.

3.1.4.44 TestCrawlRules

This operation is used to find the first crawl rule in the crawler application's crawl rules collection that matches a specified URL

```
<wsdl:operation name="TestCrawlRules">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRules"
message="tns:ISearchApplicationAdminWebService_TestCrawlRules_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRulesResponse"
message="tns:ISearchApplicationAdminWebService_TestCrawlRules_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_TestCrawlRules_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_TestCrawlRules_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw a **FaultException**<**ExceptionDetail**> message.
- The protocol server MUST normalize the URL specified by the **url** element of the request message the same way it normalizes the **path** element of the [AddAdvancedCrawlRule](#) operation request message.
- If there are no crawl rules in the crawler application's crawl rules collection, the protocol server MUST return an empty string in the **TestCrawlRulesResult** element of the response message.
- Then, the protocol server MUST check the normalized URL against all crawl rules in the collection and return the path expression of the first matching crawl rule.

- Otherwise, if the URL does not match any of the crawl rules the protocol server MUST return null in the **TestCrawlRulesResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.44.1 Messages

3.1.4.44.1.1 ISearchApplicationAdminWebService_TestCrawlRules_InputMessage

The requested WSDL message for the **TestCrawlRules** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRules
```

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

3.1.4.44.1.2

ISearchApplicationAdminWebService_TestCrawlRules_OutputMessage

The response WSDL message for the **TestCrawlRules** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRulesResponse
```

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

3.1.4.44.2 Elements

3.1.4.44.2.1 TestCrawlRules

The input data for the **TestCrawlRules** WSDL operation.

```
<xs:element name="TestCrawlRules">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="url" nillable="true" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element MUST contain a value greater than or equal to zero

url: A URL to test against the crawl rules. MUST be present and the length MUST be greater than 0 and less than 2048 characters.

3.1.4.44.2.2 TestCrawlRulesResponse

The result data for the **TestCrawlRules** WSDL operation.

```

<xs:element name="TestCrawlRulesResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="TestCrawlRulesResult" nillable="true"
type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

TestCrawlRulesResult: The path expression of the crawl rule that matched the specified URL. The value of this element MUST be null if there are no matching crawl rules.

3.1.4.45 UpdateCrawlRule

This operation is used to update a crawl rule for the crawler application.

```

<wsdl:operation name="UpdateCrawlRule">
  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRule"
message="tns:ISearchApplicationAdminWebService_UpdateCrawlRule_InputMessage"/>
  <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRuleResponse"
message="tns:ISearchApplicationAdminWebService_UpdateCrawlRule_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_UpdateCrawlRule_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_UpdateCrawlRule_OutputMessage` response message, as follows:

- Then, the protocol server MUST normalize the *path* parameter of the operation the same way it normalizes the **path** element of the [AddAdvancedCrawlRule](#) operation request message. Then, if a crawl rule with the same normalized path does not exist in the crawler application, the protocol server MUST throw a **FaultException<ExceptionDetail>** message.
- Then, the protocol server MUST update the properties of the crawl rule using the elements of the *rule* parameter, setting the **path** (normalized the same way as the path parameter described earlier), **type**, **suppressIndexing**, **isAdvancedRegularExpression**, **miscData**, **followComplexUrls**, **caseSensitiveURL**, **crawlAsHttp**, **contentClass**, and **PluggableSecurityTrimmerId** properties of the [crawl rule](#) to the values of the corresponding elements of the *rule* parameter. Other elements of the *rule* parameter MUST be ignored.
- On success, the protocol server MUST return the updated **path** property of the crawl rule in the **UpdateCrawlRuleResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.45.1 Messages

3.1.4.45.1.1

ISearchApplicationAdminWebService_UpdateCrawlRule_InputMessage

The requested WSDL message for the **UpdateCrawlRule** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRule
```

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

3.1.4.45.1.2

ISearchApplicationAdminWebService_UpdateCrawlRule_OutputMessage

The response WSDL message for the **UpdateCrawlRule** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRuleResponse
```

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

3.1.4.45.2 Elements

3.1.4.45.2.1 UpdateCrawlRule

The input data for the **UpdateCrawlRule** WSDL operation.

```
<xs:element name="UpdateCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string"/>
      <xs:element minOccurs="0" name="rule" nillable="true"
        xmlns:q6="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q6:CrawlRuleInternal"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero.

currentUser: User name of the current logged on user, used for auditing purposes.

path: The path expression of the crawl rule that needs to be updated. **MUST** be present and length **MUST** be greater than 0 and less than 2048 characters.

rule: The new values of the crawl rule properties. This element **MUST** be present.

3.1.4.45.2.2 UpdateCrawlRuleResponse

The result data for the **UpdateCrawlRule** WSDL operation.

```
<xs:element name="UpdateCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
```

```

        <xs:element minOccurs="0" name="UpdateCrawlRuleResult" nillable="true"
type="xs:string"/>
    </xs:sequence>
</xs:complexType>
</xs:element>

```

UpdateCrawlRuleResult: The updated crawl rule path expression. MUST be present and length MUST be greater than 0 and less than 2048 characters.

3.1.4.46 ValidateScheduleTrigger

This operation is used to validate that a trigger, as specified in [\[MS-TSCH\]](#), 2.4.2.11|Triggers, can be used to schedule a crawl

```

<wsdl:operation name="ValidateScheduleTrigger">
    <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ValidateScheduleTrigger"
message="tns:ISearchApplicationAdminWebService_ValidateScheduleTrigger_InputMessage"/>
    <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ValidateScheduleTriggerResp
onse" message="tns:ISearchApplicationAdminWebService_ValidateScheduleTrigger_OutputMessage"/>
</wsdl:operation>

```

The protocol client sends an `ISearchApplicationAdminWebService_ValidateScheduleTrigger_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_ValidateScheduleTrigger_OutputMessage` response message, as follows:

- On receipt the protocol server validates the **versionIn** value from the request message. If it doesn't match the current configuration version of the crawler application, the protocol server MUST throw **FaultException<ExceptionDetail>** message.
- Then, the protocol server tries to confirm that the trigger specified in the **trigger** element of the request message is a valid trigger for scheduling a crawl.
- On success, the protocol server MUST return details about the trigger in the **ValidateScheduleTriggerResult** element of the response message.
- For all other errors, the protocol server MUST send a **FaultException<ExceptionDetail>** message to the protocol client.

3.1.4.46.1 Messages

3.1.4.46.1.1

ISearchApplicationAdminWebService_ValidateScheduleTrigger_InputMessage

The requested WSDL message for the **ValidateScheduleTrigger** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/ValidateScheduleTrigger
```

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

3.1.4.46.1.2

ISearchApplicationAdminWebService_ValidateScheduleTrigger_OutputMessage

The response WSDL message for the **ValidateScheduleTrigger** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/ValidateScheduleTriggerResponse
```

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

3.1.4.46.2 Elements

3.1.4.46.2.1 **ValidateScheduleTrigger**

The input data for the **ValidateScheduleTrigger** WSDL operation.

```
<xs:element name="ValidateScheduleTrigger">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int"/>
      <xs:element minOccurs="0" name="trigger" nillable="true" type="xs:base64Binary"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

versionIn: The configuration version of the crawler application. This element **MUST** contain a value greater than or equal to zero

trigger: A trigger, as specified in [\[MS-TSCH\]](#), 2.4.2.11|Triggers to be validated. This element **MUST** be present and **MUST** be base64 encoded

3.1.4.46.2.2 **ValidateScheduleTriggerResponse**

The result data for the **ValidateScheduleTrigger** WSDL operation.

```
<xs:element name="ValidateScheduleTriggerResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="ValidateScheduleTriggerResult"
xmlns:q3="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" type="q3:TriggerUpdate"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

ValidateScheduleTriggerResult: The trigger details, as specified in [\[MS-TSCH\]](#), 2.4.2.11|Triggers. This element **MUST** conform to the schema of the [TriggerUpdate](#) complex type

3.1.4.46.3 Complex Types

3.1.4.46.3.1 TriggerUpdate (from namespace <http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration>)

The definition of the **TriggerUpdate** type is as follows:

```
<xs:complexType name="TriggerUpdate">
  <xs:annotation>
    <xs:appinfo>
      <IsValueType
        xmlns="http://schemas.microsoft.com/2003/10/Serialization/">true</IsValueType>
    </xs:appinfo>
  </xs:annotation>
  <xs:sequence>
    <xs:element minOccurs="0" name="description" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="nextStart" type="xs:dateTime"/>
  </xs:sequence>
</xs:complexType>
```

description: Description of the trigger, as specified in [\[MS-TSCH\]](#), 2.4.2.11|Triggers. This element **MUST** be present.

nextStart: The next start time of the trigger, as specified in [\[MS-TSCH\]](#), 2.4.2.11|Triggers.

3.1.4.47 WaitForInProgressAnchorCrawlToComplete

This operation is used to wait until no anchor crawl is in progress.

```
<wsdl:operation name="WaitForInProgressAnchorCrawlToComplete">
  <wsdl:input
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/WaitForInProgressAnchorCrawlToComplete"
    message="tns:ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_InputMessage"/>
  <wsdl:output
    wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/WaitForInProgressAnchorCrawlToCompleteResponse"
    message="tns:ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_OutputMessage"/>
</wsdl:operation>
```

The protocol client sends an `ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_InputMessage` request message and the protocol server responds with an `ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_OutputMessage` response message, as follows:

- If there is no anchor crawl in progress, the protocol server **MUST** return true in the **WaitForInProgressAnchorCrawlToCompleteResult** element of the response message.
- Otherwise, the protocol server **MUST** wait until anchor crawl has been completed and then **MUST** return true in the **WaitForInProgressAnchorCrawlToCompleteResult** element of the response message.

- For any error, the protocol server MUST return false in the **WaitForInProgressAnchorCrawlToCompleteResult** element of the response message.

3.1.4.47.1 Messages

3.1.4.47.1.1

ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_InputMessage

The requested WSDL message for the **WaitForInProgressAnchorCrawlToComplete** WSDL operation.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/WaitForInProgressAnchorCrawlToComplete
```

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

3.1.4.47.1.2

ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_OutputMessage

The response WSDL message for the **WaitForInProgressAnchorCrawlToComplete** method.

The SOAP action value is:

```
http://tempuri.org/ISearchApplicationAdminWebService/WaitForInProgressAnchorCrawlToCompleteResponse
```

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

3.1.4.47.2 Elements

3.1.4.47.2.1 WaitForInProgressAnchorCrawlToComplete

The input data for the **WaitForInProgressAnchorCrawlToComplete** WSDL operation.

```
<xs:element name="WaitForInProgressAnchorCrawlToComplete">  
  <xs:complexType>  
    <xs:sequence/>  
  </xs:complexType>  
</xs:element>
```

3.1.4.47.2.2 WaitForInProgressAnchorCrawlToCompleteResponse

The result data for the **WaitForInProgressAnchorCrawlToComplete** WSDL operation.

```
<xs:element name="WaitForInProgressAnchorCrawlToCompleteResponse">  
  <xs:complexType>  
    <xs:sequence>  
      <xs:element minOccurs="0" name="WaitForInProgressAnchorCrawlToCompleteResult"  
        type="xs:boolean"/>  
    </xs:sequence>  
  </xs:complexType>  
</xs:element>
```

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

WaitForInProgressAnchorCrawlToCompleteResult: A status of the operation. MUST be present and MUST be one of the following values:

Value	Meaning
false	The operation was not successful. The protocol server encountered an error while waiting for an anchor crawl to complete.
true	The operation was successful. An anchor crawl was not in progress or has been completed after the protocol server received the request message.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

4.1 Creating and Configuring a Content Source

Creating a content source typically involves the following messages:

1. Obtaining the current configuration version of the crawler application.
2. Retrieving the list of existing content sources.
3. Adding a new content source.
4. Updating the content source properties.

4.1.1 GetVersion

Request message:

```
<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetVersion
    </a:Action>
    <a:MessageID>
      urn:uuid:1878754b-300d-4d3c-b829-959032801c23
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
    <ServiceContext
      xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <correlationId>
        911980c5-e8aa-415b-aaae-8b7871f2d317
      </correlationId>
      <language>en-US</language>
      <region>en-US</region>
      <siteSubscriptionId>
        00000000-0000-0000-0000-000000000000
      </siteSubscriptionId>
    </ServiceContext>
    <a:To s:mustUnderstand="1" u:Id="_1">
      https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
    </a:To>
  </s:Header>
  <s:Body>
    <GetVersion xmlns="http://tempuri.org/"></GetVersion>
  </s:Body>
</s:Envelope>
```

Response message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetVersionResponse
    </a:Action>
    <a:RelatesTo>
      urn:uuid:1878754b-300d-4d3c-b829-959032801c23
    </a:RelatesTo>
  </s:Header>
  <s:Body>
    <GetVersionResponse xmlns="http://tempuri.org/">
      <GetVersionResult>10</GetVersionResult>
    </GetVersionResponse>
  </s:Body>
</s:Envelope>

```

4.1.2 GetContentSources

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetContentSources
    </a:Action>
    <a:MessageID>
      urn:uuid:61ce9fb9-56b2-457e-b135-1e59fb367575
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
    <ServiceContext
      xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <correlationId>
        911980c5-e8aa-415b-aaae-8b7871f2d317
      </correlationId>
      <language>en-US</language>
      <region>en-US</region>
      <siteSubscriptionId>
        00000000-0000-0000-0000-000000000000
      </siteSubscriptionId>
    </ServiceContext>
    <a:To s:mustUnderstand="1" u:Id="_1">
      https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
    </a:To>
  </s:Header>

```



```

<s:Body>
  <GetContentSources xmlns="http://tempuri.org/">
    <versionIn>10</versionIn>
  </GetContentSources>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetContentSourcesResponse
    </a:Action>
  </s:Header>
  <s:Body>
    <GetContentSourcesResponse xmlns="http://tempuri.org/">
      <GetContentSourcesResult
        xmlns:d4p1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration"
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <d4p1:contentSourcesInternal>
          <d4p1:ContentSourceInternal>
            <d4p1:crawlPriority>1</d4p1:crawlPriority>
            <d4p1:dynamic>
              <d4p1:crawlCompleted>1899-12-30T00:00:00</d4p1:crawlCompleted>
              <d4p1:crawlStarted>1899-12-30T00:00:00</d4p1:crawlStarted>
              <d4p1:crawlStatus>0</d4p1:crawlStatus>
              <d4p1:deleteCount>0</d4p1:deleteCount>
              <d4p1:errorCount>0</d4p1:errorCount>
              <d4p1:levelHighErrorCount>0</d4p1:levelHighErrorCount>
              <d4p1:successCount>0</d4p1:successCount>
              <d4p1:warningCount>0</d4p1:warningCount>
            </d4p1:dynamic>
            <d4p1:followDirectories>>false</d4p1:followDirectories>
            <d4p1:fullCrawlTrigger i:nil="true"></d4p1:fullCrawlTrigger>
            <d4p1:fullScheduleDescription i:nil="true"></d4p1:fullScheduleDescription>
            <d4p1:id>2</d4p1:id>
            <d4p1:incCrawlTrigger i:nil="true"></d4p1:incCrawlTrigger>
            <d4p1:incScheduleDescription i:nil="true"></d4p1:incScheduleDescription>
            <d4p1:metadata></d4p1:metadata>
            <d4p1:name>Local SharePoint sites</d4p1:name>
            <d4p1:nextFullCrawlStart>9999-12-31T23:59:59.9999999</d4p1:nextFullCrawlStart>
            <d4p1:nextIncCrawlStart>9999-12-31T23:59:59.9999999</d4p1:nextIncCrawlStart>
            <d4p1:pageDepth>2147483647</d4p1:pageDepth>
            <d4p1:siteDepth>0</d4p1:siteDepth>
            <d4p1:startAddresses
              xmlns:d7p1="http://schemas.microsoft.com/2003/10/Serialization/Arrays">
              <d7p1:string>http://example.com</d7p1:string>
              <d7p1:string>sps3://example.com</d7p1:string>
            </d4p1:startAddresses>
            <d4p1:systemCreated>>true</d4p1:systemCreated>
            <d4p1:type>1</d4p1:type>
            <d4p1:wssCrawlStyle>CrawlVirtualServers</d4p1:wssCrawlStyle>
          </d4p1:ContentSourceInternal>
        </d4p1:ContentSourceInternal>
      </GetContentSourcesResult>
    </GetContentSourcesResponse>
  </s:Body>
</s:Envelope>

```

```

    <d4pl:crawlPriority>1</d4pl:crawlPriority>
    <d4pl:dynamic>
    <d4pl:crawlCompleted>1899-12-30T00:00:00</d4pl:crawlCompleted>
    <d4pl:crawlStarted>1899-12-30T00:00:00</d4pl:crawlStarted>
    <d4pl:crawlStatus>0</d4pl:crawlStatus>
    <d4pl:deleteCount>0</d4pl:deleteCount>
    <d4pl:errorCount>0</d4pl:errorCount>
    <d4pl:levelHighErrorCount>0</d4pl:levelHighErrorCount>
    <d4pl:successCount>0</d4pl:successCount>
    <d4pl:warningCount>0</d4pl:warningCount>
  </d4pl:dynamic>
  <d4pl:followDirectories>>false</d4pl:followDirectories>
  <d4pl:fullCrawlTrigger i:nil="true"></d4pl:fullCrawlTrigger>
  <d4pl:fullScheduleDescription i:nil="true"></d4pl:fullScheduleDescription>
  <d4pl:id>3</d4pl:id>
  <d4pl:incCrawlTrigger i:nil="true"></d4pl:incCrawlTrigger>
  <d4pl:incScheduleDescription i:nil="true"></d4pl:incScheduleDescription>
  <d4pl:metadata></d4pl:metadata>
  <d4pl:name>Contoso</d4pl:name>
  <d4pl:nextFullCrawlStart>9999-12-31T23:59:59.9999999</d4pl:nextFullCrawlStart>
  <d4pl:nextIncCrawlStart>9999-12-31T23:59:59.9999999</d4pl:nextIncCrawlStart>
  <d4pl:pageDepth>2147483647</d4pl:pageDepth>
  <d4pl:siteDepth>0</d4pl:siteDepth>
  <d4pl:startAddresses
xmlns:d7pl="http://schemas.microsoft.com/2003/10/Serialization/Arrays">
    <d7pl:string>http://contoso.com</d7pl:string>
  </d4pl:startAddresses>
  <d4pl:systemCreated>>false</d4pl:systemCreated>
  <d4pl:type>0</d4pl:type>
  <d4pl:wssCrawlStyle>CrawlVirtualServers</d4pl:wssCrawlStyle>
</d4pl:ContentSourceInternal>
</d4pl:contentSourcesInternal>
  <d4pl:metadata></d4pl:metadata>
</GetContentSourcesResult>
</GetContentSourcesResponse>
</s:Body>
</s:Envelope>

```

4.1.3 AddContentSource

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/AddContentSource
    </a:Action>
    <a:MessageID>
      urn:uuid:b7452de9-3d32-4c0f-9864-b5c5f5f80d03
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
  </s:Header>
  <s:Body>
  </s:Body>
</s:Envelope>

```

```

    </a:Address>
  </a:ReplyTo>
  <ServiceContext
    xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
    xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
    <correlationId>
      911980c5-e8aa-415b-aaae-8b7871f2d317
    </correlationId>
    <language>en-US</language>
    <region>en-US</region>
    <siteSubscriptionId>00000000-0000-0000-0000-000000000000</siteSubscriptionId>
  </ServiceContext>
  <a:To s:mustUnderstand="1" u:Id="_1">
    https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
  </a:To>
</s:Header>
<s:Body>
  <AddContentSource xmlns="http://tempuri.org/">
    <versionIn>10</versionIn>
    <currentUser>DOMAINNAME\username</currentUser>
    <type>1</type>
    <wssCrawlStyle>CrawlVirtualServers</wssCrawlStyle>
    <name>New Content Source Name</name>
  </AddContentSource>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/AddContentSourceResponse
    </a:Action>
    <a:RelatesTo>
      urn:uuid:b7452de9-3d32-4c0f-9864-b5c5f5f80d03
    </a:RelatesTo>
  </s:Header>
  <s:Body>
    <AddContentSourceResponse xmlns="http://tempuri.org/">
      <AddContentSourceResult>8</AddContentSourceResult>
    </AddContentSourceResponse>
  </s:Body>
</s:Envelope>

```

4.1.4 EditContentSource

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"

```

```

xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
<s:Header>
  <a:Action s:mustUnderstand="1">
    http://tempuri.org/ISearchApplicationAdminWebService/EditContentSource
  </a:Action>
  <a:MessageID>
    urn:uuid:6fc5c517-6876-449e-ba44-94798598c914
  </a:MessageID>
  <a:ReplyTo>
    <a:Address>
      http://www.w3.org/2005/08/addressing/anonymous
    </a:Address>
  </a:ReplyTo>
  <ServiceContext
    xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
    xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
    <correlationId>
      911980c5-e8aa-415b-aaaa-8b7871f2d317
    </correlationId>
    <language>en-US</language>
    <region>en-US</region>
    <siteSubscriptionId>
      00000000-0000-0000-0000-000000000000
    </siteSubscriptionId>
  </ServiceContext>
  <a:To s:mustUnderstand="1" u:Id="1">
    https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
  </a:To>
</s:Header>
<s:Body>
  <EditContentSource xmlns="http://tempuri.org/">
    <versionIn>10</versionIn>
    <currentUser>DOMAINNAME\username</currentUser>
    <id>8</id>
    <name>New Content Source Name</name>
    <metadata></metadata>
    <hostDepth>0</hostDepth>
    <enumerationDepth>2147483647</enumerationDepth>
    <followDirectories>>false</followDirectories>
    <startAddresses xmlns:b="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <b:string>http://contoso.com/</b:string>
    </startAddresses>
    <fullCrawlTrigger i:nil="true" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance"></fullCrawlTrigger>
    <incCrawlTrigger i:nil="true" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance"></incCrawlTrigger>
    <crawlPriority>1</crawlPriority>
  </EditContentSource>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"

```

```

    xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/EditContentSourceResponse
    </a:Action>
    <a:RelatesTo>
      urn:uuid:6fc5c517-6876-449e-ba44-94798598c914
    </a:RelatesTo>
  </s:Header>
  <s:Body>
    <EditContentSourceResponse xmlns="http://tempuri.org/">
      <EditContentSourceResult>11</EditContentSourceResult>
    </EditContentSourceResponse>
  </s:Body>
</s:Envelope>

```

4.2 Configuring Zero or More Crawl Rules

Creating a crawl rule is illustrated by the following steps:

1. Obtaining the current configuration version of the crawler application.
2. Getting the current list of crawl rules.
3. Creating a new crawl rule.
4. Updating properties of the new crawl rule.
5. Setting the crawl rule credentials.

4.2.1 GetVersion

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetVersion
    </a:Action>
    <a:MessageID>
      urn:uuid:1878754b-300d-4d3c-b829-959032801c23
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
    <ServiceContext
      xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <correlationId>
        911980c5-e8aa-415b-aaae-8b7871f2d317
      </correlationId>
    </ServiceContext>
  </s:Header>
  <s:Body>
  </s:Body>
</s:Envelope>

```

```

    </correlationId>
    <language>en-US</language>
    <region>en-US</region>
    <siteSubscriptionId>
        00000000-0000-0000-0000-000000000000
    </siteSubscriptionId>
</ServiceContext>
<a:To s:mustUnderstand="1" u:Id="_1">
    https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
</a:To>
</s:Header>
<s:Body>
    <GetVersion xmlns="http://tempuri.org/"></GetVersion>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetVersionResponse
    </a:Action>
    <a:RelatesTo>
      urn:uuid:1878754b-300d-4d3c-b829-959032801c23
    </a:RelatesTo>
  </s:Header>
  <s:Body>
    <GetVersionResponse xmlns="http://tempuri.org/">
      <GetVersionResult>10</GetVersionResult>
    </GetVersionResponse>
  </s:Body>
</s:Envelope>

```

4.2.2 GetCrawlRuleList

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleList
    </a:Action>
    <a:MessageID>
      urn:uuid:2d35b4bb-a3df-462e-873c-bcd6d459ee85
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>

```

```

    http://www.w3.org/2005/08/addressing/anonymous
  </a:Address>
</a:ReplyTo>
<ServiceContext
  xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <correlationId>
    ed7e5a95-1fc7-436a-b0d0-711dcb59fec1
  </correlationId>
  <language>en-US</language>
  <region>en-US</region>
  <siteSubscriptionId>
    00000000-0000-0000-0000-000000000000
  </siteSubscriptionId>
</ServiceContext>
<a:To s:mustUnderstand="1" u:Id="_1">
  https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
</a:To>
</s:Header>
<s:Body>
  <GetCrawlRuleList xmlns="http://tempuri.org/">
    <versionIn>12</versionIn>
  </GetCrawlRuleList>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleListResponse
    </a:Action>
  </s:Header>
  <s:Body>
    <GetCrawlRuleListResponse xmlns="http://tempuri.org/">
      <GetCrawlRuleListResult

xmlns:d4pl="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.A
dministration"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      </GetCrawlRuleListResult>
    </GetCrawlRuleListResponse>
  </s:Body>
</s:Envelope>

```

4.2.3 AddAdvancedCrawlRule

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"

```

```

xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
<s:Header>
  <a:Action s:mustUnderstand="1">
    http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRule
  </a:Action>
  <a:MessageID>
    urn:uuid:ecc6f21c-c071-46a1-b25d-49fc0d1432cc
  </a:MessageID>
  <a:ReplyTo>
    <a:Address>
      http://www.w3.org/2005/08/addressing/anonymous
    </a:Address>
  </a:ReplyTo>
  <ServiceContext
    xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
    xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
    <correlationId>
      6c9ce4ae-43a6-48c4-814b-e909b4e2b73e
    </correlationId>
    <language>en-US</language>
    <region>en-US</region>
    <siteSubscriptionId>
      00000000-0000-0000-0000-000000000000
    </siteSubscriptionId>
  </ServiceContext>
  <a:To s:mustUnderstand="1" u:Id="_1">
    https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
  </a:To>
</s:Header>
<s:Body>
  <AddAdvancedCrawlRule xmlns="http://tempuri.org/">
    <versionIn>12</versionIn>
    <currentUser>DOMAINNAME\username</currentUser>
    <isIncludeRule>>false</isIncludeRule>
    <isAdvancedRegularExpression>>false</isAdvancedRegularExpression>
    <caseSensitiveUR>>false</caseSensitiveUR>
    <path>http://example.com</path>
  </AddAdvancedCrawlRule>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRuleResponse
    </a:Action>
  </s:Header>
  <s:Body>
    <AddAdvancedCrawlRuleResponse xmlns="http://tempuri.org/">
      <AddAdvancedCrawlRuleResult>http://example.com</AddAdvancedCrawlRuleResult>
    </AddAdvancedCrawlRuleResponse>
  </s:Body>

```


</s:Envelope>

4.2.4 UpdateCrawlRule

Request message:

```
<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRule
    </a:Action>
    <a:MessageID>
      urn:uuid:6f331b1a-7059-4c41-a652-b70fb2ae1f6d
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
    <ServiceContext
      xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <correlationId>
        6c9ce4ae-43a6-48c4-814b-e909b4e2b73e
      </correlationId>
      <language>en-US</language>
      <region>en-US</region>
      <siteSubscriptionId>
        00000000-0000-0000-0000-000000000000
      </siteSubscriptionId>
    </ServiceContext>
    <a:To s:mustUnderstand="1" u:Id="_1">
      https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
    </a:To>
  </s:Header>
  <s:Body>
    <UpdateCrawlRule xmlns="http://tempuri.org/">
      <versionIn>12</versionIn>
      <currentUser>DOMAINNAME\username</currentUser>
      <path>http://example.com</path>
      <rule

  xmlns:b="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration"
    xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
    <b:accountLastModified>0001-01-01T00:00:00</b:accountLastModified>
    <b:accountName i:nil="true"></b:accountName>
    <b:authData i:nil="true"></b:authData>
    <b:authUrl i:nil="true"></b:authUrl>
    <b:authenticationType>0</b:authenticationType>
    <b:caseSensitiveURL>>false</b:caseSensitiveURL>
    <b:contentClass></b:contentClass>
    <b:crawlAsHttp>>false</b:crawlAsHttp>
```

```

    <b:followComplexUrls>>false</b:followComplexUrls>
    <b:isAdvancedRegularExpression>>false</b:isAdvancedRegularExpression>
    <b:miscData></b:miscData>
    <b:path>http://example.com</b:path>
    <b:pluggableSecurityTrimmerId>-1</b:pluggableSecurityTrimmerId>
    <b:suppressIndexing>>false</b:suppressIndexing>
    <b:type>1</b:type>
  </rule>
</UpdateCrawlRule>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRuleResponse
    </a:Action>
  </s:Header>
  <s:Body>
    <UpdateCrawlRuleResponse xmlns="http://tempuri.org/">
      <UpdateCrawlRuleResult>http://example.com</UpdateCrawlRuleResult>
    </UpdateCrawlRuleResponse>
  </s:Body>
</s:Envelope>

```

4.2.5 SetCrawlRuleCredentials2

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2
    </a:Action>
    <a:MessageID>
      urn:uuid:066f23f7-4b75-4bb0-a919-f179a92c4c40
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
    <ServiceContext
      xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <correlationId>
        fc695260-ca6e-4ca0-84b5-ab527f250c38
      </correlationId>
    </ServiceContext>
  </s:Header>
  <s:Body>
    <SetCrawlRuleCredentials2Request xmlns="http://tempuri.org/">
      <CrawlRule>
        <path>http://example.com</path>
        <followComplexUrls>false</followComplexUrls>
        <isAdvancedRegularExpression>false</isAdvancedRegularExpression>
        <miscData></miscData>
        <pluggableSecurityTrimmerId>-1</pluggableSecurityTrimmerId>
        <suppressIndexing>false</suppressIndexing>
        <type>1</type>
      </CrawlRule>
    </SetCrawlRuleCredentials2Request>
  </s:Body>
</s:Envelope>

```

```

    <language>en-US</language>
    <region>en-US</region>
    <siteSubscriptionId>
      00000000-0000-0000-0000-000000000000
    </siteSubscriptionId>
  </ServiceContext>
  <a:To s:mustUnderstand="1" u:Id="_1">
    https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
  </a:To>
</s:Header>
<s:Body>
  <SetCrawlRuleCredentials2 xmlns="http://tempuri.org/">
    <versionIn>12</versionIn>
    <currentUser>DOMAINNAME\username</currentUser>
    <path>http://example.com</path>
    <authType>1</authType>
    <authString1>NEW_DOMAINNAME\new_username</authString1>
    <authString2>password:</authString2>
    <authString3></authString3>
    <authString4></authString4>
    <lastModified>2010-01-07T07:15:56.3176742Z</lastModified>
  </SetCrawlRuleCredentials2>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2Response
    </a:Action>
  </s:Header>
  <s:Body>
    <SetCrawlRuleCredentials2Response xmlns="http://tempuri.org/">
      <SetCrawlRuleCredentials2Result>13</SetCrawlRuleCredentials2Result>
    </SetCrawlRuleCredentials2Response>
  </s:Body>
</s:Envelope>

```

4.3 Crawling a Content Source

Following is an example of the steps typically needed to start a crawl:

- Obtaining the current configuration version of the crawler application.
- Retrieving the list of existing content sources.
- Requesting the start of the crawl operation.

4.3.1 GetVersion

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetVersion
    </a:Action>
    <a:MessageID>
      urn:uuid:1878754b-300d-4d3c-b829-959032801c23
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
    <ServiceContext
      xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <correlationId>
        911980c5-e8aa-415b-aaae-8b7871f2d317
      </correlationId>
      <language>en-US</language>
      <region>en-US</region>
      <siteSubscriptionId>
        00000000-0000-0000-0000-000000000000
      </siteSubscriptionId>
    </ServiceContext>
    <a:To s:mustUnderstand="1" u:Id="1">
      https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
    </a:To>
  </s:Header>
  <s:Body>
    <GetVersion xmlns="http://tempuri.org/"></GetVersion>
  </s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      https
      ://tempuri.org/ISearchApplicationAdminWebService/GetVersionResponse
    </a:Action>
    <a:RelatesTo>
      urn:uuid:1878754b-300d-4d3c-b829-959032801c23
    </a:RelatesTo>
  </s:Header>
  <s:Body>
    <GetVersionResponse xmlns="http://tempuri.org/">
      <GetVersionResult>10</GetVersionResult>
    </GetVersionResponse>
  </s:Body>
</s:Envelope>

```

```
</s:Body>
</s:Envelope>
```

4.3.2 GetContentSources

Request message:

```
<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetContentSources
    </a:Action>
    <a:MessageID>
      urn:uuid:61ce9fb9-56b2-457e-b135-1e59fb367575
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
    <ServiceContext
      xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <correlationId>
        911980c5-e8aa-415b-aaaa-8b7871f2d317
      </correlationId>
      <language>en-US</language>
      <region>en-US</region>
      <siteSubscriptionId>
        00000000-0000-0000-0000-000000000000
      </siteSubscriptionId>
    </ServiceContext>
    <a:To s:mustUnderstand="1" u:Id="_1">
      https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
    </a:To>
  </s:Header>
  <s:Body>
    <GetContentSources xmlns="http://tempuri.org/">
      <versionIn>10</versionIn>
    </GetContentSources>
  </s:Body>
</s:Envelope>
```

Response message:

```
<s:Envelope
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/GetContentSourcesResponse
    </a:Action>
```

```

</s:Header>
<s:Body>
  <GetContentSourcesResponse xmlns="http://tempuri.org/">
    <GetContentSourcesResult
xmlns:d4pl="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration"
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <d4pl:contentSourcesInternal>
        <d4pl:ContentSourceInternal>
          <d4pl:crawlPriority>1</d4pl:crawlPriority>
          <d4pl:dynamic>
            <d4pl:crawlCompleted>1899-12-30T00:00:00</d4pl:crawlCompleted>
            <d4pl:crawlStarted>1899-12-30T00:00:00</d4pl:crawlStarted>
            <d4pl:crawlStatus>0</d4pl:crawlStatus>
            <d4pl:deleteCount>0</d4pl:deleteCount>
            <d4pl:errorCount>0</d4pl:errorCount>
            <d4pl:levelHighErrorCount>0</d4pl:levelHighErrorCount>
            <d4pl:successCount>0</d4pl:successCount>
            <d4pl:warningCount>0</d4pl:warningCount>
          </d4pl:dynamic>
          <d4pl:followDirectories>>false</d4pl:followDirectories>
          <d4pl:fullCrawlTrigger i:nil="true"></d4pl:fullCrawlTrigger>
          <d4pl:fullScheduleDescription i:nil="true"></d4pl:fullScheduleDescription>
          <d4pl:id>2</d4pl:id>
          <d4pl:incCrawlTrigger i:nil="true"></d4pl:incCrawlTrigger>
          <d4pl:incScheduleDescription i:nil="true"></d4pl:incScheduleDescription>
          <d4pl:metadata></d4pl:metadata>
          <d4pl:name>Local SharePoint sites</d4pl:name>
          <d4pl:nextFullCrawlStart>9999-12-31T23:59:59.9999999</d4pl:nextFullCrawlStart>
          <d4pl:nextIncCrawlStart>9999-12-31T23:59:59.9999999</d4pl:nextIncCrawlStart>
          <d4pl:pageDepth>2147483647</d4pl:pageDepth>
          <d4pl:siteDepth>0</d4pl:siteDepth>
          <d4pl:startAddresses
xmlns:d7pl="http://schemas.microsoft.com/2003/10/Serialization/Arrays">
            <d7pl:string>http://example.com</d7pl:string>
            <d7pl:string>sps3://example.com</d7pl:string>
          </d4pl:startAddresses>
          <d4pl:systemCreated>>true</d4pl:systemCreated>
          <d4pl:type>1</d4pl:type>
          <d4pl:wssCrawlStyle>CrawlVirtualServers</d4pl:wssCrawlStyle>
        </d4pl:ContentSourceInternal>
        <d4pl:ContentSourceInternal>
          <d4pl:crawlPriority>1</d4pl:crawlPriority>
          <d4pl:dynamic>
            <d4pl:crawlCompleted>1899-12-30T00:00:00</d4pl:crawlCompleted>
            <d4pl:crawlStarted>1899-12-30T00:00:00</d4pl:crawlStarted>
            <d4pl:crawlStatus>0</d4pl:crawlStatus>
            <d4pl:deleteCount>0</d4pl:deleteCount>
            <d4pl:errorCount>0</d4pl:errorCount>
            <d4pl:levelHighErrorCount>0</d4pl:levelHighErrorCount>
            <d4pl:successCount>0</d4pl:successCount>
            <d4pl:warningCount>0</d4pl:warningCount>
          </d4pl:dynamic>
          <d4pl:followDirectories>>false</d4pl:followDirectories>
          <d4pl:fullCrawlTrigger i:nil="true"></d4pl:fullCrawlTrigger>
          <d4pl:fullScheduleDescription i:nil="true"></d4pl:fullScheduleDescription>
          <d4pl:id>3</d4pl:id>
          <d4pl:incCrawlTrigger i:nil="true"></d4pl:incCrawlTrigger>
          <d4pl:incScheduleDescription i:nil="true"></d4pl:incScheduleDescription>

```

```

    <d4p1:metadata></d4p1:metadata>
    <d4p1:name>Contoso</d4p1:name>
    <d4p1:nextFullCrawlStart>9999-12-31T23:59:59.9999999</d4p1:nextFullCrawlStart>
    <d4p1:nextIncCrawlStart>9999-12-31T23:59:59.9999999</d4p1:nextIncCrawlStart>
    <d4p1:pageDepth>2147483647</d4p1:pageDepth>
    <d4p1:siteDepth>0</d4p1:siteDepth>
    <d4p1:startAddresses
xmlns:d7p1="http://schemas.microsoft.com/2003/10/Serialization/Arrays">
      <d7p1:string>http://contoso.com</d7p1:string>
    </d4p1:startAddresses>
    <d4p1:systemCreated>>false</d4p1:systemCreated>
    <d4p1:type>0</d4p1:type>
    <d4p1:wssCrawlStyle>CrawlVirtualServers</d4p1:wssCrawlStyle>
  </d4p1:ContentSourceInternal>
</d4p1:contentSourcesInternal>
  <d4p1:metadata></d4p1:metadata>
</GetContentSourcesResult>
</GetContentSourcesResponse>
</s:Body>
</s:Envelope>

```

4.3.3 StartCrawl

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/StartCrawl
    </a:Action>
    <a:MessageID>
      urn:uuid:313f8ac7-4d54-4b1b-9f78-2a3be0f8456a
    </a:MessageID>
    <a:ReplyTo>
      <a:Address>
        http://www.w3.org/2005/08/addressing/anonymous
      </a:Address>
    </a:ReplyTo>
    <ServiceContext
      xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
      xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <correlationId>
        2ec1f31c-b35c-4bb0-a9a1-8f92f476c7e1
      </correlationId>
      <language>en-US</language>
      <region>en-US</region>
      <siteSubscriptionId>
        00000000-0000-0000-0000-000000000000
      </siteSubscriptionId>
    </ServiceContext>
    <a:To s:mustUnderstand="1" u:Id="_1">
      https://example.com:32844/780a94234626422ab7bcef6ee5e184a9/SearchAdmin.svc
    </a:To>
  </s:Header>
  <s:Body>
  </s:Body>
</s:Envelope>

```

```

</s:Header>
<s:Body>
  <StartCrawl xmlns="http://tempuri.org/">
    <versionIn>13</versionIn>
    <currentUser>DOMAINNAME\username</currentUser>
    <contentSource>3</contentSource>
    <type>0</type>
  </StartCrawl>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://tempuri.org/ISearchApplicationAdminWebService/StartCrawlResponse
    </a:Action>
  </s:Header>
  <s:Body>
    <StartCrawlResponse xmlns="http://tempuri.org/">
      <StartCrawlResult
        xmlns:d4p1="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration"
        xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
          <d4p1:crawlCompleted>1899-12-30T00:00:00</d4p1:crawlCompleted>
          <d4p1:crawlStarted>1899-12-30T00:00:00</d4p1:crawlStarted>
          <d4p1:crawlStatus>12</d4p1:crawlStatus>
          <d4p1:deleteCount>0</d4p1:deleteCount>
          <d4p1:errorCount>0</d4p1:errorCount>
          <d4p1:levelHighErrorCount>0</d4p1:levelHighErrorCount>
          <d4p1:successCount>0</d4p1:successCount>
          <d4p1:warningCount>0</d4p1:warningCount>
        </StartCrawlResult>
      </StartCrawlResponse>
    </s:Body>
  </s:Envelope>

```

4.4 Exception Handling

If a fault occurs, the protocol server sends a SOAP fault message to notify the protocol client. As an example, if the protocol client tries to create a crawl rule with a path that already exists, the protocol server returns a SOAP fault message reporting the problem. The following messages illustrate this scenario.

Request message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>

```



```

<a:Action s:mustUnderstand="1">
  http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRule
</a:Action>
<a:MessageID>
  urn:uuid:aa215fdb-e07a-40ce-9a57-2a1386d02279
</a:MessageID>
<a:ReplyTo>
  <a:Address>
    http://www.w3.org/2005/08/addressing/anonymous
  </a:Address>
</a:ReplyTo>
<ServiceContext
  xmlns="http://schemas.microsoft.com/sharepoint/servicecontext"
  xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <correlationId>
    blc3e066-ale5-41eb-8ed7-da68a8f36f4a
  </correlationId>
  <language>en-US</language>
  <region>en-US</region>
  <siteSubscriptionId>
    00000000-0000-0000-0000-000000000000
  </siteSubscriptionId>
</ServiceContext>
<a:To s:mustUnderstand="1" u:Id="_1">
  https://example.com:32844/0058e686f6ab4d9f8cea639340ab947c/SearchAdmin.svc
</a:To>
</s:Header>
<s:Body>
  <AddAdvancedCrawlRule xmlns="http://tempuri.org/">
    <versionIn>4</versionIn>
    <currentUser>DOMAINNAME\username</currentUser>
    <isIncludeRule>>false</isIncludeRule>
    <isAdvancedRegularExpression>>false</isAdvancedRegularExpression>
    <caseSensitiveUR>>false</caseSensitiveUR>
    <path>http://example.com/*</path>
  </AddAdvancedCrawlRule>
</s:Body>
</s:Envelope>

```

Response message:

```

<s:Envelope
  xmlns:s="http://www.w3.org/2003/05/soap-envelope"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <s:Header>
    <a:Action s:mustUnderstand="1">
      http://schemas.microsoft.com/net/2005/12/windowscommunicationfoundation/dispatcher/fault
    </a:Action>
    <a:RelatesTo>
      urn:uuid:aa215fdb-e07a-40ce-9a57-2a1386d02279
    </a:RelatesTo>
  </s:Header>
  <s:Body>
    <s:Fault>
      <s:Code>

```

```

    <s:Value>s:Receiver</s:Value>
    <s:Subcode>
      <s:Value>
        xmlns:a="http://schemas.microsoft.com/net/2005/12/windowscommunicationfoundation/dispatcher">
          a:InternalServiceFault
            </s:Value>
          </s:Subcode>
        </s:Code>
      <s:Reason>
        <s:Text xml:lang="en-US">
          The object you are trying to create already exists. Try again using a different
name.
        </s:Text>
      </s:Reason>
      <s:Detail>
        <ExceptionDetail
          xmlns="http://schemas.datacontract.org/2004/07/System.ServiceModel"
          xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <HelpLink i:nil="true"></HelpLink>
            <InnerException i:nil="true"></InnerException>
            <Message>
              The object you are trying to create already exists. Try again using a different
name.
            </Message>
            <StackTrace>
              at
Microsoft.Office.Server.Search.Administration.SearchApi.RunOnServer[T](CodeToRun`1
remoteCode, CodeToRun`1 localCode, Boolean useCurrentSecurityContext, Int32 versionIn)at
Microsoft.Office.Server.Search.Administration.SearchApi.RunOnServer[T](CodeToRun`1
remoteCode, CodeToRun`1 localCode)at Microsoft.Office.Server.Search.Admi An error occurred
while parsing EntityName. Line 39, position 90lnistration.SearchApi.AddCrawlRule(Int32
versionIn, String currentUser, Boolean isIncludeRule, Boolean isAdvancedRegularExpression,
Boolean caseSensitiveURL, String path)at
Microsoft.Office.Server.Search.Administration.SearchAdminWebServiceApplication.AddAdvancedCra
wlRule(Int32 versionIn, String currentUser, Boolean isIncludeRule, Boolean
isAdvancedRegularExpression, Boolean caseSensitiveURL, String path)at
SyncInvokeAddAdvancedCrawlRule(Object , Object[], Object[])at
System.ServiceModel.Dispatcher.SyncMethodInvoker.Invoke(Object instance, Object[]inputs,
Object[]&outputs)at
System.ServiceModel.Dispatcher.DispatchOperationRuntime.InvokeBegin(MessageRpc&rpc)at
System.ServiceModel.Dispatcher.ImmutableDispatchRuntime.ProcessMessage5(MessageRpc&rpc)at
System.ServiceModel.Dispatcher.ImmutableDispatchRuntime.ProcessMessage4(MessageRpc&rpc)at
System.ServiceModel.Dispatcher.MessageRpc.Process(Boolean isOperationContextSet)
            </StackTrace>
            <Type>System.Runtime.InteropServices.COMException</Type>
          </ExceptionDetail>
        </s:Detail>
      </s:Fault>
    </s:Body>
  </s:Envelope>

```

5 Security

5.1 Security Considerations for Implementers

Because operations specified by this protocol modify configuration of the index server, in addition to the security considerations applicable to the underlying protocols, implementers are advised to consider user authorization on the server for performing the requested operation.

5.2 Index of Security Parameters

Security Parameter	Section
Transport	section 2.1

6 Appendix A: Full WSDL

For ease of implementation, the full WSDL is provided here.

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:tns="http://tempuri.org/"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" name="ISearchApplicationAdminWebService"
targetNamespace="http://tempuri.org/" xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xs:schema elementFormDefault="qualified" targetNamespace="http://tempuri.org/"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:import
namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Administrat
ion" />
      <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/" />
      <xs:import
namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Ad
ministration" />
      <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/Arrays" />
      <xs:element name="ValidateScheduleTrigger">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="versionIn" type="xs:int" />
            <xs:element minOccurs="0" name="trigger" nillable="true" type="xs:base64Binary"
/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="ValidateScheduleTriggerResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element
xmlns:q3="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Adm
inistration" minOccurs="0" name="ValidateScheduleTriggerResult" type="q3:TriggerUpdate" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="AddExtension">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="versionIn" type="xs:int" />
            <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string" />
            <xs:element minOccurs="0" name="ext" nillable="true" type="xs:string" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="AddExtensionResponse">
        <xs:complexType>
          <xs:sequence>
            <xs:element minOccurs="0" name="AddExtensionResult" type="xs:int" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="RemoveExtension">
        <xs:complexType>
          <xs:sequence>
```

```

        <xs:element minOccurs="0" name="versionIn" type="xs:int" />
        <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string" />
        <xs:element minOccurs="0" name="ext" nillable="true" type="xs:string" />
    </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="RemoveExtensionResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element minOccurs="0" name="RemoveExtensionResult" type="xs:int" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="ClearExtensionList">
    <xs:complexType>
        <xs:sequence>
            <xs:element minOccurs="0" name="versionIn" type="xs:int" />
            <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="ClearExtensionListResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element minOccurs="0" name="ClearExtensionListResult" type="xs:int" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="GetExtensionList">
    <xs:complexType>
        <xs:sequence>
            <xs:element minOccurs="0" name="versionIn" type="xs:int" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="GetExtensionListResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element xmlns:q4="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
minOccurs="0" name="GetExtensionListResult" nillable="true" type="q4:ArrayOfstring" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="SetIsExtensionIncludeList">
    <xs:complexType>
        <xs:sequence>
            <xs:element minOccurs="0" name="versionIn" type="xs:int" />
            <xs:element minOccurs="0" name="isInclude" type="xs:boolean" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="SetIsExtensionIncludeListResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element minOccurs="0" name="SetIsExtensionIncludeListResult" type="xs:int" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="AddCrawlRule">

```

```

<xs:complexType>
  <xs:sequence>
    <xs:element minOccurs="0" name="versionIn" type="xs:int" />
    <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="isIncludeRule" type="xs:boolean" />
    <xs:element minOccurs="0" name="path" nillable="true" type="xs:string" />
  </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="AddCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="AddCrawlRuleResult" nillable="true"
type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="AddAdvancedCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int" />
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string" />
      <xs:element minOccurs="0" name="isIncludeRule" type="xs:boolean" />
      <xs:element minOccurs="0" name="isAdvancedRegularExpression" type="xs:boolean" />
      <xs:element minOccurs="0" name="caseSensitiveUR" type="xs:boolean" />
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="AddAdvancedCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="AddAdvancedCrawlRuleResult" nillable="true"
type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="RemoveCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int" />
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string" />
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="RemoveCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="RemoveCrawlRuleResult" type="xs:int" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="GetCrawlRuleList">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int" />
    </xs:sequence>
  </xs:complexType>

```

```

</xs:element>
<xs:element name="GetCrawlRuleListResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element
xmlns:q5="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" minOccurs="0" name="GetCrawlRuleListResult" nillable="true"
type="q5:ArrayOfCrawlRuleInternal" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="UpdateCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int" />
      <xs:element minOccurs="0" name="currentUser" nillable="true" type="xs:string" />
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string" />
      <xs:element
xmlns:q6="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration" minOccurs="0" name="rule" nillable="true" type="q6:CrawlRuleInternal" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="UpdateCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="UpdateCrawlRuleResult" nillable="true"
type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="TestCrawlRule">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="versionIn" type="xs:int" />
      <xs:element minOccurs="0" name="path" nillable="true" type="xs:string" />
      <xs:element minOccurs="0" name="url" nillable="true" type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="TestCrawlRuleResponse">
  <xs:complexType>
    <xs:sequence>
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type="q10:ArrayOfCrawlMappingInternal" />
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type="q12:ContentStateInternal" />
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</xs:element>
<xs:element name="IsDeleteCrawlInProgress">
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type="q14:ContentSourceDynamicPropsInternal" />
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    <xs:element name="RefreshAnchorContentSourceResponse">
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type="q15:ContentSourceDynamicPropsInternal" />
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    <xs:element name="EditContentSource">
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minOccurs="0" name="startAddresses" nillable="true" type="q16:ArrayOfstring" />
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type="xs:base64Binary" />
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type="xs:base64Binary" />
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type="q18:ContentSourceDynamicPropsInternal" />
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  </xs:element>
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type="q19:ContentSourceDynamicPropsInternal" />
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    </xs:complexType>
  </xs:element>
  <xs:element name="ResumeCrawl">
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type="q20:ContentSourceDynamicPropsInternal" />
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    <xs:element name="StopCrawl">
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type="q21:ContentSourceDynamicPropsInternal" />
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targetNamespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Administration" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:simpleType name="ComponentRole">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Admin" />
      <xs:enumeration value="Query" />
      <xs:enumeration value="Crawl" />
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    </xs:restriction>
  </xs:simpleType>
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  </xs:simpleType>
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type="tns:SharePointCrawlBehavior" />
  <xs:simpleType name="RankingUpdateType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="FullUpdate" />
      <xs:enumeration value="ClickDistanceUpdate" />
      <xs:enumeration value="QueryIndependentRankRefresh" />
    </xs:restriction>
  </xs:simpleType>
  <xs:element name="RankingUpdateType" nillable="true" type="tns:RankingUpdateType" />
</xs:schema>

```

```

    <xs:schema xmlns:tns="http://schemas.microsoft.com/2003/10/Serialization/"
      attributeFormDefault="qualified" elementFormDefault="qualified"
      targetNamespace="http://schemas.microsoft.com/2003/10/Serialization/"
      xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:element name="anyType" nillable="true" type="xs:anyType" />
      <xs:element name="anyURI" nillable="true" type="xs:anyURI" />
      <xs:element name="base64Binary" nillable="true" type="xs:base64Binary" />
      <xs:element name="boolean" nillable="true" type="xs:boolean" />
      <xs:element name="byte" nillable="true" type="xs:byte" />
      <xs:element name="dateTime" nillable="true" type="xs:dateTime" />
      <xs:element name="decimal" nillable="true" type="xs:decimal" />
      <xs:element name="double" nillable="true" type="xs:double" />
      <xs:element name="float" nillable="true" type="xs:float" />
      <xs:element name="int" nillable="true" type="xs:int" />
      <xs:element name="long" nillable="true" type="xs:long" />
      <xs:element name="QName" nillable="true" type="xs:QName" />
      <xs:element name="short" nillable="true" type="xs:short" />
      <xs:element name="string" nillable="true" type="xs:string" />
      <xs:element name="unsignedByte" nillable="true" type="xs:unsignedByte" />
      <xs:element name="unsignedInt" nillable="true" type="xs:unsignedInt" />
      <xs:element name="unsignedLong" nillable="true" type="xs:unsignedLong" />
      <xs:element name="unsignedShort" nillable="true" type="xs:unsignedShort" />
      <xs:element name="char" nillable="true" type="tns:char" />
      <xs:simpleType name="char">
        <xs:restriction base="xs:int" />
      </xs:simpleType>
      <xs:element name="duration" nillable="true" type="tns:duration" />
      <xs:simpleType name="duration">
        <xs:restriction base="xs:duration">
          <xs:pattern value="\-?P(\d*D)?(T(\d*H)?(\d*M)?(\d*(\.\d*)?S)?)?" />
          <xs:minInclusive value="-P10675199DT2H48M5.4775808S" />
          <xs:maxInclusive value="P10675199DT2H48M5.4775807S" />
        </xs:restriction>
      </xs:simpleType>
      <xs:element name="guid" nillable="true" type="tns:guid" />
      <xs:simpleType name="guid">
        <xs:restriction base="xs:string">
          <xs:pattern value="\[da-fA-F]{8}-\[da-fA-F]{4}-\[da-fA-F]{4}-\[da-fA-F]{4}-\[da-fA-F]{12}" />
        </xs:restriction>
      </xs:simpleType>
      <xs:attribute name="FactoryType" type="xs:QName" />
      <xs:attribute name="Id" type="xs:ID" />
      <xs:attribute name="Ref" type="xs:IDREF" />
    </xs:schema>
    <xs:schema
      xmlns:tns="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration"
      elementFormDefault="qualified"
      targetNamespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Internal.Administration"
      xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/" />
      <xs:import namespace="http://schemas.microsoft.com/2003/10/Serialization/Arrays" />
      <xs:import
        namespace="http://schemas.datacontract.org/2004/07/Microsoft.Office.Server.Search.Administration" />
      <xs:complexType name="TriggerUpdate">
        <xs:sequence>
          <xs:element minOccurs="0" name="description" nillable="true" type="xs:string" />
          <xs:element minOccurs="0" name="nextStart" type="xs:dateTime" />
        </xs:sequence>

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</xs:complexType>
<xs:element name="TriggerUpdate" nillable="true" type="tns:TriggerUpdate" />
<xs:complexType name="ArrayOfCrawlRuleInternal">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="CrawlRuleInternal"
nillable="true" type="tns:CrawlRuleInternal" />
  </xs:sequence>
</xs:complexType>
<xs:element name="ArrayOfCrawlRuleInternal" nillable="true"
type="tns:ArrayOfCrawlRuleInternal" />
<xs:complexType name="CrawlRuleInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="accountLastModified" type="xs:dateTime" />
    <xs:element minOccurs="0" name="accountName" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="authData" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="authUrl" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="authenticationType" type="xs:int" />
    <xs:element minOccurs="0" name="caseSensitiveURL" type="xs:boolean" />
    <xs:element minOccurs="0" name="contentClass" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="crawlAsHttp" type="xs:boolean" />
    <xs:element minOccurs="0" name="followComplexUrls" type="xs:boolean" />
    <xs:element minOccurs="0" name="isAdvancedRegularExpression" type="xs:boolean" />
    <xs:element minOccurs="0" name="miscData" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="path" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="pluggableSecurityTrimmerId" type="xs:int" />
    <xs:element minOccurs="0" name="suppressIndexing" type="xs:boolean" />
    <xs:element minOccurs="0" name="type" type="xs:int" />
  </xs:sequence>
</xs:complexType>
<xs:element name="CrawlRuleInternal" nillable="true" type="tns:CrawlRuleInternal" />
<xs:complexType name="ArrayOfSiteRestrictionInternal">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="SiteRestrictionInternal"
nillable="true" type="tns:SiteRestrictionInternal" />
  </xs:sequence>
</xs:complexType>
<xs:element name="ArrayOfSiteRestrictionInternal" nillable="true"
type="tns:ArrayOfSiteRestrictionInternal" />
<xs:complexType name="SiteRestrictionInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="name" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="paths" nillable="true"
type="tns:ArrayOfSitePathInternal" />
  </xs:sequence>
</xs:complexType>
<xs:element name="SiteRestrictionInternal" nillable="true"
type="tns:SiteRestrictionInternal" />
<xs:complexType name="ArrayOfSitePathInternal">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="SitePathInternal"
nillable="true" type="tns:SitePathInternal" />
  </xs:sequence>
</xs:complexType>
<xs:element name="ArrayOfSitePathInternal" nillable="true"
type="tns:ArrayOfSitePathInternal" />
<xs:complexType name="SitePathInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="contentClass" nillable="true" type="xs:string" />
    <xs:element minOccurs="0" name="path" nillable="true" type="xs:string" />
  </xs:sequence>
</xs:complexType>

```

```

</xs:complexType>
<xs:element name="SitePathInternal" nillable="true" type="tns:SitePathInternal" />
<xs:complexType name="ContentSourcesInternal">
  <xs:sequence>
    <xs:element minOccurs="0" name="contentSourcesInternal" nillable="true"
type="tns:ArrayOfContentSourceInternal" />
    <xs:element minOccurs="0" name="metadata" nillable="true" type="xs:string" />
  </xs:sequence>
</xs:complexType>
<xs:element name="ContentSourcesInternal" nillable="true"
type="tns:ContentSourcesInternal" />
  <xs:complexType name="ArrayOfContentSourceInternal">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="ContentSourceInternal"
nillable="true" type="tns:ContentSourceInternal" />
    </xs:sequence>
  </xs:complexType>
  <xs:element name="ArrayOfContentSourceInternal" nillable="true"
type="tns:ArrayOfContentSourceInternal" />
    <xs:complexType name="ContentSourceInternal">
      <xs:sequence>
        <xs:element minOccurs="0" name="crawlPriority" type="xs:int" />
        <xs:element minOccurs="0" name="dynamic" nillable="true"
type="tns:ContentSourceDynamicPropsInternal" />
        <xs:element minOccurs="0" name="followDirectories" type="xs:boolean" />
        <xs:element minOccurs="0" name="fullCrawlTrigger" nillable="true"
type="xs:base64Binary" />
        <xs:element minOccurs="0" name="fullScheduleDescription" nillable="true"
type="xs:string" />
        <xs:element minOccurs="0" name="id" type="xs:int" />
        <xs:element minOccurs="0" name="incCrawlTrigger" nillable="true"
type="xs:base64Binary" />
        <xs:element minOccurs="0" name="incScheduleDescription" nillable="true"
type="xs:string" />
        <xs:element minOccurs="0" name="metadata" nillable="true" type="xs:string" />
        <xs:element minOccurs="0" name="name" nillable="true" type="xs:string" />
        <xs:element minOccurs="0" name="nextFullCrawlStart" type="xs:dateTime" />
        <xs:element minOccurs="0" name="nextIncCrawlStart" type="xs:dateTime" />
        <xs:element minOccurs="0" name="pageDepth" type="xs:int" />
        <xs:element minOccurs="0" name="siteDepth" type="xs:int" />
        <xs:element xmlns:q1="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
minOccurs="0" name="startAddresses" nillable="true" type="q1:ArrayOfstring" />
        <xs:element minOccurs="0" name="systemCreated" type="xs:boolean" />
        <xs:element minOccurs="0" name="type" type="xs:int" />
      </xs:sequence>
    </xs:complexType>
  <xs:element name="ContentSourceInternal" nillable="true"
type="tns:ContentSourceInternal" />
    <xs:complexType name="ContentSourceDynamicPropsInternal">
      <xs:sequence>
        <xs:element minOccurs="0" name="crawlCompleted" type="xs:dateTime" />
        <xs:element minOccurs="0" name="crawlStarted" type="xs:dateTime" />
        <xs:element minOccurs="0" name="crawlStatus" type="xs:int" />
        <xs:element minOccurs="0" name="deleteCount" type="xs:int" />
        <xs:element minOccurs="0" name="errorCount" type="xs:int" />
        <xs:element minOccurs="0" name="levelHighErrorCount" type="xs:int" />
        <xs:element minOccurs="0" name="successCount" type="xs:int" />
      </xs:sequence>
    </xs:complexType>
  </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="wssCrawlStyle" type="q2:SharePointCrawlBehavior" />
</xs:sequence>
</xs:complexType>

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        <xs:element minOccurs="0" name="warningCount" type="xs:int" />
    </xs:sequence>
</xs:complexType>
<xs:element name="ContentSourceDynamicPropsInternal" nillable="true"
type="tns:ContentSourceDynamicPropsInternal" />
    <xs:complexType name="ArrayOfCrawlMappingInternal">
        <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="unbounded" name="CrawlMappingInternal"
nillable="true" type="tns:CrawlMappingInternal" />
        </xs:sequence>
    </xs:complexType>
    <xs:element name="ArrayOfCrawlMappingInternal" nillable="true"
type="tns:ArrayOfCrawlMappingInternal" />
    <xs:complexType name="CrawlMappingInternal">
        <xs:sequence>
            <xs:element minOccurs="0" name="source" nillable="true" type="xs:string" />
            <xs:element minOccurs="0" name="target" nillable="true" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
    <xs:element name="CrawlMappingInternal" nillable="true" type="tns:CrawlMappingInternal"
/>
    <xs:complexType name="ContentStateInternal">
        <xs:sequence>
            <xs:element xmlns:q3="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
minOccurs="0" name="activeDocuments" nillable="true" type="q3:ArrayOfstring" />
            <xs:element minOccurs="0" name="anchorContentSourceId" type="xs:int" />
            <xs:element xmlns:q4="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
minOccurs="0" name="clientCertificateNames" nillable="true" type="q4:ArrayOfstring" />
            <xs:element minOccurs="0" name="defaultGatheringAccount" nillable="true"
type="xs:string" />
            <xs:element xmlns:q5="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
minOccurs="0" name="listKnownLotusNotesServers" nillable="true" type="q5:ArrayOfstring" />
            <xs:element minOccurs="0" name="lotusNotesConfigured" type="xs:boolean" />
            <xs:element minOccurs="0" name="retryLimit" type="xs:int" />
        </xs:sequence>
    </xs:complexType>
    <xs:element name="ContentStateInternal" nillable="true" type="tns:ContentStateInternal"
/>
    <xs:complexType name="PropagationInternal">
        <xs:sequence>
            <xs:element minOccurs="0" name="propagationStatus" type="xs:int" />
            <xs:element minOccurs="0" name="type" type="xs:int" />
        </xs:sequence>
    </xs:complexType>
    <xs:element name="PropagationInternal" nillable="true" type="tns:PropagationInternal"
/>
</xs:schema>
<xs:schema xmlns:tns="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/2003/10/Serialization/Arrays"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
    <xs:complexType name="ArrayOfstring">
        <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="unbounded" name="string" nillable="true"
type="xs:string" />
        </xs:sequence>
    </xs:complexType>
    <xs:element name="ArrayOfstring" nillable="true" type="tns:ArrayOfstring" />
</xs:schema>
</wsdl:types>

```

```

    <wsdl:message
name="ISearchApplicationAdminWebService_ValidateScheduleTrigger_InputMessage">
    <wsdl:part name="parameters" element="tns:ValidateScheduleTrigger" />
</wsdl:message>
    <wsdl:message
name="ISearchApplicationAdminWebService_ValidateScheduleTrigger_OutputMessage">
    <wsdl:part name="parameters" element="tns:ValidateScheduleTriggerResponse" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_AddExtension_InputMessage">
    <wsdl:part name="parameters" element="tns:AddExtension" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_AddExtension_OutputMessage">
    <wsdl:part name="parameters" element="tns:AddExtensionResponse" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_RemoveExtension_InputMessage">
    <wsdl:part name="parameters" element="tns:RemoveExtension" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_RemoveExtension_OutputMessage">
    <wsdl:part name="parameters" element="tns:RemoveExtensionResponse" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_ClearExtensionList_InputMessage">
    <wsdl:part name="parameters" element="tns:ClearExtensionList" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_ClearExtensionList_OutputMessage">
    <wsdl:part name="parameters" element="tns:ClearExtensionListResponse" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_GetExtensionList_InputMessage">
    <wsdl:part name="parameters" element="tns:GetExtensionList" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_GetExtensionList_OutputMessage">
    <wsdl:part name="parameters" element="tns:GetExtensionListResponse" />
</wsdl:message>
    <wsdl:message
name="ISearchApplicationAdminWebService_SetIsExtensionIncludeList_InputMessage">
    <wsdl:part name="parameters" element="tns:SetIsExtensionIncludeList" />
</wsdl:message>
    <wsdl:message
name="ISearchApplicationAdminWebService_SetIsExtensionIncludeList_OutputMessage">
    <wsdl:part name="parameters" element="tns:SetIsExtensionIncludeListResponse" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_AddCrawlRule_InputMessage">
    <wsdl:part name="parameters" element="tns:AddCrawlRule" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_AddCrawlRule_OutputMessage">
    <wsdl:part name="parameters" element="tns:AddCrawlRuleResponse" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_AddAdvancedCrawlRule_InputMessage">
    <wsdl:part name="parameters" element="tns:AddAdvancedCrawlRule" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_AddAdvancedCrawlRule_OutputMessage">
    <wsdl:part name="parameters" element="tns:AddAdvancedCrawlRuleResponse" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_RemoveCrawlRule_InputMessage">
    <wsdl:part name="parameters" element="tns:RemoveCrawlRule" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_RemoveCrawlRule_OutputMessage">
    <wsdl:part name="parameters" element="tns:RemoveCrawlRuleResponse" />
</wsdl:message>
    <wsdl:message name="ISearchApplicationAdminWebService_GetCrawlRuleList_InputMessage">

```

```

    <wsdl:part name="parameters" element="tns:GetCrawlRuleList" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetCrawlRuleList_OutputMessage">
  <wsdl:part name="parameters" element="tns:GetCrawlRuleListResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_UpdateCrawlRule_InputMessage">
  <wsdl:part name="parameters" element="tns:UpdateCrawlRule" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_UpdateCrawlRule_OutputMessage">
  <wsdl:part name="parameters" element="tns:UpdateCrawlRuleResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_TestCrawlRule_InputMessage">
  <wsdl:part name="parameters" element="tns:TestCrawlRule" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_TestCrawlRule_OutputMessage">
  <wsdl:part name="parameters" element="tns:TestCrawlRuleResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_TestCrawlRules_InputMessage">
  <wsdl:part name="parameters" element="tns:TestCrawlRules" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_TestCrawlRules_OutputMessage">
  <wsdl:part name="parameters" element="tns:TestCrawlRulesResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_SetCrawlRulePriority_InputMessage">
  <wsdl:part name="parameters" element="tns:SetCrawlRulePriority" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_SetCrawlRulePriority_OutputMessage">
  <wsdl:part name="parameters" element="tns:SetCrawlRulePriorityResponse" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_SetCrawlRuleCredentials_InputMessage">
  <wsdl:part name="parameters" element="tns:SetCrawlRuleCredentials" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_SetCrawlRuleCredentials_OutputMessage">
  <wsdl:part name="parameters" element="tns:SetCrawlRuleCredentialsResponse" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_InputMessage">
  <wsdl:part name="parameters" element="tns:SetCrawlRuleCredentials2" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_OutputMessage">
  <wsdl:part name="parameters" element="tns:SetCrawlRuleCredentials2Response" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetContentSources_InputMessage">
  <wsdl:part name="parameters" element="tns:GetContentSources" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetContentSources_OutputMessage">
  <wsdl:part name="parameters" element="tns:GetContentSourcesResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_AddContentSource_InputMessage">
  <wsdl:part name="parameters" element="tns:AddContentSource" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_AddContentSource_OutputMessage">
  <wsdl:part name="parameters" element="tns:AddContentSourceResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_RemoveContentSource_InputMessage">
  <wsdl:part name="parameters" element="tns:RemoveContentSource" />

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```

</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_RemoveContentSource_OutputMessage">
  <wsdl:part name="parameters" element="tns:RemoveContentSourceResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetCrawlMappings_InputMessage">
  <wsdl:part name="parameters" element="tns:GetCrawlMappings" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetCrawlMappings_OutputMessage">
  <wsdl:part name="parameters" element="tns:GetCrawlMappingsResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_AddCrawlMapping_InputMessage">
  <wsdl:part name="parameters" element="tns:AddCrawlMapping" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_AddCrawlMapping_OutputMessage">
  <wsdl:part name="parameters" element="tns:AddCrawlMappingResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_RemoveCrawlMapping_InputMessage">
  <wsdl:part name="parameters" element="tns:RemoveCrawlMapping" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_RemoveCrawlMapping_OutputMessage">
  <wsdl:part name="parameters" element="tns:RemoveCrawlMappingResponse" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_InputMessage">
  <wsdl:part name="parameters" element="tns:ListKnownLotusNotesDatabases" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_OutputMessage">
  <wsdl:part name="parameters" element="tns:ListKnownLotusNotesDatabasesResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetConnectorProperty_InputMessage">
  <wsdl:part name="parameters" element="tns:GetConnectorProperty" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetConnectorProperty_OutputMessage">
  <wsdl:part name="parameters" element="tns:GetConnectorPropertyResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_SetConnectorProperty_InputMessage">
  <wsdl:part name="parameters" element="tns:SetConnectorProperty" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_SetConnectorProperty_OutputMessage">
  <wsdl:part name="parameters" element="tns:SetConnectorPropertyResponse" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_IncreaseRegistryVersion_InputMessage">
  <wsdl:part name="parameters" element="tns:IncreaseRegistryVersion" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_IncreaseRegistryVersion_OutputMessage">
  <wsdl:part name="parameters" element="tns:IncreaseRegistryVersionResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetVersion_InputMessage">
  <wsdl:part name="parameters" element="tns:GetVersion" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetVersion_OutputMessage">
  <wsdl:part name="parameters" element="tns:GetVersionResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetRegistryVersion_InputMessage">
  <wsdl:part name="parameters" element="tns:GetRegistryVersion" />
</wsdl:message>

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<wsdl:message name="ISearchApplicationAdminWebService_GetRegistryVersion_OutputMessage">
  <wsdl:part name="parameters" element="tns:GetRegistryVersionResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_IsCaseSensitiveURL_InputMessage">
  <wsdl:part name="parameters" element="tns:IsCaseSensitiveURL" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_IsCaseSensitiveURL_OutputMessage">
  <wsdl:part name="parameters" element="tns:IsCaseSensitiveURLResponse" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_InputMessage">
  <wsdl:part name="parameters" element="tns:WaitForInProgressAnchorCrawlToComplete" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_OutputMessage"
>
  <wsdl:part name="parameters" element="tns:WaitForInProgressAnchorCrawlToCompleteResponse"
/>
/>
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_IsAnchorCrawlIdle_InputMessage">
  <wsdl:part name="parameters" element="tns:IsAnchorCrawlIdle" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_IsAnchorCrawlIdle_OutputMessage">
  <wsdl:part name="parameters" element="tns:IsAnchorCrawlIdleResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_IncrementVersion_InputMessage">
  <wsdl:part name="parameters" element="tns:IncrementVersion" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_IncrementVersion_OutputMessage">
  <wsdl:part name="parameters" element="tns:IncrementVersionResponse" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_SetDefaultGatheringAccount_InputMessage">
  <wsdl:part name="parameters" element="tns:SetDefaultGatheringAccount" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_SetDefaultGatheringAccount_OutputMessage">
  <wsdl:part name="parameters" element="tns:SetDefaultGatheringAccountResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetContentState_InputMessage">
  <wsdl:part name="parameters" element="tns:GetContentState" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_GetContentState_OutputMessage">
  <wsdl:part name="parameters" element="tns:GetContentStateResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_SetRetryLimit_InputMessage">
  <wsdl:part name="parameters" element="tns:SetRetryLimit" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_SetRetryLimit_OutputMessage">
  <wsdl:part name="parameters" element="tns:SetRetryLimitResponse" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_SetContentSourcesMetadata_InputMessage">
  <wsdl:part name="parameters" element="tns:SetContentSourcesMetadata" />
</wsdl:message>
<wsdl:message
name="ISearchApplicationAdminWebService_SetContentSourcesMetadata_OutputMessage">
  <wsdl:part name="parameters" element="tns:SetContentSourcesMetadataResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_CatalogPauseStatus_InputMessage">

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    <wsdl:part name="parameters" element="tns:CatalogPauseStatus" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_CatalogPauseStatus_OutputMessage">
    <wsdl:part name="parameters" element="tns:CatalogPauseStatusResponse" />
  </wsdl:message>
  <wsdl:message
name="ISearchApplicationAdminWebService_IsCatalogPauseCompleted_InputMessage">
    <wsdl:part name="parameters" element="tns:IsCatalogPauseCompleted" />
  </wsdl:message>
  <wsdl:message
name="ISearchApplicationAdminWebService_IsCatalogPauseCompleted_OutputMessage">
    <wsdl:part name="parameters" element="tns:IsCatalogPauseCompletedResponse" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_StartRankingUpdate_InputMessage">
    <wsdl:part name="parameters" element="tns:StartRankingUpdate" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_StartRankingUpdate_OutputMessage">
    <wsdl:part name="parameters" element="tns:StartRankingUpdateResponse" />
  </wsdl:message>
  <wsdl:message
name="ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_InputMessage">
    <wsdl:part name="parameters" element="tns:IsDeleteCrawlInProgress" />
  </wsdl:message>
  <wsdl:message
name="ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_OutputMessage">
    <wsdl:part name="parameters" element="tns:IsDeleteCrawlInProgressResponse" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_RefreshContentSource_InputMessage">
    <wsdl:part name="parameters" element="tns:RefreshContentSource" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_RefreshContentSource_OutputMessage">
    <wsdl:part name="parameters" element="tns:RefreshContentSourceResponse" />
  </wsdl:message>
  <wsdl:message
name="ISearchApplicationAdminWebService_RefreshAnchorContentSource_InputMessage">
    <wsdl:part name="parameters" element="tns:RefreshAnchorContentSource" />
  </wsdl:message>
  <wsdl:message
name="ISearchApplicationAdminWebService_RefreshAnchorContentSource_OutputMessage">
    <wsdl:part name="parameters" element="tns:RefreshAnchorContentSourceResponse" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_EditContentSource_InputMessage">
    <wsdl:part name="parameters" element="tns>EditContentSource" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_EditContentSource_OutputMessage">
    <wsdl:part name="parameters" element="tns>EditContentSourceResponse" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_StartCrawl_InputMessage">
    <wsdl:part name="parameters" element="tns:StartCrawl" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_StartCrawl_OutputMessage">
    <wsdl:part name="parameters" element="tns:StartCrawlResponse" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_PauseCrawl_InputMessage">
    <wsdl:part name="parameters" element="tns:PauseCrawl" />
  </wsdl:message>
  <wsdl:message name="ISearchApplicationAdminWebService_PauseCrawl_OutputMessage">
    <wsdl:part name="parameters" element="tns:PauseCrawlResponse" />
  </wsdl:message>

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<wsdl:message name="ISearchApplicationAdminWebService_ResumeCrawl_InputMessage">
  <wsdl:part name="parameters" element="tns:ResumeCrawl" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_ResumeCrawl_OutputMessage">
  <wsdl:part name="parameters" element="tns:ResumeCrawlResponse" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_StopCrawl_InputMessage">
  <wsdl:part name="parameters" element="tns:StopCrawl" />
</wsdl:message>
<wsdl:message name="ISearchApplicationAdminWebService_StopCrawl_OutputMessage">
  <wsdl:part name="parameters" element="tns:StopCrawlResponse" />
</wsdl:message>
<wsdl:portType name="ISearchApplicationAdminWebService">
  <wsdl:operation name="ValidateScheduleTrigger">
    <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ValidateScheduleTrigger"
message="tns:ISearchApplicationAdminWebService_ValidateScheduleTrigger_InputMessage" />
    <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ValidateScheduleTriggerResp
onse" message="tns:ISearchApplicationAdminWebService_ValidateScheduleTrigger_OutputMessage"
/>
    </wsdl:operation>
    <wsdl:operation name="AddExtension">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddExtension"
message="tns:ISearchApplicationAdminWebService_AddExtension_InputMessage" />
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddExtensionResponse"
message="tns:ISearchApplicationAdminWebService_AddExtension_OutputMessage" />
      </wsdl:operation>
      <wsdl:operation name="RemoveExtension">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveExtension"
message="tns:ISearchApplicationAdminWebService_RemoveExtension_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveExtensionResponse"
message="tns:ISearchApplicationAdminWebService_RemoveExtension_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="ClearExtensionList">
          <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ClearExtensionList"
message="tns:ISearchApplicationAdminWebService_ClearExtensionList_InputMessage" />
          <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ClearExtensionListResponse"
message="tns:ISearchApplicationAdminWebService_ClearExtensionList_OutputMessage" />
          </wsdl:operation>
          <wsdl:operation name="GetExtensionList">
            <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetExtensionList"
message="tns:ISearchApplicationAdminWebService_GetExtensionList_InputMessage" />
            <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetExtensionListResponse"
message="tns:ISearchApplicationAdminWebService_GetExtensionList_OutputMessage" />
            </wsdl:operation>
            <wsdl:operation name="SetIsExtensionIncludeList">
              <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetIsExtensionIncludeList"
message="tns:ISearchApplicationAdminWebService_SetIsExtensionIncludeList_InputMessage" />
              <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetIsExtensionIncludeListRe

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sponse"
message="tns:ISearchApplicationAdminWebService_SetIsExtensionIncludeList_OutputMessage" />
  </wsdl:operation>
  <wsdl:operation name="AddCrawlRule">
    <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlRule"
message="tns:ISearchApplicationAdminWebService_AddCrawlRule_InputMessage" />
    <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlRuleResponse"
message="tns:ISearchApplicationAdminWebService_AddCrawlRule_OutputMessage" />
    </wsdl:operation>
    <wsdl:operation name="AddAdvancedCrawlRule">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRule"
message="tns:ISearchApplicationAdminWebService_AddAdvancedCrawlRule_InputMessage" />
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRuleResponse"
message="tns:ISearchApplicationAdminWebService_AddAdvancedCrawlRule_OutputMessage" />
      </wsdl:operation>
      <wsdl:operation name="RemoveCrawlRule">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlRule"
message="tns:ISearchApplicationAdminWebService_RemoveCrawlRule_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlRuleResponse"
message="tns:ISearchApplicationAdminWebService_RemoveCrawlRule_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="GetCrawlRuleList">
          <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleList"
message="tns:ISearchApplicationAdminWebService_GetCrawlRuleList_InputMessage" />
          <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleListResponse"
message="tns:ISearchApplicationAdminWebService_GetCrawlRuleList_OutputMessage" />
          </wsdl:operation>
          <wsdl:operation name="UpdateCrawlRule">
            <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRule"
message="tns:ISearchApplicationAdminWebService_UpdateCrawlRule_InputMessage" />
            <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRuleResponse"
message="tns:ISearchApplicationAdminWebService_UpdateCrawlRule_OutputMessage" />
            </wsdl:operation>
            <wsdl:operation name="TestCrawlRule">
              <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRule"
message="tns:ISearchApplicationAdminWebService_TestCrawlRule_InputMessage" />
              <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRuleResponse"
message="tns:ISearchApplicationAdminWebService_TestCrawlRule_OutputMessage" />
              </wsdl:operation>
              <wsdl:operation name="TestCrawlRules">
                <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRules"
message="tns:ISearchApplicationAdminWebService_TestCrawlRules_InputMessage" />
                <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRulesResponse"
message="tns:ISearchApplicationAdminWebService_TestCrawlRules_OutputMessage" />
                </wsdl:operation>
                <wsdl:operation name="SetCrawlRulePriority">
                  <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRulePriority"
message="tns:ISearchApplicationAdminWebService_SetCrawlRulePriority_InputMessage" />

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        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRulePriorityResponse"
message="tns:ISearchApplicationAdminWebService_SetCrawlRulePriority_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="SetCrawlRuleCredentials">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials"
message="tns:ISearchApplicationAdminWebService_SetCrawlRuleCredentials_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentialsResponse"
message="tns:ISearchApplicationAdminWebService_SetCrawlRuleCredentials_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="SetCrawlRuleCredentials2">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2"
message="tns:ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2Response"
message="tns:ISearchApplicationAdminWebService_SetCrawlRuleCredentials2_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="GetContentSources">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetContentSources"
message="tns:ISearchApplicationAdminWebService_GetContentSources_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetContentSourcesResponse"
message="tns:ISearchApplicationAdminWebService_GetContentSources_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="AddContentSource">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddContentSource"
message="tns:ISearchApplicationAdminWebService_AddContentSource_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddContentSourceResponse"
message="tns:ISearchApplicationAdminWebService_AddContentSource_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="RemoveContentSource">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveContentSource"
message="tns:ISearchApplicationAdminWebService_RemoveContentSource_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveContentSourceResponse"
message="tns:ISearchApplicationAdminWebService_RemoveContentSource_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="GetCrawlMappings">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlMappings"
message="tns:ISearchApplicationAdminWebService_GetCrawlMappings_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlMappingsResponse"
message="tns:ISearchApplicationAdminWebService_GetCrawlMappings_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="AddCrawlMapping">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlMapping"
message="tns:ISearchApplicationAdminWebService_AddCrawlMapping_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlMappingResponse"
message="tns:ISearchApplicationAdminWebService_AddCrawlMapping_OutputMessage" />
        </wsdl:operation>

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    <wsdl:operation name="RemoveCrawlMapping">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlMapping"
message="tns:ISearchApplicationAdminWebService_RemoveCrawlMapping_InputMessage" />
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlMappingResponse"
message="tns:ISearchApplicationAdminWebService_RemoveCrawlMapping_OutputMessage" />
    </wsdl:operation>
    <wsdl:operation name="ListKnownLotusNotesDatabases">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ListKnownLotusNotesDatabase
s" message="tns:ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_InputMessage"
/>
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ListKnownLotusNotesDatabase
sResponse"
message="tns:ISearchApplicationAdminWebService_ListKnownLotusNotesDatabases_OutputMessage" />
    </wsdl:operation>
    <wsdl:operation name="GetConnectorProperty">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetConnectorProperty"
message="tns:ISearchApplicationAdminWebService_GetConnectorProperty_InputMessage" />
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetConnectorPropertyRespons
e" message="tns:ISearchApplicationAdminWebService_GetConnectorProperty_OutputMessage" />
    </wsdl:operation>
    <wsdl:operation name="SetConnectorProperty">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetConnectorProperty"
message="tns:ISearchApplicationAdminWebService_SetConnectorProperty_InputMessage" />
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetConnectorPropertyRespons
e" message="tns:ISearchApplicationAdminWebService_SetConnectorProperty_OutputMessage" />
    </wsdl:operation>
    <wsdl:operation name="IncreaseRegistryVersion">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IncreaseRegistryVersion"
message="tns:ISearchApplicationAdminWebService_IncreaseRegistryVersion_InputMessage" />
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IncreaseRegistryVersionResp
onse" message="tns:ISearchApplicationAdminWebService_IncreaseRegistryVersion_OutputMessage"
/>
    </wsdl:operation>
    <wsdl:operation name="GetVersion">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetVersion"
message="tns:ISearchApplicationAdminWebService_GetVersion_InputMessage" />
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetVersionResponse"
message="tns:ISearchApplicationAdminWebService_GetVersion_OutputMessage" />
    </wsdl:operation>
    <wsdl:operation name="GetRegistryVersion">
      <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetRegistryVersion"
message="tns:ISearchApplicationAdminWebService_GetRegistryVersion_InputMessage" />
      <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetRegistryVersionResponse"
message="tns:ISearchApplicationAdminWebService_GetRegistryVersion_OutputMessage" />
    </wsdl:operation>
    <wsdl:operation name="IsCaseSensitiveURL">

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        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsCaseSensitiveURL"
message="tns:ISearchApplicationAdminWebService_IsCaseSensitiveURL_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsCaseSensitiveURLResponse"
message="tns:ISearchApplicationAdminWebService_IsCaseSensitiveURL_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="WaitForInProgressAnchorCrawlToComplete">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/WaitForInProgressAnchorCrawlToComplete"
message="tns:ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/WaitForInProgressAnchorCrawlToCompleteResponse"
message="tns:ISearchApplicationAdminWebService_WaitForInProgressAnchorCrawlToComplete_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="IsAnchorCrawlIdle">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsAnchorCrawlIdle"
message="tns:ISearchApplicationAdminWebService_IsAnchorCrawlIdle_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsAnchorCrawlIdleResponse"
message="tns:ISearchApplicationAdminWebService_IsAnchorCrawlIdle_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="IncrementVersion">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IncrementVersion"
message="tns:ISearchApplicationAdminWebService_IncrementVersion_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IncrementVersionResponse"
message="tns:ISearchApplicationAdminWebService_IncrementVersion_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="SetDefaultGatheringAccount">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetDefaultGatheringAccount"
message="tns:ISearchApplicationAdminWebService_SetDefaultGatheringAccount_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetDefaultGatheringAccountResponse"
message="tns:ISearchApplicationAdminWebService_SetDefaultGatheringAccount_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="GetContentState">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetContentState"
message="tns:ISearchApplicationAdminWebService_GetContentState_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/GetContentStateResponse"
message="tns:ISearchApplicationAdminWebService_GetContentState_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="SetRetryLimit">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetRetryLimit"
message="tns:ISearchApplicationAdminWebService_SetRetryLimit_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetRetryLimitResponse"
message="tns:ISearchApplicationAdminWebService_SetRetryLimit_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="SetContentSourcesMetadata">

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        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetContentSourcesMetadata"
message="tns:ISearchApplicationAdminWebService_SetContentSourcesMetadata_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/SetContentSourcesMetadataRe
sponse"
message="tns:ISearchApplicationAdminWebService_SetContentSourcesMetadata_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="CatalogPauseStatus">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/CatalogPauseStatus"
message="tns:ISearchApplicationAdminWebService_CatalogPauseStatus_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/CatalogPauseStatusResponse"
message="tns:ISearchApplicationAdminWebService_CatalogPauseStatus_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="IsCatalogPauseCompleted">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsCatalogPauseCompleted"
message="tns:ISearchApplicationAdminWebService_IsCatalogPauseCompleted_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsCatalogPauseCompletedResp
onse" message="tns:ISearchApplicationAdminWebService_IsCatalogPauseCompleted_OutputMessage"
/>
        </wsdl:operation>
        <wsdl:operation name="StartRankingUpdate">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StartRankingUpdate"
message="tns:ISearchApplicationAdminWebService_StartRankingUpdate_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StartRankingUpdateResponse"
message="tns:ISearchApplicationAdminWebService_StartRankingUpdate_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="IsDeleteCrawlInProgress">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsDeleteCrawlInProgress"
message="tns:ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/IsDeleteCrawlInProgressResp
onse" message="tns:ISearchApplicationAdminWebService_IsDeleteCrawlInProgress_OutputMessage"
/>
        </wsdl:operation>
        <wsdl:operation name="RefreshContentSource">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RefreshContentSource"
message="tns:ISearchApplicationAdminWebService_RefreshContentSource_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RefreshContentSourceRespons
e" message="tns:ISearchApplicationAdminWebService_RefreshContentSource_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="RefreshAnchorContentSource">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RefreshAnchorContentSource"
message="tns:ISearchApplicationAdminWebService_RefreshAnchorContentSource_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/RefreshAnchorContentSourceR
esponse"
message="tns:ISearchApplicationAdminWebService_RefreshAnchorContentSource_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="EditContentSource">

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        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/EditContentSource"
message="tns:ISearchApplicationAdminWebService_EditContentSource_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/EditContentSourceResponse"
message="tns:ISearchApplicationAdminWebService_EditContentSource_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="StartCrawl">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StartCrawl"
message="tns:ISearchApplicationAdminWebService_StartCrawl_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StartCrawlResponse"
message="tns:ISearchApplicationAdminWebService_StartCrawl_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="PauseCrawl">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/PauseCrawl"
message="tns:ISearchApplicationAdminWebService_PauseCrawl_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/PauseCrawlResponse"
message="tns:ISearchApplicationAdminWebService_PauseCrawl_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="ResumeCrawl">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ResumeCrawl"
message="tns:ISearchApplicationAdminWebService_ResumeCrawl_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/ResumeCrawlResponse"
message="tns:ISearchApplicationAdminWebService_ResumeCrawl_OutputMessage" />
        </wsdl:operation>
        <wsdl:operation name="StopCrawl">
        <wsdl:input
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StopCrawl"
message="tns:ISearchApplicationAdminWebService_StopCrawl_InputMessage" />
        <wsdl:output
wsam:Action="http://tempuri.org/ISearchApplicationAdminWebService/StopCrawlResponse"
message="tns:ISearchApplicationAdminWebService_StopCrawl_OutputMessage" />
        </wsdl:operation>
    </wsdl:portType>
    <wsdl:binding name="CustomBinding_ISearchApplicationAdminWebService"
type="tns:ISearchApplicationAdminWebService">
        <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
        <wsdl:operation name="ValidateScheduleTrigger">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/ValidateScheduleTrigger"
style="document" />
            <wsdl:input>
                <soap:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="AddExtension">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/AddExtension"
style="document" />
            <wsdl:input>
                <soap:body use="literal" />
            </wsdl:input>
        </wsdl:operation>
    </wsdl:binding>

```

```

        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="RemoveExtension">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/RemoveExtension"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ClearExtensionList">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/ClearExtensionList"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetExtensionList">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/GetExtensionList"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="SetIsExtensionIncludeList">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/SetIsExtensionIncludeList"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="AddCrawlRule">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlRule"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="AddAdvancedCrawlRule">

```

```

    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/AddAdvancedCrawlRule"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="RemoveCrawlRule">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlRule"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetCrawlRuleList">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlRuleList"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="UpdateCrawlRule">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/UpdateCrawlRule"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="TestCrawlRule">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRule"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="TestCrawlRules">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/TestCrawlRules"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />

```

```

    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="SetCrawlRulePriority">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRulePriority"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="SetCrawlRuleCredentials">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="SetCrawlRuleCredentials2">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/SetCrawlRuleCredentials2"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetContentSources">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/GetContentSources"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="AddContentSource">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/AddContentSource"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>

```

```

    <wsdl:operation name="RemoveContentSource">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/RemoveContentSource"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetCrawlMappings">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/GetCrawlMappings"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="AddCrawlMapping">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/AddCrawlMapping"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="RemoveCrawlMapping">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/RemoveCrawlMapping"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ListKnownLotusNotesDatabases">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/ListKnownLotusNotesDatabases"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetConnectorProperty">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/GetConnectorProperty"
style="document" />
      <wsdl:input>

```

```

        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="SetConnectorProperty">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/SetConnectorProperty"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="IncreaseRegistryVersion">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/IncreaseRegistryVersion"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetVersion">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/GetVersion" style="document"
/>
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetRegistryVersion">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/GetRegistryVersion"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="IsCaseSensitiveURL">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/IsCaseSensitiveURL"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>

```

```

</wsdl:operation>
<wsdl:operation name="WaitForInProgressAnchorCrawlToComplete">
  <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/WaitForInProgressAnchorCrawl
ToComplete" style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="IsAnchorCrawlIdle">
  <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/IsAnchorCrawlIdle"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="IncrementVersion">
  <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/IncrementVersion"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="SetDefaultGatheringAccount">
  <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/SetDefaultGatheringAccount"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="GetContentState">
  <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/GetContentState"
style="document" />
  <wsdl:input>
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
<wsdl:operation name="SetRetryLimit">
  <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/SetRetryLimit"
style="document" />

```

```

        <wsdl:input>
          <soap:body use="literal" />
        </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="SetContentSourcesMetadata">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/SetContentSourcesMetadata"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CatalogPauseStatus">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/CatalogPauseStatus"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="IsCatalogPauseCompleted">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/IsCatalogPauseCompleted"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="StartRankingUpdate">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/StartRankingUpdate"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="IsDeleteCrawlInProgress">
      <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/IsDeleteCrawlInProgress"
style="document" />
      <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
  </wsdl:operations>
</wsdl:binding>
</wsdl:service>

```



```

        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="RefreshContentSource">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/RefreshContentSource"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="RefreshAnchorContentSource">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/RefreshAnchorContentSource"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="EditContentSource">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/EditContentSource"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="StartCrawl">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/StartCrawl" style="document"
/>
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="PauseCrawl">
        <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/PauseCrawl" style="document"
/>
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ResumeCrawl">

```

```
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/ResumeCrawl"
style="document" />
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="StopCrawl">
    <soap:operation
soapAction="http://tempuri.org/ISearchApplicationAdminWebService/StopCrawl" style="document"
/>
    <wsdl:input>
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
</wsdl:binding>
</wsdl:definitions>
```

7 Appendix B: Product Behavior

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

- Microsoft® SharePoint® Foundation 2010

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

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

[<1> Section 2.2.4.1:](#) For example, start address is an important item in Microsoft® Office SharePoint® Server Search Beta 1

[<2> Section 3.1.1.3:](#) Office SharePoint Server 2007

[<3> Section 3.1.4.2.2.1:](#) Office SharePoint Server 2007

[<4> Section 3.1.4.10.3.3:](#) Office SharePoint Server 2007

[<5> Section 3.1.4.27:](#) Microsoft® Office SharePoint® Server 2010 recreates the default content source after a delay of at most one hour

8 Change Tracking

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

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