IBM SPSS Collaboration and Deployment Services 5 Subscription Repository Service Developer's Guide

Note: Before using this information and the product it supports, read the general information under Notices on p. 130.

This edition applies to IBM SPSS Collaboration and Deployment Services 5 and to all subsequent releases and modifications until otherwise indicated in new editions.

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Preface

This guide is intended for developers working with the web services available in IBM® SPSS® Collaboration and Deployment Services. Users should have experience writing web service client applications and are assumed to have knowledge of IBM Corp. applications, Java and .NET development, data modeling concepts, and related technologies.

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1

Introduction to web services

What are web services?

At a high level, a **web service** is a set of functionality distributed across a network (LAN or the Internet) using a common communication protocol. The web service serves as an intermediary between an application and its clients, providing both a standardized information structure and a standardized communication protocol for interaction between the two. Where other methods of distributed application architecture rely on a single programming language being used on both the application and its clients, a web service allows the use of loosely coupled services between non-homogenous platforms and languages. This provides a non-architecture-specific approach allowing, for example, Java services to communicate with C# clients, or vice-versa.

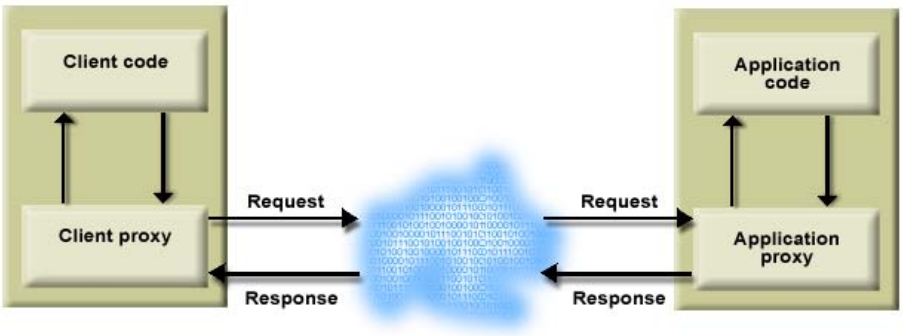
Advantages to implementing application functionality as web services include the following:

- Software written in different languages (Java or C#) running on different platforms (UNIX or Windows) can exchange services and data
- Application functionality can be accessed by a variety of clients. For example, both a thin-client interface and a rich-client interface can take advantage of the web service operations.
- Updates to the service are immediately available to all service clients

Web service system architecture

Web services are deployed and made publicly available using an application server, such as JBoss Application Server, WebSphere®, or Oracle WebLogic Server. The published web services are hosted by this application server to handle application requests, access permissions, and process load. A high-level architecture of how web services are implemented is displayed in the following diagram.

Figure 1-1
Web service architecture



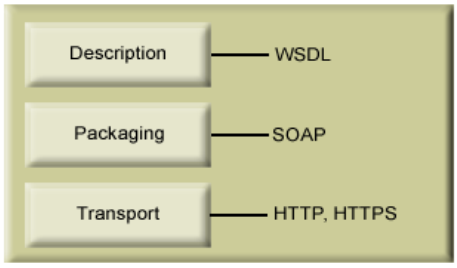
The client code supplies input to an operation offered by a proxy class. The proxy class generates a request containing a standardized representation of the input and sends it across the network to the application. A proxy class on the server receives the request and unmarshals the contents into objects for processing by the application. Upon completing the operation, the application supplies a proxy with the output. The proxy creates a standardized representation of that output and sends the response back to the client. The client proxy unmarshals the response into native objects for subsequent processing by the client code.

Standardizing the format of the information passing between the client and the application allows a client written in one programming language to communicate with an application written in another. The proxy classes, which are automatically generated from a web service description by a variety of toolkits, handle the translation between native programming objects and the standardized representation. For more information, see the topic Proxies on p. 6.

Web service protocol stack

A web service implementation depends on technologies often organized in a layered stack. The implementation itself defines a standard protocol for each technology layer, with each layer depending on the layers appearing below it in the stack.

Figure 1-2
Web service protocol stack



Beginning at the bottom of the stack, the Transport layer defines the technology standards for communication, allowing information to move across the network. HTTP or HTTPS are often used as the standard for the transport layer.

The Packaging layer rests on top of Transport and defines the standard for structuring information for transport across the network. The SOAP format is commonly used, which offers an XML structure for packaging the data. For more information, see the topic Simple Object Access Protocol on p. 3.

The topmost layer is Description and identifies the standards used by the layers below it in the stack, as well as providing the definition of the interface available for client use. The most common means of conveying this information is through the use of a WSDL file. For more information, see the topic Web Service Description Language on p. 3.

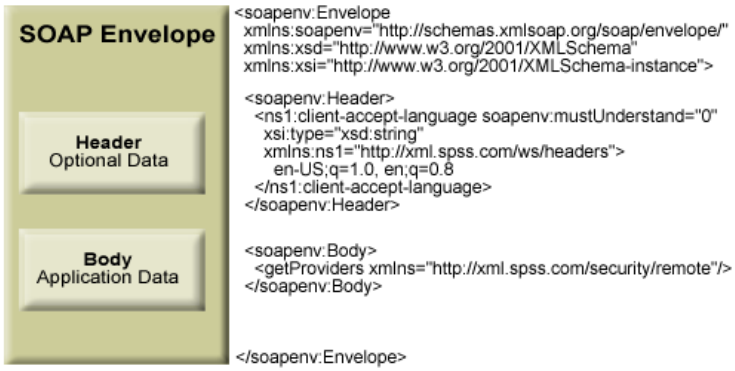
Simple Object Access Protocol

The Simple Object Access Protocol (SOAP) is a way to pass information between applications in an XML format. SOAP messages are transmitted from the sending application to the receiving application, typically over an HTTP session. The actual SOAP message is made up of the Envelope element, which contains a Body element and an optional Header element.

- **Envelope.** This mandatory element is the root of the SOAP message, identifying the transmitted XML as being a SOAP packet. An envelope contains a body section and an optional header section.
- **Header.** This optional element provides an extension mechanism indicating processing information for the message. For example, if the operation using the message requires security credentials, those credentials should be part of the envelope header.
- **Body.** This element contains the message payload, the raw data being transmitted between the sending and receiving applications. The body itself may consist of multiple child elements, with an XML schema typically defining the structure of this data.

A SOAP packet and the corresponding XML is structured in the following way:

Figure 1-3
An example SOAP packet



Web Service Description Language

A Web Service Description Language (WSDL) file provides an XML-based map of what functionality the published web service allows, separating the implementation in the service from the interface. The WSDL defines the following:

- The access location of the web service
- Operations the web service exposes
- Parameters the exposed operations accept
- Any request or response messages associated with the operations

The WSDL provides the information necessary to generate a client-side proxy in the desired programming language.

In accordance with the WSDL specification (*http://www.w3.org/TR/wsdl*) adopted by the World Wide Web Consortium, information in the WSDL is organized into the following sections:

- **Types.** Content definitions for web service operation input and output. For more information, see the topic Types on p. 4.
- **Messages.** Input and output definitions for the web service operations. For more information, see the topic Messages on p. 5.
- **PortTypes.** Groups of operations offered by the web service. For more information, see the topic Port types on p. 5.
- **Bindings.** Protocols and formats for the web service operations. For more information, see the topic Bindings on p. 5.
- **Services.** Endpoints at which the web service functionality can be accessed. For more information, see the topic Services on p. 6.

Types

The types element of a WSDL file contains the data type definitions employed by messages processed by the web service. These definitions use XML to organize the information relevant to the type element being defined. Consider the following type definitions:

```
<wsdl:types>
 <schema targetNamespace="http://xml.spss.com/security/remote"
  xmlns="http://www.w3.org/2001/XMLSchema">
  <element name="getProviders">
   <complexType />
  </element>
  <element name="getProvidersResponse">
   <complexType>
    <sequence>
     <element name="providerInfo[unbounded]" type="tns1:providerInfo" />
    </sequence>
   </complexType>
  </element>
 </schema>
</wsdl:types>
```

This section defines two elements, *getProviders* and *getProvidersResponse*. The former is an empty element. The latter contains a sequence of *providerInfo* child elements. These children are all of the *providerInfo* type, which is defined elsewhere.

In practice, the WSDL file typically references type element definitions found in an external XML schema. For instance, the following definition uses *security-remote.xsd* to define type elements.

```
<wsdl:types>
 <xs:schema>
  <xs:import namespace="http://xml.spss.com/security/remote"
   schemaLocation="security-remote.xsd"/>
 </xs:schema>
</wsdl:types>
```

Messages

The message elements of a WSDL file defines the input or output parameters for operations available in the web service. Each message can consist of one or more parts, with the parts similar to the parameters of a function call in a traditional programming language. Consider the following two message definitions:

```
<wsdl:message name="getProvidersResponse">
 <wsdl:part element="tns2:getProvidersResponse" name="parameters" />
</wsdl:message>
<wsdl:message name="getProvidersRequest">
 <wsdl:part element="tns2:getProviders" name="parameters" />
</wsdl:message>
```

The *getProvidersResponse* message contains a single part, corresponding to the *getProvidersResponse* element defined in the types section of the WSDL file. Similarly, the *getProvidersRequest* message also contains a single part, as defined by the *getProviders* element in the types section. For more information, see the topic Types on p. 4.

Port types

The portType element of a WSDL file defines the actual interface to the web service. A port type is simply a group of related operations and is comparable to a function library, module, or class in a traditional programming language. The definition specifies the parameters for the operations, as well as any values returned. The parameters and return values correspond to messages defined elsewhere in the WSDL file. Consider the following port type definition:

```
<wsdl:portType name="ProviderInformation">
 <wsdl:operation name="getProviders">
  <wsdl:input message="impl:getProvidersRequest" name="getProvidersRequest" />
  <wsdl:output message="impl:getProvidersResponse" name="getProvidersResponse" />
 </wsdl:operation>
</wsdl:portType>
```

The *ProviderInformation* port type consists of a single operation, *getProviders*. Input to this operation corresponds to the *getProvidersRequest* message. The operation returns information in the structure defined by the *getProvidersResponse* message. For more information, see the topic Messages on p. 5.

Bindings

The binding element of a WSDL file binds the interface defined by the port type to transport and messaging protocols. Consider the following binding definition:

```
<wsdl:binding name="ProviderInformationSoapBinding" type="impl:ProviderInformation">
 <wsdlsoap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http" />
 <wsdl:operation name="getProviders">
  <wsdlsoap:operation soapAction="" />
  <wsdl:input name="getProvidersRequest">
   <wsdlsoap:body namespace="http://xml.spss.com/security/remote" use="literal" />
```

```
  </wsdl:input>
  <wsdl:output name="getProvidersResponse">
   <wsdlsoap:body namespace="http://xml.spss.com/security" use="literal" />
  </wsdl:output>
 </wsdl:operation>
</wsdl:binding>
```

In this case, the transport attribute of the wsdlsoap:binding element defines HTTP as the transport protocol. Both the *getProviders* and *getProvidersReponse* operations in the interface are bound to the SOAP messaging protocol.

Services

The service element of a WSDL file identifies the network location at which the service interface can be accessed. Consider the following service definition:

```
<wsdl:service name="ProviderInformationService">
 <wsdl:port binding="impl:ProviderInformationSoapBinding" name="ProviderInformation">
  <wsdlsoap:address location="http://pes_server:8080/security-ws/services/ProviderInformation" />
 </wsdl:port>
</wsdl:service>
```

In this example, the operations comprising the *ProviderInformation* port type can be accessed at:

http://pes_server:8080/security-ws/services/ProviderInformation

Proxies

Proxies serve as bridges between the client and the web service. A client-side proxy marshals the input objects into a standardized representation which is sent to the web service. A server-side proxy unmarshals the information into input objects for the service operations. The results of the operation are marshalled into standard representations and returned to the client. The client proxy unmarshals the response information into objects for any additional processing by the client.

Creating a proxy is the first step when developing a web service client; the proxy is the translation-unit between your application and the web service the application is using. Fortunately, many development environments include tools for automatically generating the client proxy from the web service WSDL file, allowing the client developer to focus on the client application code instead of transport and packaging protocols.

The proxy classes generated from a WSDL file depend on the tool used. For Java, the *wsdl2java* tool, which is part of the Apache Axis project, can be used. This tool produces a Java class for each type in the WSDL. Each port type results in a Java interface. A binding creates a stub class, and a WSDL service yields a service interface with a locator implementation. These generated classes and interfaces can be called directly from a client application written in Java to access the web service functionality.

An alternative Java proxy tool is *wsimport*, which is part of JAX-WS. The general structure of the generated classes is similar to that created by the Axis tool, but there are some differences. For example, instead of using arrays for input fields and returned items, the code generated from

the *wsimport* tool uses List collections. In addition, if an input type matches an output type for a method, the *wsimport* tool uses a Holder class for the parameter.

In contrast, on the .NET platform, the *wsdl.exe* tool is often used to generate a web service proxy. This tool creates a single source file in a specified language containing the proxy class. This class includes both synchronous and asynchronous methods for each operation defined in the WSDL. For example, the web service operation *getProviders* results in the methods *getProviders*, *getProvidersBegin*, and *getProvidersEnd*. The latter two can be used for asynchronous processing.

A variety of other tools exist for other programming languages. For details, consult the documentation for those tools. In each case, the tool creates native programming constructs that permit leveraging a web service regardless of the service implementation language.

Chapter
2

Subscription Repository Service overview

The Subscription Repository Service provides a general facility for sending event notifications to subscribers. Components supplying events that can trigger notifications use the service to register the events and their properties in IBM® SPSS® Collaboration and Deployment Services. Clients can query the IBM® SPSS® Collaboration and Deployment Services Repository to discover the properties that they can expect to be contained in events of a certain type, and can write well-formed subscription expressions to match events in which they are interested. Subscribers subscribe to the events of interest, having the notification messages sent to any defined destinations.

Accessing the Subscription Repository Service

To access the functionality offered by the Subscription Repository Service, create a client application using the proxy classes generated by your preferred web service tool. The endpoint for the service is:

http://<host-name>:<port-number>/notification/services/SubscriptionRepository

The value of <*host-name*> corresponds to the machine on which IBM® SPSS® Collaboration and Deployment Services Repository is installed, with <*port-number*> indicating the port number on which it is running. To access the WSDL file for the service, append *?wsdl* to the service endpoint.

For example, if IBM SPSS Collaboration and Deployment Services Repository is running on port 80 of the machine *cads_server*, the WSDL file can be accessed using the path:

http://cads_server:80/notification/services/SubscriptionRepository?wsdl

Calling Subscription Repository Service operations

Clients access the operations offered by the web service using a stub for the service. The following is an example of how to acquire a stub in Java through Axis defined methods:

```
String context = "/notification/services/SubscriptionRepository";
URL url = new URL("http", "cads_server", 80, context);
SubscriptionRepositoryService service = new SubscriptionRepositoryServiceLocator();
stub = service.getSubscriptionRepository(url);
```

The service operations can be called directly from the stub, such as:

```
stub.createSubscription(subscriptionSpec);
```

Chapter
3

Subscription repository concepts

The Subscription Repository Service relies on the IBM® SPSS® Collaboration and Deployment Services Repository as both an event type repository and as a subscription repository. The event type repository stores information about the kinds of filterable data that named events provide to consumers, acting as a common reference so that the events transmitted by suppliers can contain the right properties to match against subscriptions based on expressions using those property names. The subscription repository, on the other hand, stores information about the actual subscribers, subscriptions, and notification destinations.

Notification domains

Notification domains provide a classification scheme for events that can trigger notifications. Each domain represents a particular application or industry in which an event type is defined. For example, IBM® SPSS® Collaboration and Deployment Services includes the *PRMS* domain for job events and the *Repository* domain for repository object events. Each domain contains a set of event types. The Subscription Repository Service includes operations for adding, retrieving, updating, and deleting notification domains.

Event types

An event type represents a named system occurrence, such as the completion of a job, that can trigger the sending of a notification. Within the IBM® SPSS® Collaboration and Deployment Services Repository, event types are organized into notification domains to avoid naming conflicts. As a result, each event type is characterized by its domain name and its type name. In IBM® SPSS® Collaboration and Deployment Services, the *PRMS* notification domain includes event types for the completion of jobs and job steps. The *Repository* notification domain, on the other hand, includes event types for changes in IBM SPSS Collaboration and Deployment Services Repository folders and files.

An event type defines zero or more properties on which a subscription can be based. Each property definition consists of a property name and a type code that identifies the type of data stored in the property. Valid type codes include *boolean*, *string*, *long*, *double*, *date*, *time*, *timestamp*, *duration*, *object*, *array*, and *ecma262*. The "PRMS domain event type properties" table identifies the properties available for the event types in the *PRMS* notification domain. Properties designated as *filterable* can be used in filter expressions for subscription selectors. For more information, see the topic Subscription selectors on p. 12.

Table 3-1
PRMS domain event type properties

Property	Type Code	Filterable	Description	Event Type
JobName	string	No	Name of a job	Completion

Property	Type Code	Filterable	Description	Event Type
JobID	string	Yes	Internal identifier for a job	Completion
JobStart	timestamp	No	Time at which a job begins execution	Completion
JobEnd	timestamp	No	Time at which a job completes execution	Completion
JobSuccess	boolean	Yes	Indicator of whether or not a job successfully completes	Completion
JobStatusURL	string	No	URL at which the job status can be accessed	Completion
JobStepName	string	No	Name of a job step	JobStepCompletion
JobStepID	string	Yes	Internal identifier for a job step	JobStepCompletion
JobStepExecutionID	string	Yes	Unique internal identifier of the job step execution	JobStepCompletion
JobStepStart	timestamp	No	Time at which a job step begins execution	JobStepCompletion
JobStepEnd	timestamp	No	Time at which a job step completes execution	JobStepCompletion
JobStepSuccess	boolean	Yes	Indicator of whether or not a job step successfully completes	JobStepCompletion
JobStepCompletionCode	long	No	The return code from the job step process. A value of 0 indicates success.	JobStepCompletion
JobStepStatusURL	string	No	URL at which the job step status can be accessed	JobStepCompletion
Attachments	boolean	Yes	Indicator of whether or not the notification includes attachments	JobStepCompletion
JobStepArtifacts	array	No	List of results produced by a job step	JobStepCompletion

For example, a notification could be created for job completion indicating whether or not the job succeeded. The content of the notification could include the job name, ID, initiation time, completion time, and a URL for the status.

The "Repository domain event type properties" table identifies the properties available for the event types in the *Repository* notification domain.

Table 3-2
Repository domain event type properties

Property	Type Code	Filterable	Description	Event Type(s)
PathIdentifiers	string	No	Colon-delimited list of path identifiers of the resource	ResourceEvent, FolderEvent, FolderContentEvent, FileEvent

Property	Type Code	Filterable	Description	Event Type(s)
ResourceSpssCrUrl	string	No	The repository URL (spsscr:) of the resource	ResourceEvent, FolderEvent, FolderContentEvent, FileEvent
ResourcePath	string	No	Repository path of the resource	ResourceEvent, FolderEvent, FolderContentEvent, FileEvent
ResourceID	string	Yes	Identifier of the resource	ResourceEvent, FolderEvent, FolderContentEvent, FileEvent
ActionType	string	Yes	Action triggering the notification, such as *new version of a file*	ResourceEvent, FolderEvent, FolderContentEvent, FileEvent
ResourceHttpUrl	string	No	HTTP URL of the resource	ResourceEvent, FolderEvent, FolderContentEvent, FileEvent
ResourceName	string	No	Name of the resource	ResourceEvent, FolderEvent, FolderContentEvent, FileEvent
ChildHttpUrl	string	No	HTTP URL for the child resource for the folder event	FolderEvent, FolderContentEvent
ChildSpssCrUrl	string	No	The repository URL (spsscr:) for the child resource for the folder event	FolderEvent, FolderContentEvent
ChildPath	string	No	Path of the child resource for the folder event	FolderEvent, FolderContentEvent
ChildName	string	No	Name of the child resource for the folder event	FolderEvent, FolderContentEvent
MimeType	string	Yes	MIME type of the file resource in the folder	FolderContentEvent
Attachments	boolean	Yes	Indicator of whether or not the content of the updated file resource in the folder should be sent as a binary attachment.	FolderContentEvent
MimeType	string	Yes	MIME type of the file	FileEvent
Attachments	boolean	Yes	Indicator of whether or not the file content should be sent as a binary attachment	FileEvent

The Subscription Repository Service includes operations for adding, retrieving, updating, and deleting event types.

Subscription selectors

Subscriptions typically share a common structure. For example, several users might need a notification if a scoring job fails. Rather than performing an individual query for each user, the Subscription Repository Service uses subscription selectors to provide a parameterized filtering mechanism for subscriptions. For example, consider the following query:

```
JobName='Scoring' and CompletionStatus='Failed'
```

This expression matches only the job named *Scoring* when the status is *Failed*. Alternatively, the query can be parameterized as:

```
JobName='$JobName' and CompletionStatus='$CompletionStatus'
```

where *$<JobName>* and *$<CompletionStatus>* serve as placeholders for the actual property values. The parameterized query can be used for all job names and completion status values.

A subscription selector consists of a name and the filter expression used for matching an event with a subscription. Filter expressions can include the following items:

- Comparison operators: ==, !=, <, <=, >, >=
- Boolean connectors: and, or
- Property names for boolean, long, double, string, date, time, and timestamp properties defined for the event type
- Numeric and string constants
- Grouping operators

In the absence of grouping operators, the order of precedence for the comparison operators and boolean connectors is as shown above, with comparisons performed before connections. Properties used in expressions correspond to those defined for the event type triggering the notification event. For more information, see the topic Event types on p. 9. Strings in filtering expressions should be single quoted, with two consecutive single quotes within a string representing a single quote.

Typically, an application includes only a few subscription selectors. Individual subscribers supply values to use for the placeholders in the filtering expressions of the selectors to customize the subscription. The "IBM SPSS Collaboration and Deployment Services subscription selectors" table lists subscription selectors available in IBM® SPSS® Collaboration and Deployment Services.

Table 3-3
IBM SPSS Collaboration and Deployment Services subscription selectors

Name	Filter Expression
prms_completion	JobSuccess==true
prms_jobid_completion	JobID==‘JobID’ && JobSuccess==true
prms_jobstep_completion_success	JobStepID==‘JobStepID’ && JobStepSuccess==true && Attachments=true
prms_jobstep_completion_failure	JobStepID==‘JobStepID’ && JobStepSuccess==false && Attachments=true
selector_folder	ResourceID rlike ‘${ResourceID}’

Name	Filter Expression
selector_folder_link	ResourceID rlike '${ResourceID}' && Attachments==false && MimeType like '${MimeType}'
selector_folder_attachment	ResourceID rlike '${ResourceID}' && Attachments==true && MimeType like '${MimeType}'
selector_file_link	ResourceID=='${ResourceID}' && Attachments==false
selector_file_attachment	ResourceID=='${ResourceID}' && Attachments==true

Property values specified for a subscription selector filtering expression serve as default values, and may be overridden by specific values supplied by the subscription using the selector.

The service generates an internal compiled version for each filter expression. In the compiled expression, the original property names are appended with a dollar sign and an integer indicating the order of appearance of the property in the filter expression. This notation allows for proper processing of expressions that contain the same property multiple times. For example, the filter expression:

```
(JobName='Modeling' and CompletionStatus='Failed') or
(JobName='Scoring' and NumRecord<1000000)
```

yields a complied expression of:

```
(JobName$0='${JobName}' and CompletionStatus$0='${CompletionStatus}') or
(JobName$1='${JobName}' and NumRecord$0<${NumRecord})
```

The compiled property names should be used when specifying values in subscriptions.

In addition to content based subscription selectors based on filter expressions, the Subscription Repository Service also allows subject based selectors. In this case, notification events are classified by groups or subjects and can be filtered only by their group. The system publishes an event using the corresponding item's category as its group name, and subscribers define the groups in which they are interested. Subject based subscriptions are defined only by the notification domains and event types.

The Subscription Repository Service includes operations for adding, retrieving, updating, and deleting subscription selectors.

Subscriptions

Typically, one subscription selector is associated with a large number of subscriptions. The subscriptions provide the specific property values used in the parameterized filter expression of the subscription selector. For example, the subscription selector contains the generic expression:

```
JobID = ${JobID}
```

The subscription provides a concrete value for the property placeholder, such as:

```
JobID = 0a0a4aac0161f10f0000010d8e63c9798ebd
```

A subscription consists of the following:

- A reference to a subscription selector.
- A list of values for use by the selector. Names for the property values correspond to the names used in the compiled filter expressions.

A subscription may also include an optional identifier for an object associated with the subscription, referred to as a *subscribable* object, such as a file. The subscribable object acts as the owner of the subscription. If the subscribable object is deleted from the system, the associtated subscriptions are also removed.

The Subscription Repository Service includes operations for adding, retrieving, updating, and deleting subscriptions.

Subscribers

A subscriber represents the person receiving the notification message. The definition of a subscriber consists of the specification of the principal identifier for the person, which can be obtained from the Directory Information web service. Typically, a client application allows the subscriber to manage delivery devices, join shared subscriptions, or create individual subscriptions.

The Subscription Repository Service includes operations for adding, retrieving, updating, and deleting subscribers.

Distribution lists

Distribution lists serve as named containers for multiple subscribers. Adding a distribution list to a set of notification recipients is equivalent to adding each member of the distribution list individually. However, the ability to reference multiple subscribers through one list simplifies subscription management tasks. For example, instead of unsubscribing each member of the list, all list members can be removed from a notification simply by unsubscribing the list.

The Subscription Repository Service includes operations for adding, retrieving, updating, and deleting distribution lists. In addition, operations are available for adding subscribers to and removing subscribers from the lists.

Delivery devices

A delivery device represents any device that can receive notifications. The definition of a delivery device consists of a protocol type and a delivery address. The Subscription Repository Service currently supports the SMTP and RSS/ATOM syndication protocols. For the SMTP protocol, the device address should be a valid email address. For syndication, the device address is the URL for the syndicated feed. The Subscription Repository Service includes operations for adding, retrieving, updating, and deleting delivery devices.

A subscriber can have any number of delivery devices. For a given subscriber, when a notification event occurs, the system attempts to deliver notification messages to all delivery devices.

Content formatters

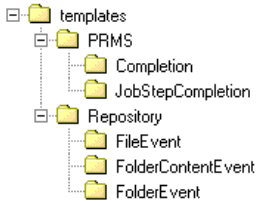
Content formatters determine the structure and content of notification messages through the use of message templates. A template contains some fixed text and one or more content variables that are replaced with relevant information derived from the event triggering the notification. The content formatter defines the protocol for the notification and the name of the template file. Currently, the only supported protocol is SMTP. As a result, the template corresponds to an email message.

When processing a notification, for each content formatter, the Subscription Repository Service searches the template directory tree for the named template matching the event type, locale, and protocol type in the following order:

<base-directory>/domain/event-type/locale/protocol
<base-directory>/domain/event-type/locale
<base-directory>/domain/event-type/protocol
<base-directory>/domain/event-type
<base-directory>/domain/locale/protocol
<base-directory>/domain/locale
<base-directory>/domain/protocol
<base-directory>/domain
<base-directory>/locale
<base-directory>/protocol
<base-directory>/

For example, the event types in the *PRMS* and *Repository* notification domains correspond to the directory tree in the "IBM SPSS Collaboration and Deployment Services template directories" figure.

Figure 3-1
IBM SPSS Collaboration and Deployment Services template directories



For IBM® SPSS® Collaboration and Deployment Services, the service finds the templates in the *<base-directory>/domain/event-type* directories.

The Subscription Repository Service includes operations for adding, retrieving, updating, and deleting content formatters.

Notification message template structure

Notification templates transform event information into notification messages using Apache **Velocity** Template Language.

Velocity template structure

A Velocity template has a **.vm* file extension. The template generates a message using the = operator to assign the /mimeMessage/messageSubject, /mimeMessage/messageContent, and /mimeMessage/messageProperty values that are subsequently parsed by the e-mail processor. The following sample template generates a simple, generic e-mail message indicating the success of the corresponding job.

```
/mimeMessage/messageSubject=Job Completion
/mimeMessage/messageContent[text/plain;charset=utf-8]=The job completed successfully.
```

The following figure displays the resulting e-mail.

Figure 3-2
Generic notification message

For more information about Velocity templates, see the Apache Velocity project (*http://velocity.apache.org/*) documentation.

Message properties

E-mail notification templates may include properties that determine how a message is processed in cases where SMTP settings different from repository defaults are to be used. For example, it may be necessary to specify a different SMTP server name and port number or the return e-mail address assigned to the message. Default SMTP properties are listed under repository notification configuration options. If Sun JVM is used with the repository installation, SMTP properties will correspond to the JavaMail API properties for message handling defined in the following table. Note that these properties may be different for different Java environments. For detailed information about SMTP properties, see the JVM vendor documentation.

Table 3-4
Message properties

Message Property	Attribute	Event Property	Description
mail.debug	value	MailSmtpDebug	A Boolean value indicating the initial debug mode. The default is false.
mail.smtp.user	value	MailSmtpUser	The default SMTP username.
mail.smtp.password	value	MailSmtpPassword	The SMTP user password.
mail.smtp.host	value	MailSmtpHost	The SMTP server to which to connect.
mail.smtp.port	value	MailSmtpPort	The SMTP server port to which to connect. The default is 25.
mail.smtp.connectiontimeout	value	MailSmtpConnectionTimeout	The socket connection timeout value in milliseconds. By default, the timeout is infinite.

Message Property	Attribute	Event Property	Description
	value	MailSmtpTimeout	The socket I/O timeout value in milliseconds. By default, the timeout is infinite.
mail.smtp.from	value	MailSmtpFrom	The e-mail address used for the SMTP MAIL command. This sets the envelope return address.
mail.smtp.from	label	MailSmtpFromPersonal	The envelope return address label.
mail.smtp.localhost	value	MailSmtpLocalhost	The local hostname. The property should not normally need to be assigned if the JDK and name service are configured properly.
mail.smtp.ehlo	value	MailSmtpEhlo	A Boolean value indicating whether or not to sign on with the EHLO command. The default is true. Typically, failure of the EHLO command results in a fallback to the HELO command. This property should be used only for servers that do not fall back.
mail.smtp.auth	value	MailSmtpAuth	A Boolean value indicating whether or not to authenticate the user using the AUTH command. The default is false.
mail.smtp.dsn.notify	value	MailSmtpDsnNotify	Specifies the conditions under which the SMTP server should send delivery status notifications to the message sender. Valid values include: ■ NEVER indicates that no notification should be sent. ■ SUCCESS indicates that a notification should be sent on successful delivery only. ■ FAILURE indicates that a notification should be sent on a failed delivery only. ■ DELAY indicates that a notification should be sent when the message is delayed. Multiple values can be specified using a comma separator.

The syntax for defining these properties in a Velocity template is as follows:

- The property value must be assigned to mimeMessage/messageProperty with property name and label arguments in square brackets, as in the following example:

```
/mimeMessage/messageProperty[smtp.mail.smtp.from][Brian McGee]=bmagee@mycompany.com
```

- The value of property label is optional; therefore, the assignment statement can have the following syntax:

```
/mimeMessage/messageProperty[smtp.mail.smtp.from][]=bmagee@mycompany.com
```

- The values of property name and label can be assigned as static values or through variables referencing the corresponding event properties:

```
/mimeMessage/messageProperty[smtp.mail.smtp.from][$MailSmtpFromPersonal]=$MailSmtpFrom
```

Message content

The content of a notification message corresponds to the text supplied for the messageSubject and messageContent elements of the notification template. For either element, this text may include variable event property values.

- In Velocity templates, variable values are referenced using the $ notation. For example, Job step ${JobName}/${JobStepName} failed at ${JobStepEnd} inserts the text with the current values for the *JobName*, *JobStepName*, and *JobStepEnd* properties.

The variables that can be inserted into a message reference the properties of the event that triggers the notification. Typical properties include:

- *JobName*, a string denoting the name of the job.
- *JobStart*, a timestamp indicating the time the job began.
- *JobEnd*, a timestamp indicating the time the job ended.
- *JobSuccess*, a Boolean value indicating whether or not the job was successful.
- *JobStatusURL*, a string corresponding to the URL at which the job status can be found.
- *JobStepName*, a string denoting the name of the job.
- *JobStepEnd*, a timestamp indicating the time the job ended.
- *JobStepArtifacts*, an array of string values denoting the URLs of the job step output.
- *JobStepStatusURL*, a string corresponding to the URL at which the job step status can be found.
- *ResourceName*, a string corresponding to the name of the object affected by the event, such as the file or folder name.
- *ResourcePath*, a string corresponding to the path of the object affected by the event.
- *ResourceHttpUrl*, a string corresponding to the HTTP URL at which the object can be found.
- *ChildName*, a string corresponding to the name of the child object of the parent object affected by the event. For example, when a file is created in a folder, this will be the name of the file.
- *ChildHttpUrl*, a string corresponding to the HTTP URL at which the child object can be found.
- *ActionType*, for repository events, the type of action that generated the event—for example, FolderCreated.

The available properties are defined by the event and will be different for different event types.

The following sample Velocity template for job step success notification inserts the names of the job and job step in the subject line. The content of the message also includes the end times for the step, the URL at which the status can be viewed, and a list of artifacts generated by the job step.

Note that the template uses the #foreach loop structure to retrieve the URLs of the artifacts from the *JobStepArtifacts* property array.

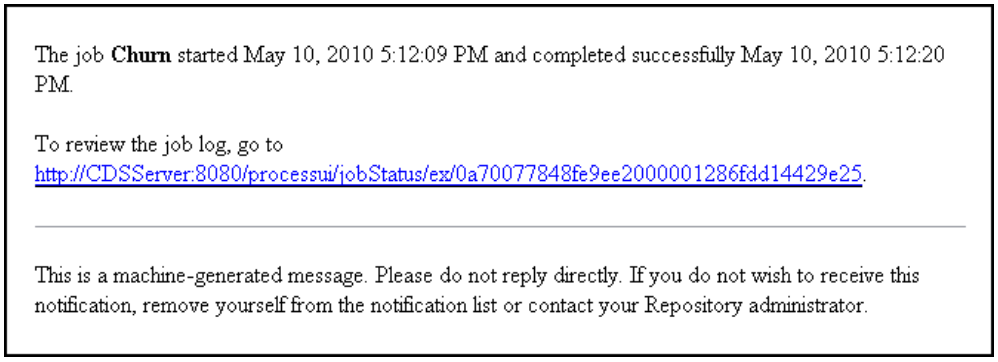
```
<html>
<head>
<meta http-equiv='Content-Type' content='text/html;charset=utf-8'/>
</head>
<body>
<p>The job <b>${JobName}</b> started ${JobStart} and #if($JobSuccess) completed successfully #else failed #end ${JobEnd}.

<p>To review the job log, go to <a href='${JobStatusURL}'>${JobStatusURL}</a>.</p>

<hr><p>This is a machine-generated message. Please do not reply directly. If you do not wish to receive this notification, remove yourself fr
</body>
</html>
```

The following figure displays the resulting e-mail.

Figure 3-3
Message using customized content



The following code segments demonstrate how the Velocity template for folder content notification can be modified to remove the hyperlink to the job from the message. IBM® SPSS® Collaboration and Deployment Services jobs cannot be opened outside IBM® SPSS® Collaboration and Deployment Services Deployment Manager; therefore, it is strongly recommended to customize the notification message to remove the hyperlink. The additional if-condition in the example tests the MIME type of the object; if the object is a IBM SPSS Collaboration and Deployment Services job, the hyperlink is not included.

Original template:

```
#if($Attachments)
See attachment.
#else
<p>To review the content of the file, go to <a href='${ResourceHttpUrl}'>${ResourceHttpUrl}</a>.</p>
#end
```

Modified template:

```
#if($Attachments)
See attachment.
#else
#if($MimeType!='application/x-vnd.spss-prms-job')
<p>To review the content of the file, go to <a href='${ResourceHttpUrl}'>${ResourceHttpUrl}</a>.</p>
#end
#end
```

Message format

A notification template must specify the MIME type of the message content. In notification templates, the MIME type argument is specified in square brackets with /mimeMessage/messageContent.

The MIME type can have one of two values:

- *text/plain*. Notification messages appear in plain text. This is the default setting.
- *text/html*. Notification messages include HTML tags. Use this setting to control the appearance of the content within the message. The HTML within the message must be well-formed.

It is a good practice to always encode template output as Unicode (UTF-8).

HTML notification templates can take advantage of the functionality allowed in the markup. For example, the message can include a link to a Web page or to output from the job.

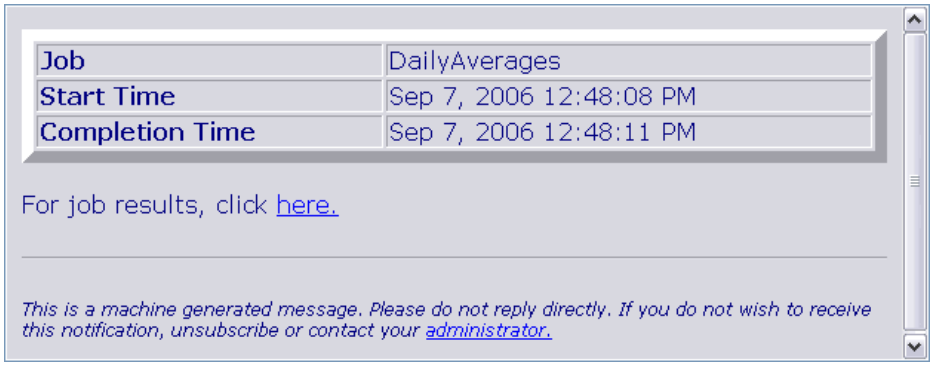
The following template generates a notification message for job step completion, formats content as a table, specifies background color for the message using an inline style for body, and defines a blue Verdana font for paragraphs using an internal style sheet. The message also includes a link to the job output.

```
/mimeMessage/messageSubject=${JobName}/${JobStepName} completed successfully
/mimeMessage/messageContent[text/html;charset=utf-8]=
        <html>
        <head>
        <meta http-equiv="Content-Type" content="text/html;charset=utf-8"/>
        <style type="text/css">
        table {font-family: verdana; color: #000080}
        p {font-family: verdana; color: #000080}
        .foot {font-size: 75%; font-style: italic} </style>
        </head>
        <body style="background-color: #DCDCDC">
        <table border="8" align="center" width = 100%>
        <tr align="left">
        <th>Job/step name</th>
        <td>${JobName}/${JobStepName}</td>
        </tr>
        <tr align="left">
        <th>End time</th>
        <td> ${JobStepEnd}</td>
        </tr>
        <tr align="left">
```

```
<th>Output</th>
<td><p>
#if ($JobStepArtifacts)
  #foreach($artifact in $JobStepArtifacts)
    <a href='$artifact.get("url")'>$artifact.get("filename")</a><br>
  #end
#else None <br>
#end
<p></td>
</tr>
</table>
<hr/>
<p class="foot">This is a machine generated message.
Please do not reply directly. If you do not wish to receive
this notification, unsubscribe or contact your
<a href="mailto:admin@mycompany.com"> your IBM SPSS Deployment
Services administrator.</a></p></body>
</html>
```

The following figure displays the resulting e-mail.

Figure 3-4
Message using customized formatting



Chapter
4

Operation reference

The addContentFormatter operation

Adds a content formatter for a specified subscription.

Input fields

The following table lists the input fields for the addContentFormatter operation.

Table 4-1
Fields for addContentFormatter

Field	Type/Valid Values	Description
identifier	string	An identifier for a subscription.
contentFormatter	contentFormatter	Handles formatting of the notification message for the appropriate transport protocol.

Return information

The following table identifies the information returned by the addContentFormatter operation.

Table 4-2
Return Value

Type	Description
string	The identifier for the new content formatter.

Java example

To add a content formatter for a subscription:

1. Create a ContentFormatter object.
2. Define the protocol type for the formatter by supplying a ProtocolType value to the setProtocolType method.
3. Specify the name for the message template using the setTemplateName method.
4. Supply the addContentFormatter operation with a subscription identifier and the ContentFormatter object.

   The operation returns a unique identifier for the new content formatter.

```
ContentFormatter cFormatter = new ContentFormatter();
cFormatter.setProtocolType(ProtocolType.SMTP);
cFormatter.setTemplateName("job_failure.xsl");
String subscriptionIdentifier = "0a0a4aac00072ffb000001094fa9f57ecace";
String contentFormatterIdentifier =
```

```
stub.addContentFormatter(subscriptionIdentifier, cFormatter);
```

SOAP request example

Client invocation of the addContentFormatter operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
  xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <addContentFormatter xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac00072ffb000001094fa9f57ecace</identifier>
   <contentFormatter templateName="job_failure.xsl" protocolType="smtp"
    xmlns="http://xml.spss.com/notification"/>
  </addContentFormatter>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addContentFormatter operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <addContentFormatterResponse xmlns="http://xml.spss.com/notification/remote">
   <contentFormatterIdentifier>0a0a4aac00072ffb000001094fa9f57ecad5</contentFormatterIdentifier>
  </addContentFormatterResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The addDeliveryDevice operation

Adds a delivery device for a specified subscriber. The Subscription Repository Service also provides a helper operation that allows the addition of a delivery device for the subscriber using a simplified form. This operation, setSubscriber, will create a new subscriber if necessary. For more information, see the topic The setSubscriber operation on p. 104.

Input fields

The following table lists the input fields for the addDeliveryDevice operation.

Table 4-3
Fields for addDeliveryDevice

Field	Type/Valid Values	Description
identifier	string	An identifier for a subscriber.
deliveryDevice	deliveryDevice	Represents a device that can receive notifications.

Return information

The following table identifies the information returned by the addDeliveryDevice operation.

Table 4-4
Return Value

Type	Description
string	The identifier for the new delivery device.

Java example

To add a delivery device for a subscriber, create a DeliveryDevice object. Define the protocol type for the device by supplying a ProtocolType value to setProtocolType. Specify the address to which to send the notification using setAddress. The addDeliveryDevice operation adds the delivery device for the specified subscriber to the repository, returning a unique identifier for the delivery device.

```
DeliveryDevice deliveryDevice = new DeliveryDevice();
deliveryDevice.setProtocolType(ProtocolType.SMTP);
deliveryDevice.setAddress("mpower@spfd.com");
String subscriberIdentifier = "0a0a4aacfe9747c10000010dd18630f58036";
String deliveryDeviceIdentifier =
  stub.addDeliveryDevice(subscriberIdentifier, deliveryDevice);
```

SOAP request example

Client invocation of the addDeliveryDevice operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

```
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
     xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
     xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <addDeliveryDevice xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aacfe9747c10000010dd18630f58036</identifier>
   <deliveryDevice xmlns="http://xml.spss.com/notification" protocolType="smtp"
      address="mpower@spfd.com"/>
  </addDeliveryDevice>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addDeliveryDevice operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <addDeliveryDeviceResponse xmlns="http://xml.spss.com/notification/remote">
   <deliveryDeviceIdentifier>0a0a4aacfe9747c10000010dd18630f59de7</deliveryDeviceIdentifier>
  </addDeliveryDeviceResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The addDerivedEventType operation

Creates a new event type derived from an existing parent event type. The property set for the new event type includes all properties defined for the parent plus any new properties defined for derived event type. The derived event type name, as well as the names for its properties, are subject to the following restrictions:

- Begins with a letter
- Consists of letters and digits
- Free from leading or trailing underscores, dollar signs, and spaces

Input fields

The following table lists the input fields for the addDerivedEventType operation.

Table 4-5
Fields for addDerivedEventType

Field	Type/Valid Values	Description
parentIdentifier	string	Identifier for the event type from which to derive the new event type.
eventType	eventType	Identifies a type of the event within its notification domain .

Return information

The following table identifies the information returned by the addDerivedEventType operation.

Table 4-6
Return Value

Type	Description
string	An identifier for the new event type.

Java example

To add a derived event type to the system, create an EventType object. Use the setDomainName method to specify the name of the notification domain that contains the event type, and the setTypeName method to define the name of the event type.

To add a property to the event type, create a Property object. Use the setName method to specify a name for the property and the setTypeCode method to define the type of information stored in the property. The setProperty method of the EventType object adds the property to the event type.

Supply the addDerivedEventType operation with the identifier of the parent event type and the EventType object defining the new properties to add the derived event type to the notification domain. The following example derives the *FileAuthorEvent* event type from the *FileEvent* event. The new event type includes all *FileEvent* properties, plus a property corresponding to the author of the file.

```
EventType eventType = new EventType();
eventType.setDomainName("MyDomain");
eventType.setTypeName("FileAuthorEvent");
Property property = new Property();
property.setName("ResourceAuthor");
property.setTypeCode(TypeCode.STRING);
eventType.setProperty(property);
// Identifier for the FileEvent event type
String parentIdentifier = "000000000000000000000000000000001ff";
String identifier = stub.addDerivedEventType(parentIdentifier, eventType);
```

SOAP request example

Client invocation of the addDerivedEventType operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <addDerivedEventType xmlns="http://xml.spss.com/notification/remote">
   <parentIdentifier>000000000000000000000000000000001ff</parentIdentifier>
   <eventType xmlns="http://xml.spss.com/notification" domainName="MyDomain"
     typeName="FileAuthorEvent">
    <property typeCode="string" name="ResourceAuthor"/>
   </eventType>
  </addDerivedEventType>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addDerivedEventType operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <addDerivedEventTypeResponse xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aacd90178eb0000010dea8eaedfdcaa</identifier>
  </addDerivedEventTypeResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The addDistributionList operation

Adds a distribution list to the system.

Input fields

The following table lists the input fields for the addDistributionList operation.

Table 4-7
Fields for addDistributionList

Field	Type/Valid Values	Description
distributionList	distributionList	Represents a logical grouping of the individual subscribers. For internal use only. This is reserved for future use.

Return information

The following table identifies the information returned by the addDistributionList operation.

Table 4-8
Return Value

Type	Description
string	The identifier for the new distribution list.

Java example

To add a distribution list, create a DistributionList object.Specify the name of the list using the setName method. The addDistributionList operation adds this object to the system, returning a string containing a unique system identifier for the new distribution list.

```
DistributionList distributionList = new DistributionList();
distributionList.setName("analysts");
String distributionListIdentifier = stub.addDistributionList(distributionList);
```

SOAP request example

Client invocation of the addDistributionList operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
   soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
   soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <addDistributionList xmlns="http://xml.spss.com/notification/remote">
```

```
    <distributionList xmlns="http://xml.spss.com/notification" name="analysts"/>
   </addDistributionList>
  </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addDistributionList operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
   <addDistributionListResponse xmlns="http://xml.spss.com/notification/remote">
    <identifier>0a0a4aac0161f10f0000010d8e63c979c698</identifier>
   </addDistributionListResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

The addEventType operation

Adds an event type to the system. The event type name, as well as the names for its properties, are subject to the following restrictions:

- Begins with a letter
- Consists of letters and digits
- Free from leading or trailing underscores, dollar signs, and spaces

Input fields

The following table lists the input fields for the addEventType operation.

Table 4-9
Fields for addEventType

Field	Type/Valid Values	Description
eventType	eventType	Identifies a type of the event within its notification domain .

Return information

The following table identifies the information returned by the addEventType operation.

Table 4-10
Return Value

Type	Description
string	The identifier for the new event type.

Java example

To add an event type to the system, create an EventType object. Use the setDomainName method to specify the name of the notification domain that contains the event type, and the setTypeName method to define the name of the event type.

To add a property to the event type, create a Property object. Use the setName method to specify a name for the property and the setTypeCode method to define the type of information stored in the property. The setProperty method of the EventType object adds the property to the event type.

When finished adding properties, use the addEventType operation to add the event type to the notification domain.

```
EventType eventType = new EventType();
eventType.setDomainName("MyDomain");
eventType.setTypeName("Completion");
Property property = new Property();
property.setName("JobID");
property.setTypeCode(TypeCode.STRING);
eventType.setProperty(property);
property = new Property();
property.setName("Success");
property.setTypeCode(TypeCode.BOOLEAN);
eventType.setProperty(property);
String identifier = stub.addEventType(eventType);
```

SOAP request example

Client invocation of the addEventType operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <addEventType xmlns="http://xml.spss.com/notification/remote">
   <eventType xmlns="http://xml.spss.com/notification" domainName="MyDomain" typeName="Completion">
    <property typeCode="string" name="JobID"/>
    <property typeCode="boolean" name="Success"/>
   </eventType>
  </addEventType>
```

```
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addEventType operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <addEventTypeResponse xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aacfe9747c10000010dd18630f59dc9</identifier>
  </addEventTypeResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The addNotificationDomain operation

Adds a notification domain to the system. The domain name is subject to the following restrictions:

- Begins with a letter
- Consists of letters and digits
- Free from leading or trailing underscores, dollar signs, and spaces

Input fields

The following table lists the input fields for the addNotificationDomain operation.

Table 4-11
Fields for addNotificationDomain

Field	Type/Valid Values	Description
notificationDomain	notificationDomain	Identifies the particular vertical industry domain or application in which the event type is defined.

Return information

The following table identifies the information returned by the addNotificationDomain operation.

Table 4-12
Return Value

Type	Description
string	The identifier for the new notification domain.

Java example

To add a notification domain, create a NotificationDomain object. Use the setName method to define the name for the domain. The addNotificationDomain operation adds the notification domain to the system, returning a unique identifier for the domain.

```
NotificationDomain notificationDomain = new NotificationDomain();
notificationDomain.setName("MyDomain");
String identifier = stub.addNotificationDomain(notificationDomain);
```

SOAP request example

Client invocation of the addNotificationDomain operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
     soapenv:mustUnderstand="0"
     xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
     <wsse:Username>validUser</wsse:Username>
     <wsse:Password>password</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
     soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <addNotificationDomain xmlns="http://xml.spss.com/notification/remote">
   <notificationDomain xmlns="http://xml.spss.com/notification" name="MyDomain"/>
  </addNotificationDomain>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addNotificationDomain operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <addNotificationDomainResponse xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979e87c</identifier>
```

```
  </addNotificationDomainResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The addSubscriber operation

Adds a subscriber to the system.

Input fields

The following table lists the input fields for the addSubscriber operation.

Table 4-13
Fields for addSubscriber

Field	Type/Valid Values	Description
subscriber	subscriber	Represents an individual subscriber.

Return information

The following table identifies the information returned by the addSubscriber operation.

Table 4-14
Return Value

Type	Description
string	The identifier for the new subscriber.

Java example

To add a subscriber to the subscription repository, create a Subscriber object. Specify a unique principal identifier for the subscriber using setPrincipalID. The addSubscriber operation adds the subscriber to the repository, returning a unique identifier for the subscriber.

```
Subscriber subscriber = new Subscriber();
String principalID ="//u/smtp/lalgar@yahoo.com";
subscriber.setPrincipalID(principalID);
String subscriberIdentifier = stub.addSubscriber(subscriber);
```

SOAP request example

Client invocation of the addSubscriber operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0"
```

```
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
     <wsse:UsernameToken>
      <wsse:Username>validUser</wsse:Username>
      <wsse:Password>password</wsse:Password>
     </wsse:UsernameToken>
    </wsse:Security>
    <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
     en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
  </soapenv:Header>
  <soapenv:Body>
   <addSubscriber xmlns="http://xml.spss.com/notification/remote">
    <subscriber xmlns="http://xml.spss.com/notification" principalID="//u/smtp/lalgar@yahoo.com"/>
   </addSubscriber>
  </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addSubscriber operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
   <addSubscriberResponse xmlns="http://xml.spss.com/notification/remote">
    <identifier>0a0a4aacfe9747c10000010dd18630f581f5</identifier>
   </addSubscriberResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

The addSubscribersToDistributionList operation

Adds one or more subscribers to a specified distribution list.

Input fields

The following table lists the input fields for the addSubscribersToDistributionList operation.

Table 4-15
Fields for addSubscribersToDistributionList

Field	Type/Valid Values	Description
subscriberIdentifier	string[]	Identifiers for subscribers being added.
distributionListIdentifier	string	Identifier for the distribution list.

Java example

To add subscribers to a distribution list, supply the addSubscribersToDistributionList operation with an array of identifiers for the subscribers and the identifier for the distribution list.

The following sample uses the getObjects method to return the DistributionList object having the name *analysts*. The getIdentifier method returns the identifier for this distribution list.

A string array defines the subscriber identifiers. The addSubscribersToDistributionList operation adds these subscribers to the *analysts* distribution list.

```
DistributionListCriterion dlCrit = new DistributionListCriterion();
dlCrit.setName("analysts");
QuerySpecification querySpec = new QuerySpecification();
querySpec.setDistributionListCriterion(dlCrit);
QueryResult result = stub.getObjects(querySpec);
DistributionList dList = result.getDistributionList(0);
String distributionListIdentifier = dList.getIdentifier();

String[] subscriberIdentifier = new String[2];
subscriberIdentifier[0] = "0a0a4aac0161f10f0000010d8e63c979c0d6";
subscriberIdentifier[1] = "0a0a4aac0161f10f0000010d8e63c979c09f";

stub.addSubscribersToDistributionList(subscriberIdentifier, distributionListIdentifier);
```

SOAP request example

Client invocation of the addSubscribersToDistributionList operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <addSubscribersToDistributionList xmlns="http://xml.spss.com/notification/remote">
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c0d6</subscriberIdentifier>
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c09f</subscriberIdentifier>
   <distributionListIdentifier>0a0a4aacfe9747c10000010dd18630f581cb</distributionListIdentifier>
  </addSubscribersToDistributionList>
 </soapenv:Body>
```

```
</soapenv:Envelope>
```

SOAP response example

The server responds to a addSubscribersToDistributionList operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <addSubscribersToDistributionListResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The addSubscriberToDistributionList operation

Adds a subscriber to a specified distribution list.

Input fields

The following table lists the input fields for the addSubscriberToDistributionList operation.

Table 4-16
Fields for addSubscriberToDistributionList

Field	Type/Valid Values	Description
subscriberIdentifier	string	Identifier for the subscriber being added.
distributionListIdentifier	string	Identifier for the distribution list.

Java example

To add a subscriber to a distribution list, supply the addSubscriberToDistributionList operation with identifiers for the subscriber and the distribution list. The following sample creates a new distribution list, creates a new subscriber, and adds the subscriber to the list using the identifiers returned from the creation steps.

```
DistributionList distributionList = new DistributionList();
distributionList.setName("analysts");
String distributionListIdentifier = stub.addDistributionList(distributionList);
Subscriber subscriber = new Subscriber();
String principalID ="//u/smtp/lalgar@yahoo.com";
subscriber.setPrincipalID(principalID);
String subscriberIdentifier = stub.addSubscriber(subscriber);
stub.addSubscriberToDistributionList(subscriberIdentifier, distributionListIdentifier);
```

SOAP request example

Client invocation of the addSubscriberToDistributionList operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
     soapenv:mustUnderstand="0"
     xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
     <wsse:Username>validUser</wsse:Username>
     <wsse:Password>password</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
     soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <addSubscriberToDistributionList xmlns="http://xml.spss.com/notification/remote">
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c09f</subscriberIdentifier>
   <distributionListIdentifier>0a0a4aac0161f10f0000010d8e63c979c698</distributionListIdentifier>
  </addSubscriberToDistributionList>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addSubscriberToDistributionList operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <addSubscriberToDistributionListResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The addSubscriptionSelector operation

Adds a subscription selector for an event type.

Input fields

The following table lists the input fields for the addSubscriptionSelector operation.

Table 4-17
Fields for addSubscriptionSelector

Field	Type/Valid Values	Description
identifier	string	An identifier for an event type.
subscriptionSelector	subscriptionSelector	Defines a subscription selector for the given event type.

Return information

The following table identifies the information returned by the addSubscriptionSelector operation.

Table 4-18
Return Value

Type	Description
string	The identifier for the new subscription selector.

Java example

To add a subject based subscription selector for an event type, create a SubscriptionSelector object. Specify the name for the selector using the setName method. Supply the addSubscriptionSelector operation with an event type identifier and the SubscriptionSelector object to add the selector to the system, returning a unique identifier for the selector.

```
SubscriptionSelector subscriptionSelector = new SubscriptionSelector();
subscriptionSelector.setName("All_PRMS_Events");
String eventTypeIdentifier = "0a0a4aacfe9747c10000010dd18630f59dc9";
stub.addSubscriptionSelector(eventTypeIdentifier, subscriptionSelector);
```

SOAP request example

Client invocation of the addSubscriptionSelector operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
```

```
 <soapenv:Body>
  <addSubscriptionSelector xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aacfe9747c10000010dd18630f59dc9</identifier>
   <subscriptionSelector xmlns="http://xml.spss.com/notification" name="All_PRMS_Events"/>
  </addSubscriptionSelector>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a addSubscriptionSelector operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <addSubscriptionSelectorResponse xmlns="http://xml.spss.com/notification/remote">
   <subscriptionSelectorIdentifier>0a0a4aacfe9747c10000010dd18630f59e04</subscriptionSelectorIdentifier>
  </addSubscriptionSelectorResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The bulkSubscribe operation

Adds one or more subscribers to an existing subscription.

Input fields

The following table lists the input fields for the bulkSubscribe operation.

Table 4-19
Fields for bulkSubscribe

Field	Type/Valid Values	Description
subscriberIdentifier	string[]	Identifiers for subscribers.
subscriptionIdentifier	string	An identifier for a subscription.

Java example

To add subscribers to a subscription, create an array of strings corresponding to the identifiers for the subscribers. Supply the bulkSubscribe operation with the array and a string corresponding to the subscription identifier.

```
String[] subscriberIdentifier = new String[2];
subscriberIdentifier[0] = "0a0a4aac0161f10f0000010d8e63c979c0d6";
subscriberIdentifier[1] = "0a0a4aac0161f10f0000010d8e63c979c09f";
String subscriptionIdentifier = "0a0a4aac0161f10f0000010d8e63c979c098";
stub.bulkSubscribe(subscriberIdentifier, subscriptionIdentifier);
```

SOAP request example

Client invocation of the bulkSubscribe operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <bulkSubscribe xmlns="http://xml.spss.com/notification/remote">
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c0d6</subscriberIdentifier>
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c09f</subscriberIdentifier>
   <subscriptionIdentifier>0a0a4aac0161f10f0000010d8e63c979c098</subscriptionIdentifier>
  </bulkSubscribe>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a bulkSubscribe operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <bulkSubscribeResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The bulkUnsubscribe operation

Removes one or more subscribers from a subscription.

Input fields

The following table lists the input fields for the bulkUnsubscribe operation.

Table 4-20
Fields for bulkUnsubscribe

Field	Type/Valid Values	Description
subscriberIdentifier	string[]	Identifiers for subscribers.
subscriptionIdentifier	string	An identifier for a subscription.

Java example

To remove subscribers from a subscription, create an array of strings corresponding to the identifiers for the subscribers. Supply the bulkUnsubscribe operation with the array and a string corresponding to the subscription identifier.

```
String[] subscriberIdentifier = new String[2];
subscriberIdentifier[0] = "0a0a4aac0161f10f0000010d8e63c979c0d6";
subscriberIdentifier[1] = "0a0a4aac0161f10f0000010d8e63c979c09f";
String subscriptionIdentifier = "0a0a4aac0161f10f0000010d8e63c979c098";
stub.bulkUnsubscribe(subscriberIdentifier, subscriptionIdentifier);
```

SOAP request example

Client invocation of the bulkUnsubscribe operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <bulkUnsubscribe xmlns="http://xml.spss.com/notification/remote">
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c0d6</subscriberIdentifier>
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c09f</subscriberIdentifier>
   <subscriptionIdentifier>0a0a4aac0161f10f0000010d8e63c979c098</subscriptionIdentifier>
  </bulkUnsubscribe>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a bulkUnsubscribe operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <bulkUnsubscribeResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The createSubscription operation

Creates a subscription in the system.

Input fields

The following table lists the input fields for the createSubscription operation.

Table 4-21
Fields for createSubscription

Field	Type/Valid Values	Description
subscriptionSpecification	subscriptionSpecification	Defines a set of parameters to create a subscription.

Return information

The following table identifies the information returned by the createSubscription operation.

Table 4-22
Return Value

Type	Description
subscription	Represents a single subscription.

Java example

To add a subscription to the subscription repository, create a SubscriptionSpecification object. Specify the principal ID for the subscriber using the setPrincipalID method. Define the subscription selector using the setSubscriptionSelectorIdentifier method. Supply the setSubscribableIdentifier method with the resource ID of the repository object associated with the subscription.

To specify a value for a subscription property, create a PropertyValue object. Use the setName and setTypeCode methods to define the property name and type, respectively. Create a Value object for the property value and use the setContent method to actually specify the value. Use the

setValue method to assign the value to the PropertyValue object. The setPropertyValue method assigns the value to the SubscriptionSpecification object.

Next, create an EventType object. Use the setDomainName and setTypeName methods to define the domain name and type name, respectively, for the subscription. The setEventType method assigns the event type to the SubscriptionSpecification object.

The createSubscription operation adds the subscription to the repository, returning a Subscription object.

```
SubscriptionSpecification subscriptionSpecification =
   new SubscriptionSpecification();
String selectorIdentifier = "00000000000000000000000000000200";
subscriptionSpecification.setSubscriptionSelectorIdentifier(selectorIdentifier);
subscriptionSpecification.setMulticasted(false);
subscriptionSpecification.setPrincipalID("//uNative//validUser");
subscriptionSpecification.setSubscribableIdentifier("0a0a4aac0161f10f0000010d8e63c9799c24");

PropertyValue propertyValue = new PropertyValue();
propertyValue.setName("ResourceID");
propertyValue.setTypeCode(TypeCode.STRING);
Value value = new Value();
value.setContent("0a0a4aac0161f10f0000010d8e63c9799c24");
propertyValue.setValue(value);
subscriptionSpecification.setPropertyValue(propertyValue);

EventType eventType = new EventType();
eventType.setDomainName("Repository");
eventType.setTypeName("FileEvent");
subscriptionSpecification.setEventType(eventType);

Subscription subscription = stub.createSubscription(subscriptionSpecification);
```

SOAP request example

Client invocation of the createSubscription operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
   soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
   soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
```

```
 </soapenv:Header>
 <soapenv:Body>
  <createSubscription xmlns="http://xml.spss.com/notification/remote">
   <ns2:subscriptionSpecification
    subscriptionSelectorIdentifier="00000000000000000000000000000000200"
    multicasted="false" principalID="//uNative//validUser"
    xmlns:ns2="http://xml.spss.com/notification">
    <ns2:propertyValue typeCode="string" name="ResourceID">
     <ns2:value>0a0a4aac0161f10f0000010d8e63c9799c24</ns2:value>
    </ns2:propertyValue>
    <ns2:subscriptionSelectorIdentifier>
     00000000000000000000000000000000200
    </ns2:subscriptionSelectorIdentifier>
    <ns2:subscribableIdentifier>0a0a4aac0161f10f0000010d8e63c9799c24</ns2:subscribableIdentifier>
    <ns2:eventType domainName="Repository" typeName="FileEvent"/>
   </ns2:subscriptionSpecification>
  </createSubscription>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a createSubscription operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <createSubscriptionResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:subscription subscriptionSelectorIdentifier="00000000000000000000000000000000200"
    multicasted="false" xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c03f</ns1:identifier>
    <ns1:propertyValue typeCode="string" name="ResourceID$0">
     <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c040</ns1:identifier>
     <ns1:value>0a0a4aac0161f10f0000010d8e63c9799c24</ns1:value>
    </ns1:propertyValue>
    <ns1:propertyValue typeCode="boolean" name="Attachments$0">
     <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c041</ns1:identifier>
     <ns1:value>false</ns1:value>
    </ns1:propertyValue>
   </ns1:subscription>
  </createSubscriptionResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteContentFormatter operation

Removes a specified content formatter from the system.

Input fields

The following table lists the input fields for the deleteContentFormatter operation.

Table 4-23
Fields for deleteContentFormatter

Field	Type/Valid Values	Description
identifier	string	A content formatter identifier.

Java example

To delete a content formatter, supply the deleteContentFormatter operation with the identifier for the content formatter.

```
String identifier = "0a0a4aac00072ffb000001094fa9f57ecad5";
stub.deleteContentFormatter(identifier);
```

SOAP request example

Client invocation of the deleteContentFormatter operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <deleteContentFormatter xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac00072ffb000001094fa9f57ecad5</identifier>
  </deleteContentFormatter>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteContentFormatter operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <deleteContentFormatterResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteDeliveryDevice operation

Removes a specified delivery device from the system.

Input fields

The following table lists the input fields for the deleteDeliveryDevice operation.

Table 4-24
Fields for deleteDeliveryDevice

Field	Type/Valid Values	Description
identifier	string	A delivery device identifier.

Java example

To delete a delivery device, use the deleteDeliveryDevice operation. Supply the identifier of the delivery device to be deleted.

```
String deliveryDeviceIdentifier = "0a0a4aac0161f10f0000010d8e63c979c0a0";
stub.deleteDeliveryDevice(deliveryDeviceIdentifier);
```

SOAP request example

Client invocation of the deleteDeliveryDevice operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
     <wsse:Username>validUser</wsse:Username>
```

```
      <wsse:Password>password</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
     soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <deleteDeliveryDevice xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c0a0</identifier>
  </deleteDeliveryDevice>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteDeliveryDevice operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <deleteDeliveryDeviceResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteDistributionList operation

Removes a designated distribution list from the system.

Input fields

The following table lists the input fields for the deleteDistributionList operation.

Table 4-25
Fields for deleteDistributionList

Field	Type/Valid Values	Description
identifier	string	A distribution list identifier.

Java example

To delete a distribution list, supply the deleteDistributionList operation with the identifier for the distribution list.

```
String identifier = "0a0a4aac0161f10f0000010d8e63c979c68e";
stub.deleteDistributionList(identifier);
```

SOAP request example

Client invocation of the deleteDistributionList operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <deleteDistributionList xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c68e</identifier>
  </deleteDistributionList>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteDistributionList operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <deleteDistributionListResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteEventType operation

Removes a specified event type from the system.

Input fields

The following table lists the input fields for the deleteEventType operation.

Table 4-26
Fields for deleteEventType

Field	Type/Valid Values	Description
identifier	string	An event type identifier.

Java example

To delete an event type, supply the deleteEventType operation with the identifier for the event type.

```
String identifier = "0a0a4aacfe9747c10000010dd18630f59dc9";
stub.deleteEventType(identifier);
```

SOAP request example

Client invocation of the deleteEventType operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <deleteEventType xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aacfe9747c10000010dd18630f59dc9</identifier>
  </deleteEventType>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteEventType operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
```

```
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <deleteEventTypeResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteNotificationDomain operation

Removes a designated notification domain from the system.

Input fields

The following table lists the input fields for the deleteNotificationDomain operation.

Table 4-27
Fields for deleteNotificationDomain

Field	Type/Valid Values	Description
identifier	string	A notification domain identifier.

Java example

To delete a notification domain, supply the deleteNotificationDomain operation with the identifier for the domain.

```
String identifier = "0a0a4aac0161f10f0000010d8e63c979e87c";
stub.deleteNotificationDomain(identifier);
```

SOAP request example

Client invocation of the deleteNotificationDomain operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
```

```
  <deleteNotificationDomain xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979e87c</identifier>
  </deleteNotificationDomain>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteNotificationDomain operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <deleteNotificationDomainResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteSubscriber operation

Removes a specified subscriber from the system.

Input fields

The following table lists the input fields for the deleteSubscriber operation.

Table 4-28
Fields for deleteSubscriber

Field	Type/Valid Values	Description
identifier	string	A subscriber identifier.

Java example

To delete a subscriber, use deleteSubscriber. Supply the identifier of the subscriber to be deleted.

```
String subscriberIdentifier = "0a0a4aac0161f10f0000010d8e63c979c09f";
stub.deleteSubscriber(subscriberIdentifier);
```

SOAP request example

Client invocation of the deleteSubscriber operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

```
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
     soapenv:mustUnderstand="0"
     xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
     <wsse:Username>validUser</wsse:Username>
     <wsse:Password>password</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
     soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <deleteSubscriber xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c09f</identifier>
  </deleteSubscriber>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteSubscriber operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <deleteSubscriberResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteSubscribers operation

Input fields

The following table lists the input fields for the deleteSubscribers operation.

Table 4-29
Fields for deleteSubscribers

Field	Type/Valid Values	Description
identifier	string[]	A subscriber identifier.

Java example

To delete multiple subscribers, use the deleteSubscribers operation. Supply an array containing the identifiers of the subscribers to be deleted.

```
String[] subscriberIdentifier = new String[2];
subscriberIdentifier[0] = "0a0a4aacfe9747c10000010dd18630f581f5";
subscriberIdentifier[1] = "0a0a4aacfe9747c10000010dd18630f5809c";
stub.deleteSubscribers(subscriberIdentifier);
```

SOAP request example

Client invocation of the deleteSubscribers operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
     <wsse:Username>validUser</wsse:Username>
     <wsse:Password>password</wsse:Password>
    </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
   <deleteSubscribers xmlns="http://xml.spss.com/notification/remote">
    <identifier>0a0a4aacfe9747c10000010dd18630f581f5</identifier>
    <identifier>0a0a4aacfe9747c10000010dd18630f5809c</identifier>
   </deleteSubscribers>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteSubscribers operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <deleteSubscribersResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteSubscription operation

Removes a designated subscription from the system.

Input fields

The following table lists the input fields for the deleteSubscription operation.

Table 4-30
Fields for deleteSubscription

Field	Type/Valid Values	Description
identifier	string	A subscription identifier.

Java example

To delete a subscription, supply the deleteSubscription operation with the identifier for the subscription.

```
String identifier = "0a0a4aac0161f10f0000010d8e63c979c098";
stub.deleteSubscription(identifier);
```

SOAP request example

Client invocation of the deleteSubscription operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <deleteSubscription xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c098</identifier>
  </deleteSubscription>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteSubscription operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <deleteSubscriptionResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteSubscriptions operation

Input fields

The following table lists the input fields for the deleteSubscriptions operation.

Table 4-31
Fields for deleteSubscriptions

Field	Type/Valid Values	Description
identifier	string[]	A subscription identifier.

Java example

To delete one or more subscriptions, supply the deleteSubscriptions operation with the identifiers for the subscriptions.

```
String identifier = "0a0a4aac0161f10f0000010d8e63c979c03f";
stub.deleteSubscriptions(identifier);
```

SOAP request example

Client invocation of the deleteSubscriptions operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
   soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
     <wsse:UsernameToken>
       <wsse:Username>validUser</wsse:Username>
       <wsse:Password>password</wsse:Password>
     </wsse:UsernameToken>
```

```
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
   soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <deleteSubscriptions xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c03f</identifier>
  </deleteSubscriptions>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteSubscriptions operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <deleteSubscriptionsResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The deleteSubscriptionSelector operation

Removes a specified subscription selector from the system.

Input fields

The following table lists the input fields for the deleteSubscriptionSelector operation.

Table 4-32
Fields for deleteSubscriptionSelector

Field	Type/Valid Values	Description
identifier	string	A subscription selector identifier.

Java example

To delete a subscription selector, supply the deleteSubscriptionSelector operation with the identifier for the subscription selector.

```
String identifier = "00000000000000000000000000000001fd";
stub.deleteSubscriptionSelector(identifier);
```

SOAP request example

Client invocation of the deleteSubscriptionSelector operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <deleteSubscriptionSelector xmlns="http://xml.spss.com/notification/remote">
   <identifier>00000000000000000000000000000001fd</identifier>
  </deleteSubscriptionSelector>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a deleteSubscriptionSelector operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <deleteSubscriptionSelectorResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The getContentFormatter operation

Retrieves the content formatter corresponding to the specified identifier.

Input fields

The following table lists the input fields for the getContentFormatter operation.

Table 4-33
Fields for getContentFormatter

Field	Type/Valid Values	Description
identifier	string	An identifier for a content formatter.

Return information

The following table identifies the information returned by the getContentFormatter operation.

Table 4-34
Return Value

Type	Description
contentFormatter	Handles formatting of the notification message for the appropriate transport protocol.

Java example

The information available in the ContentFormatter object returned by the getContentFormatter operation includes the following:

- Protocol type
- Template name
- Identifier for the formatter

The following example uses the getProtocolType, getTemplateName, and getIdentifier methods to access the content formatter characteristics.

```
String formatterIdentifier = "0a0a4aacd90178eb0000010dea8eaedf802a";
ContentFormatter formatter = stub.getContentFormatter(formatterIdentifier);
System.out.println("Identifier: " + formatter.getIdentifier());
System.out.println("Protocol Type: " + formatter.getProtocolType());
System.out.println("Template Name: " + formatter.getTemplateName());
```

SOAP request example

Client invocation of the getContentFormatter operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
```

```
      <wsse:Password xsi:type="xsd:string">password</wsse:Password>
    </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
      xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
  </soapenv:Header>
  <soapenv:Body>
   <getContentFormatter xmlns="http://xml.spss.com/notification/remote">
    <identifier>0a0a4aacd90178eb0000010dea8eaedf802a</identifier>
   </getContentFormatter>
  </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getContentFormatter operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
   <getContentFormatterResponse xmlns="http://xml.spss.com/notification/remote">
    <ns1:contentFormatter templateName="job_failure.xsl" protocolType="smtp"
       templateProviderType="file" xmlns:ns1="http://xml.spss.com/notification">
     <ns1:identifier>0a0a4aacd90178eb0000010dea8eaedf802a</ns1:identifier>
    </ns1:contentFormatter>
   </getContentFormatterResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

The getContentFormatters operation

Retrieves all content formatters associated with a specified subscription.

Input fields

The following table lists the input fields for the getContentFormatters operation.

Table 4-35
Fields for getContentFormatters

Field	Type/Valid Values	Description
identifier	string	

Return information

The following table identifies the information returned by the getContentFormatters operation.

Table 4-36
Return Value

Type	Description
contentFormatter[]	Handles formatting of the notification message for the appropriate transport protocol.

Java example

The information available in the ContentFormatter objects returned by the getContentFormatters operation includes the following:

- Protocol type
- Template name
- Identifier for the formatter

The following example iterates through the returned objects, using the getProtocolType, getTemplateName, and getIdentifier methods to access the content formatter characteristics.

```
String subscriptionIdentifier = "0a0a4aacd90178eb0000010dea8eaedf801b";
ContentFormatter[] formatter = stub.getContentFormatters(subscriptionIdentifier);
for (int j = 0; j < formatter.length; j++) {
  System.out.println("Identifier: " + formatter[j].getIdentifier());
  System.out.println("Protocol Type: " + formatter[j].getProtocolType());
  System.out.println("Template Name: " + formatter[j].getTemplateName());
  System.out.println();
}
```

SOAP request example

Client invocation of the getContentFormatters operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
  xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getContentFormatters xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aacd90178eb0000010dea8eaedf801b</identifier>
  </getContentFormatters>
```

```
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getContentFormatters operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getContentFormattersResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:contentFormatter templateName="job_failure.xsl" protocolType="smtp"
     templateProviderType="file" xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a4aacd90178eb0000010dea8eaedf802a</ns1:identifier>
   </ns1:contentFormatter>
  </getContentFormattersResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getDeliveryDevice operation

Returns the delivery device for a specified device identifier.

Input fields

The following table lists the input fields for the getDeliveryDevice operation.

Table 4-37
Fields for getDeliveryDevice

Field	Type/Valid Values	Description
identifier	string	An identifier for a delivery device.

Return information

The following table identifies the information returned by the getDeliveryDevice operation.

Table 4-38
Return Value

Type	Description
deliveryDevice	Represents a device that can receive notifications.

Java example

The information available in the DeliveryDevice object returned by the getDeliveryDevice operation includes the following:

- Protocal type for the device
- Address associated with the device
- Device identifier

The following example uses the getProtocolType, getAddress, and getIdentifier methods to access the delivery device characteristics.

```
String deviceIdentifier = "0a0a4aac0161f10f0000010d8e63c979c0a0";
DeliveryDevice dDevice = stub.getDeliveryDevice(deviceIdentifier);
System.out.println("Identifier: " + dDevice.getIdentifier());
System.out.println("Protocol Type: " + dDevice.getProtocolType());
System.out.println("Address: " + dDevice.getAddress());
```

SOAP request example

Client invocation of the getDeliveryDevice operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
  xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getDeliveryDevice xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c0a0</identifier>
  </getDeliveryDevice>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getDeliveryDevice operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <getDeliveryDeviceResponse xmlns="http://xml.spss.com/notification/remote">
    <ns1:deliveryDevice protocolType="smtp" address="jjones@yahoo.com"
       xmlns:ns1="http://xml.spss.com/notification">
      <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c0a0</ns1:identifier>
    </ns1:deliveryDevice>
   </getDeliveryDeviceResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getDeliveryDevices operation

Returns all delivery devices for a specified subscriber.

Input fields

The following table lists the input fields for the getDeliveryDevices operation.

Table 4-39
Fields for getDeliveryDevices

Field	Type/Valid Values	Description
identifier	string	

Return information

The following table identifies the information returned by the getDeliveryDevices operation.

Table 4-40
Return Value

Type	Description
deliveryDevice[]	Represents a device that can receive notifications.

Java example

The information available in the DeliveryDevice objects returned by the getDeliveryDevices operation includes the following:

- Protocal type for the device
- Address associated with the device
- Device identifier

The following example iterates through the returned objects, using the getProtocolType, getAddress, and getIdentifier methods to access the delivery device characteristics.

```
String subscriberIdentifier = "0a0a4aac00072ffb000001094fa9f57ea2df";
DeliveryDevice[] dDevice = stub.getDeliveryDevices(subscriberIdentifier);
```

```
for (int j = 0; j < dDevice.length; j++) {
  System.out.println("Identifier: " + dDevice[j].getIdentifier());
  System.out.println("Protocol Type: " + dDevice[j].getProtocolType());
  System.out.println("Address: " + dDevice[j].getAddress());
  System.out.println();
}
```

SOAP request example

Client invocation of the getDeliveryDevices operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
  xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getDeliveryDevices xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac00072ffb000001094fa9f57ea2df</identifier>
  </getDeliveryDevices>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getDeliveryDevices operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getDeliveryDevicesResponse xmlns="http://xml.spss.com/notification/remote">
   <deliveryDevice protocolType="smtp" address="pemuser@mycompany.com"
    xmlns="http://xml.spss.com/notification">
    <identifier>0a0a4aac00072ffb000001094fa9f57ea2e0</identifier>
   </deliveryDevice>
  </getDeliveryDevicesResponse>
 </soapenv:Body>
```

```
</soapenv:Envelope>
```

The getDerivedEventTypes operation

Returns all event types derived from a specified event type.

Input fields

The following table lists the input fields for the getDerivedEventTypes operation.

Table 4-41
Fields for getDerivedEventTypes

Field	Type/Valid Values	Description
identifier	string	An identifier for an event type.

Return information

The following table identifies the information returned by the getDerivedEventTypes operation.

Table 4-42
Return Value

Type	Description
eventType[]	Identifies a type of the event within its notification domain .

Java example

The information available in the EventType objects returned by the getDerivedEventTypes operation includes the following:

- Domain name
- Event type name
- Event type properties
- Identifier for the event type

The following example iterates through the returned objects, using accessor methods to retrieve the individual event type characteristics.

```
String typeIdentifier = "000000000000000000000000000000001f5";
EventType[] eventType = stub.getDerivedEventTypes(typeIdentifier);
for (int j = 0; j < eventType.length; j++) {
  System.out.println("Identifier: " + eventType[j].getIdentifier());
  System.out.println("Domain: " + eventType[j].getDomainName());
  System.out.println("Type name: " + eventType[j].getTypeName());
  PropertyValue[] propValue = eventType[j].getPropertyValue();
  for (int k = 0; k < propValue.length; k++) {
    System.out.println("Property: " + propValue[k].getName() +
      " (type = " + propValue[k].getTypeCode() + ") = " +
      propValue[k].getDescription);
```

```
  }
  System.out.println();
}
```

SOAP request example

Client invocation of the getDerivedEventTypes operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
   xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getDerivedEventTypes xmlns="http://xml.spss.com/notification/remote">
   <identifier>000000000000000000000000000000001f5</identifier>
  </getDerivedEventTypes>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getDerivedEventTypes operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getDerivedEventTypesResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:eventType domainName="Repository" typeName="FolderEvent"
     xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>000000000000000000000000000001fa</ns1:identifier>
    <ns1:property descriptionKey="$$repository/etr_folder_child_http_desc"
      labelKey="$$repository/etr_folder_child_http"
      description="The HTTP URL for the the child resource for the folder event."
      label="Child HTTP" typeCode="string" name="ChildHttpUrl">
     <ns1:identifier>000000000000000000000000000000020d</ns1:identifier>
    </ns1:property>
```

```
<ns1:property descriptionKey="$$repository/etr_folder_child_spsscr_desc"
   labelKey="$$repository/etr_folder_child_spsscr"
   description="The SPSSCR URL for the the child resource for the folder event."
   label="Child SPSSCR" typeCode="string" name="ChildSpssCrUrl">
  <ns1:identifier>00000000000000000000000000000000020e</ns1:identifier>
</ns1:property>
<ns1:property descriptionKey="$$repository/etr_folder_child_path_desc"
   labelKey="$$repository/etr_folder_child_path"
   description="The path of the child resource for the folder event."
   label="Child Path" typeCode="string" name="ChildPath">
  <ns1:identifier>00000000000000000000000000000000020c</ns1:identifier>
</ns1:property>
<ns1:property descriptionKey="$$repository/etr_folder_child_name_desc"
   labelKey="$$repository/etr_folder_child_name"
   description="The name of the child resource for the folder event."
   label="Child Name" typeCode="string" name="ChildName">
  <ns1:identifier>00000000000000000000000000000000020b</ns1:identifier>
</ns1:property>
<ns1:property descriptionKey="$$repository/etr_path_ids_desc"
   labelKey="$$repository/etr_path_ids_name"
   description="The path identifiers of the resource separated by colons."
   label="Path Identifiers" typeCode="string" name="PathIdentifiers"
   inheritedFrom="000000000000000000000000000000001f5">
  <ns1:identifier>00000000000000000000000000000000207</ns1:identifier>
</ns1:property>
<ns1:property descriptionKey="$$repository/etr_resource_spsscr_desc"
   labelKey="$$repository/etr_resource_spsscr_url"
   description="The SPSSCR URL of the resource." label="SPSSCR URL"
   typeCode="string" name="ResourceSpssCrUrl"
   inheritedFrom="000000000000000000000000000000001f5">
  <ns1:identifier>00000000000000000000000000000000020a</ns1:identifier>
</ns1:property>
<ns1:property descriptionKey="$$repository/etr_resource_path_desc"
   labelKey="$$repository/etr_resource_path"
   description="The path of the resource in the repository." label="Resource Path"
   typeCode="string" name="ResourcePath"
   inheritedFrom="000000000000000000000000000000001f5">
  <ns1:identifier>00000000000000000000000000000000205</ns1:identifier>
</ns1:property>
<ns1:property descriptionKey="$$repository/etr_resource_id_desc"
   labelKey="$$repository/etr_resource_id"
   description="The identifier of the subscribable resource." label="Resource ID"
   typeCode="string" name="ResourceID"
   inheritedFrom="000000000000000000000000000000001f5">
  <ns1:identifier>00000000000000000000000000000001f6</ns1:identifier>
</ns1:property>
<ns1:property descriptionKey="$$repository/etr_action_type_desc"
   labelKey="$$repository/etr_action_type"
   description="The type of the user action, for example, new file created,
     new version of the file created and so on."
   label="Action Type" typeCode="string" name="ActionType"
   inheritedFrom="000000000000000000000000000000001f5">
```

```
    <ns1:identifier>00000000000000000000000000000000204</ns1:identifier>
   </ns1:property>
   <ns1:property descriptionKey="$$repository/etr_resource_http_url_desc"
     labelKey="$$repository/etr_resource_http_url"
     description="The HTTP URL of the resource." label="Resource HTTP"
     typeCode="string" name="ResourceHttpUrl"
     inheritedFrom="000000000000000000000000000000001f5">
    <ns1:identifier>00000000000000000000000000000000209</ns1:identifier>
   </ns1:property>
   <ns1:property descriptionKey="$$repository/etr_resource_name_desc"
     labelKey="$$repository/etr_resource_name"
     description="The name of the resource." label="Resource Name" typeCode="string"
     name="ResourceName" inheritedFrom="000000000000000000000000000000001f5">
    <ns1:identifier>00000000000000000000000000000000206</ns1:identifier>
   </ns1:property>
  </ns1:eventType>
  <ns2:eventType domainName="Repository" typeName="FileEvent"
    xmlns:ns2="http://xml.spss.com/notification">
   <ns2:identifier>000000000000000000000000000000001ff</ns2:identifier>
   <ns2:property descriptionKey="$$repository/etr_mime_type_desc"
     labelKey="$$repository/etr_mime_type"
     description="The MIME type of the resource." label="MIME type" typeCode="string"
     name="MimeType">
    <ns2:identifier>000000000000000000000000000000001f7</ns2:identifier>
   </ns2:property>
   <ns2:property descriptionKey="$$repository/etr_attachments_desc"
     labelKey="$$repository/etr_attachments"
     description="If true the content of the resource should be sent as a binary attachment."
     label="Attachments" typeCode="boolean" name="Attachments">
    <ns2:identifier>000000000000000000000000000000001f8</ns2:identifier>
   </ns2:property>
   <ns2:property descriptionKey="$$repository/etr_path_ids_desc"
     labelKey="$$repository/etr_path_ids_name"
     description="The path identifiers of the resource separated by colons."
     label="Path Identifiers" typeCode="string" name="PathIdentifiers"
     inheritedFrom="000000000000000000000000000000001f5">
    <ns2:identifier>00000000000000000000000000000000207</ns2:identifier>
   </ns2:property>
   <ns2:property descriptionKey="$$repository/etr_resource_spsscr_desc"
     labelKey="$$repository/etr_resource_spsscr_url"
     description="The SPSSCR URL of the resource." label="SPSSCR URL"
     typeCode="string" name="ResourceSpssCrUrl"
     inheritedFrom="000000000000000000000000000000001f5">
    <ns2:identifier>000000000000000000000000000000020a</ns2:identifier>
   </ns2:property>
   <ns2:property descriptionKey="$$repository/etr_resource_path_desc"
     labelKey="$$repository/etr_resource_path"
     description="The path of the resource in the repository." label="Resource Path"
     typeCode="string" name="ResourcePath"
     inheritedFrom="000000000000000000000000000000001f5">
    <ns2:identifier>00000000000000000000000000000000205</ns2:identifier>
   </ns2:property>
```

```
    <ns2:property descriptionKey="$$repository/etr_resource_id_desc"
      labelKey="$$repository/etr_resource_id"
      description="The identifier of the subscribable resource." label="Resource ID"
      typeCode="string" name="ResourceID"
      inheritedFrom="00000000000000000000000000000000001f5">
     <ns2:identifier>00000000000000000000000000000000001f6</ns2:identifier>
    </ns2:property>
    <ns2:property descriptionKey="$$repository/etr_action_type_desc"
      labelKey="$$repository/etr_action_type"
      description="The type of the user action, for example, new file created,
        new version of the file created and so on."
      label="Action Type" typeCode="string" name="ActionType"
      inheritedFrom="00000000000000000000000000000000001f5">
     <ns2:identifier>00000000000000000000000000000000204</ns2:identifier>
    </ns2:property>
    <ns2:property descriptionKey="$$repository/etr_resource_http_url_desc"
      labelKey="$$repository/etr_resource_http_url"
      description="The HTTP URL of the resource." label="Resource HTTP"
      typeCode="string" name="ResourceHttpUrl"
      inheritedFrom="00000000000000000000000000000000001f5">
     <ns2:identifier>00000000000000000000000000000000209</ns2:identifier>
    </ns2:property>
    <ns2:property descriptionKey="$$repository/etr_resource_name_desc"
      labelKey="$$repository/etr_resource_name"
      description="The name of the resource." label="Resource Name" typeCode="string"
      name="ResourceName" inheritedFrom="00000000000000000000000000000000001f5">
     <ns2:identifier>00000000000000000000000000000000206</ns2:identifier>
    </ns2:property>
   </ns2:eventType>
  </getDerivedEventTypesResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getDistributionList operation

Retrieves the distribution list corresponding to the specified identifier.

Input fields

The following table lists the input fields for the getDistributionList operation.

Table 4-43
Fields for getDistributionList

Field	Type/Valid Values	Description
identifier	string	An identifier for a distribution list.

Return information

The following table identifies the information returned by the getDistributionList operation.

Table 4-44
Return Value

Type	Description
distributionList	Represents a logical grouping of the individual subscribers. For internal use only. This is reserved for future use.

Java example

The information available in the DistributionList object returned by the getDistributionList operation includes the following:

- The list name
- The identifier for the list

The following example uses the getName and getIdentifier methods to access the distribution list characteristics.

```
String listIdentifier = "0a0a4aac0161f10f0000010d8e63c979c698";
DistributionList dList = stub.getDistributionList(listIdentifier);
System.out.println("Identifier " + dList.getIdentifier() +
  " corresponds to distribution list " + dList.getName());
```

SOAP request example

Client invocation of the getDistributionList operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
   soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
   soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getDistributionList xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c698</identifier>
  </getDistributionList>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getDistributionList operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getDistributionListResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:distributionList enabled="true" name="analysts"
      xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c698</ns1:identifier>
   </ns1:distributionList>
  </getDistributionListResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getDistributionLists operation

Retrieves all distribution lists available in the system.

Return information

The following table identifies the information returned by the getDistributionLists operation.

Table 4-45
Return Value

Type	Description
distributionList[]	Represents a logical grouping of the individual subscribers. For internal use only. This is reserved for future use.

Java example

The information available in the DistributionList objects returned by the getDistributionLists operation includes the following:

- The list name
- The identifier for the list

The following example iterates through the returned objects, using the getName and getIdentifier methods to access the distribution list characteristics.

```
DistributionList[] dList = stub.getDistributionLists();
for (int j = 0; j < dList.length; j++) {
  System.out.println("Distribution list " + dList[j].getName() +
    " has an identifier of " dList[j].getIdentifier() + ".");
}
```

SOAP request example

Client invocation of the getDistributionLists operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getDistributionLists xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getDistributionLists operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getDistributionListsResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:distributionList enabled="true" name="managers"
     xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c68e</ns1:identifier>
   </ns1:distributionList>
   <ns2:distributionList enabled="true" name="analysts"
     xmlns:ns2="http://xml.spss.com/notification">
    <ns2:identifier>0a0a4aac0161f10f0000010d8e63c979c698</ns2:identifier>
   </ns2:distributionList>
  </getDistributionListsResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getEventType operation

Returns the event type for a specified event type identifier.

Input fields

The following table lists the input fields for the getEventType operation.

Table 4-46
Fields for getEventType

Field	Type/Valid Values	Description
identifier	string	An identifier for an event type.

Return information

The following table identifies the information returned by the getEventType operation.

Table 4-47
Return Value

Type	Description
eventType	Identifies a type of the event within its notification domain .

Java example

The information available in the EventType object returned by the getEventType operation includes the following:

- Domain name
- Event type name
- Event type properties
- Identifier for the event type

The following example uses accessor methods to retrieve the individual event type characteristics.

```
String typeIdentifier = "0a0a483800a83a1300000102652a7356800d";
EventType eventType = stub.getEventType(typeIdentifier);
System.out.println("Identifier: " + eventType.getIdentifier());
System.out.println("Domain: " + eventType.getDomainName());
System.out.println("Type name: " + eventType.getTypeName());
```

SOAP request example

Client invocation of the getEventType operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
```

```
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getEventType xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a483800a83a1300000102652a7356800d</identifier>
  </getEventType>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getEventType operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getEventTypeResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:eventType domainName="PRMS" typeName="Completion"
     xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a483800a83a1300000102652a7356800d</ns1:identifier>
    <ns1:property descriptionKey="$$prms/etr_job_success_desc"
      labelKey="$$prms/etr_job_success"
      description="The success or failure of the job." label="Job Success"
      typeCode="boolean" name="JobSuccess">
     <ns1:identifier>0a0a483800a83a1300000102652a73568011</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_status_url_desc"
      labelKey="$$prms/etr_job_status_url" description="The job status URL."
      label="Job Status URL" typeCode="string" name="JobStatusURL">
     <ns1:identifier>00000000000000000000000000000000269</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_start_desc"
      labelKey="$$prms/etr_job_start" description="The start of the job."
      label="Job Start" typeCode="timestamp" name="JobStart">
     <ns1:identifier>00000000000000000000000000000000267</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_id_desc" labelKey="$$prms/etr_job_id"
      description="The job identifier." label="Job ID" typeCode="string" name="JobID">
     <ns1:identifier>0a0a483800a83a1300000102652a7356800f</ns1:identifier>
    </ns1:property>
```

```
    <ns1:property descriptionKey="$$prms/etr_job_end_desc" labelKey="$$prms/etr_job_end"
      description="The end of the job." label="Job End" typeCode="timestamp"
      name="JobEnd">
     <ns1:identifier>00000000000000000000000000000000268</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_name_desc"
      labelKey="$$prms/etr_job_name" description="The name of the job."
      label="Job Name" typeCode="string" name="JobName">
     <ns1:identifier>00000000000000000000000000000000266</ns1:identifier>
    </ns1:property>
   </ns1:eventType>
  </getEventTypeResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getEventTypes operation

Returns all event types for a specified notification domain.

Input fields

The following table lists the input fields for the getEventTypes operation.

Table 4-48
Fields for getEventTypes

Field	Type/Valid Values	Description
identifier	string	An identifier for a notification domain.

Return information

The following table identifies the information returned by the getEventTypes operation.

Table 4-49
Return Value

Type	Description
eventType[]	Identifies a type of the event within its notification domain .

Java example

The information available in the EventType objects returned by the getEventTypes operation includes the following:

- Domain name
- Event type name
- Event type properties
- Identifier for the event type

The following example iterates through the returned objects, using accessor methods to retrieve the individual event type characteristics.

```
String domainIdentifier = "0a0a483800a83a1300000102652a7356800a";
EventType[] eventType = stub.getEventTypes(domainIdentifier);
for (int j = 0; j < eventType.length; j++) {
  System.out.println("Identifier: " + eventType[j].getIdentifier());
  System.out.println("Domain: " + eventType[j].getDomainName());
  System.out.println("Type name: " + eventType[j].getTypeName());
  PropertyValue[] propValue = eventType[j].getPropertyValue();
  for (int k = 0; k < propValue.length; k++) {
    System.out.println("Property: " + propValue[k].getName() +
      " (type = " + propValue[k].getTypeCode() + ") = " +
      propValue[k].getDescription);
  }
  System.out.println();
}
```

SOAP request example

Client invocation of the getEventTypes operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
   xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getEventTypes xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a483800a83a1300000102652a7356800a</identifier>
  </getEventTypes>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getEventTypes operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getEventTypesResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:eventType domainName="PRMS" typeName="JobStepCompletion"
     xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>00000000000000000000000000000000259</ns1:identifier>
    <ns1:property descriptionKey="$$prms/etr_job_step_artifacts_desc"
      labelKey="$$prms/etr_job_step_artifacts"
      description="The array of the URLs for the artifacts generated by the job step."
      label="Job Step Artifacts" typeCode="array" name="JobStepArtifacts">
     <ns1:identifier>0000000000000000000000000000000026a</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_step_success_desc"
      labelKey="$$prms/etr_job_step_success"
      description="The job step success or failure." label="Job Step Success"
      typeCode="boolean" name="JobStepSuccess">
     <ns1:identifier>0000000000000000000000000000000025b</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_step_start_desc"
      labelKey="$$prms/etr_job_step_start" description="The start of a job step."
      label="Job Step Start" typeCode="timestamp" name="JobStepStart">
     <ns1:identifier>00000000000000000000000000000000262</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_step_job_name_desc"
      labelKey="$$prms/etr_job_step_job_name"
      description="The job name for this job step." label="Job Name" typeCode="string"
      name="JobName">
     <ns1:identifier>00000000000000000000000000000000264</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_step_status_url_desc"
      labelKey="$$prms/etr_job_step_status_url"
      description="The URL for the job step status." label="Job Step Status URL"
      typeCode="string" name="JobStepStatusURL">
     <ns1:identifier>00000000000000000000000000000000265</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_step_id_desc"
      labelKey="$$prms/etr_job_step_id" description="The job step identifier."
      label="Job Step ID" typeCode="string" name="JobStepID">
     <ns1:identifier>0000000000000000000000000000000025a</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_step_attachments_desc"
      labelKey="$$prms/etr_job_step_attachments"
      description="If true the generated artifacts published to the repository should
        be sent as binary attachments."
      label="Attachments" typeCode="boolean" name="Attachments">
     <ns1:identifier>00000000000000000000000000000000260</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_step_name_desc"
      labelKey="$$prms/etr_job_step_name" description="The name of the job step."
```

```
      label="Job Step Name" typeCode="string" name="JobStepName">
     <ns1:identifier>00000000000000000000000000000000261</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$prms/etr_job_step_end_desc"
      labelKey="$$prms/etr_job_step_end" description="The end of the job step."
      label="Job End" typeCode="timestamp" name="JobStepEnd">
     <ns1:identifier>00000000000000000000000000000000263</ns1:identifier>
    </ns1:property>
   </ns1:eventType>
   <ns2:eventType domainName="PRMS" typeName="Completion"
     xmlns:ns2="http://xml.spss.com/notification">
    <ns2:identifier>0a0a483800a83a1300000102652a7356800d</ns2:identifier>
    <ns2:property descriptionKey="$$prms/etr_job_success_desc"
      labelKey="$$prms/etr_job_success"
      description="The success or failure of the job." label="Job Success"
      typeCode="boolean" name="JobSuccess">
     <ns2:identifier>0a0a483800a83a1300000102652a73568011</ns2:identifier>
    </ns2:property>
    <ns2:property descriptionKey="$$prms/etr_job_status_url_desc"
      labelKey="$$prms/etr_job_status_url" description="The job status URL."
      label="Job Status URL" typeCode="string" name="JobStatusURL">
     <ns2:identifier>00000000000000000000000000000000269</ns2:identifier>
    </ns2:property>
    <ns2:property descriptionKey="$$prms/etr_job_start_desc"
      labelKey="$$prms/etr_job_start" description="The start of the job."
      label="Job Start" typeCode="timestamp" name="JobStart">
     <ns2:identifier>00000000000000000000000000000000267</ns2:identifier>
    </ns2:property>
    <ns2:property descriptionKey="$$prms/etr_job_id_desc" labelKey="$$prms/etr_job_id"
      description="The job identifier." label="Job ID" typeCode="string" name="JobID">
     <ns2:identifier>0a0a483800a83a1300000102652a7356800f</ns2:identifier>
    </ns2:property>
    <ns2:property descriptionKey="$$prms/etr_job_end_desc" labelKey="$$prms/etr_job_end"
      description="The end of the job." label="Job End" typeCode="timestamp"
      name="JobEnd">
     <ns2:identifier>00000000000000000000000000000000268</ns2:identifier>
    </ns2:property>
    <ns2:property descriptionKey="$$prms/etr_job_name_desc"
      labelKey="$$prms/etr_job_name" description="The name of the job."
      label="Job Name" typeCode="string" name="JobName">
     <ns2:identifier>00000000000000000000000000000000266</ns2:identifier>
    </ns2:property>
   </ns2:eventType>
  </getEventTypesResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getNotificationDomain operation

Retrieves the notification domain corresponding to the specified identifier.

Input fields

The following table lists the input fields for the getNotificationDomain operation.

Table 4-50
Fields for getNotificationDomain

Field	Type/Valid Values	Description
identifier	string	An identifier for a notification domain.

Return information

The following table identifies the information returned by the getNotificationDomain operation.

Table 4-51
Return Value

Type	Description
notificationDomain	Identifies the particular vertical industry domain or application in which the event type is defined.

Java example

The information available in the NotificationDomain object returned by the getNotificationDomain operation includes the following:

- The domain name
- The identifier for the domain

The following example uses the getName and getIdentifier methods to access the notification domain characteristics.

```
String domainIdentifier = "0a0a483800a83a1300000102652a7356800a";
NotificationDomain nDomain = stub.getNotificationDomain(domainIdentifier);
System.out.println("Identifier " + nDomain.getIdentifier() +
  " corresponds to notification domain " + nDomain.getName());
```

SOAP request example

Client invocation of the getNotificationDomain operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
      <wsse:Password xsi:type="xsd:string">password</wsse:Password>
    </wsse:UsernameToken>
   </wsse:Security>
```

```
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
     xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getNotificationDomain xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a483800a83a1300000102652a7356800a</identifier>
  </getNotificationDomain>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getNotificationDomain operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getNotificationDomainResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:notificationDomain name="PRMS" xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a483800a83a1300000102652a7356800a</ns1:identifier>
   </ns1:notificationDomain>
  </getNotificationDomainResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getNotificationDomains operation

Retrieves all notification domains available in the system.

Return information

The following table identifies the information returned by the getNotificationDomains operation.

Table 4-52
Return Value

Type	Description
notificationDomain[]	Identifies the particular vertical industry domain or application in which the event type is defined.

Java example

The information available in the NotificationDomain objects returned by the getNotificationDomains operation includes the following:

- The domain name
- The identifier for the domain

The following example iterates through the returned objects, using the getName and getIdentifier methods to access the notification domain characteristics.

```
NotificationDomain[] nDomain = stub.getNotificationDomains();
for (int j = 0; j < nDomain.length; j++) {
  System.out.println("Notification domain " + nDomain[j].getName() +
    " has an identifier of " nDomain[j].getIdentifier() + ".");
}
```

SOAP request example

Client invocation of the getNotificationDomains operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
   xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getNotificationDomains xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getNotificationDomains operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getNotificationDomainsResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:notificationDomain name="Repository" xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>00000000000000000000000000000001f4</ns1:identifier>
   </ns1:notificationDomain>
   <ns2:notificationDomain name="PRMS" xmlns:ns2="http://xml.spss.com/notification">
    <ns2:identifier>0a0a483800a83a1300000102652a7356800a</ns2:identifier>
   </ns2:notificationDomain>
```

```
  </getNotificationDomainsResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getObjects operation

Retrieves notification objects from the repository that match a specified criterion. Available criteria limit the retrieval to one of the following object types:

- Distribution lists
- Event types
- Notification providers
- Subscribables
- Subscribers
- Subscriber specifiers
- Subscriptions
- Subscription selectors

To limit the returned objects to a subset of all available objects matching the criterion type, define values for specific criterion characteristics. For example, the criterion could limit the returned set to all multicasted subscriptions or to a subscriber having a specific principal ID.

Input fields

The following table lists the input fields for the getObjects operation.

Table 4-53
Fields for getObjects

Field	Type/Valid Values	Description
querySpecification	querySpecification	A query specification for the notification service.

Return information

The following table identifies the information returned by the getObjects operation.

Table 4-54
Return Value

Type	Description
queryResult	Results of the query for the notification service.

Java example

To retrieve notification objects from the repository:

1. Create a criterion object for the type of object to be retrieved.

2. Define specific properties of the criterion as desired.
3. Assign the criterion object to a QuerySpecification object using the appropriate set method.
4. Supply the getObjects operation with the query specification.

   The following example retrieves all repository items to which a subscriber can subscribe, sending the item identifiers and types to the console.

```
SubscribableCriterion subscribableCrit = new SubscribableCriterion();

QuerySpecification querySpec = new QuerySpecification();
querySpec.setSubscribableCriterion(subscribableCrit);
QueryResult result = stub.getObjects(querySpec);

IdentificationSpecifier[] idSpecifier = result.getIdentificationSpecifier();
for (int j = 0; j < idSpecifier.length; j++) {
  System.out.println("Identifier: " + idSpecifier[j].getIdentifier());
  System.out.println("Type: " + idSpecifier[j].getObjectType());
  System.out.println();
}
```

SOAP request example

Client invocation of the getObjects operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username>validUser</wsse:Username>
      <wsse:Password>password</wsse:Password>
    </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
   <getObjects xmlns="http://xml.spss.com/notification/remote">
    <ns2:querySpecification xmlns:ns2="http://xml.spss.com/notification">
      <ns2:subscribableCriterion/>
    </ns2:querySpecification>
   </getObjects>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getObjects operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getObjectsResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:queryResult xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identificationSpecifier identifier="0a0a4aac43d009f10000010dd13e0acd8013"
      objectType="HierarchicalContent.Folder"/>
    <ns1:identificationSpecifier identifier="0a0a4aac43d009f10000010dd13e0acd8292"
      objectType="HierarchicalContent.File"/>
    <ns1:identificationSpecifier identifier="0a0a4aac43d009f10000010dd13e0acd8534"
      objectType="ProcessManagement.EventCluster"/>
    <ns1:identificationSpecifier identifier="0a0a4aac43d009f10000010dd13e0acd8668"
      objectType="HierarchicalContent.File"/>
    <ns1:identificationSpecifier identifier="0a0a4aacfe9747c10000010dd18630f58823"
      objectType="ProcessManagement.WorkEvent"/>
    <ns1:identificationSpecifier identifier="0a0a4aacfe9747c10000010dd18630f58934"
      objectType="HierarchicalContent.File"/>
    <ns1:identificationSpecifier identifier="0a0a4aacfe9747c10000010dd18630f58a54"
      objectType="ProcessManagement.WorkEvent"/>
   </ns1:queryResult>
  </getObjectsResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getParentEventType operation

Returns the event type (if any) from which a specified event type is derived.

Input fields

The following table lists the input fields for the getParentEventType operation.

Table 4-55
Fields for getParentEventType

Field	Type/Valid Values	Description
identifier	string	An identifier for an event type.

Return information

The following table identifies the information returned by the getParentEventType operation.

Table 4-56
Return Value

Type	Description
eventType	Identifies a type of the event within its notification domain .

Java example

The information available in the EventType object returned by the getParentEventType operation includes the following:

- Domain name
- Event type name
- Event type properties
- Identifier for the event type

The following example uses accessor methods to retrieve the individual event type characteristics.

```
String typeIdentifier = "000000000000000000000000000000001ff";
EventType eventType = stub.getParentEventType(typeIdentifier);
System.out.println("Identifier: " + eventType.getIdentifier());
System.out.println("Domain: " + eventType.getDomainName());
System.out.println("Type name: " + eventType.getTypeName());
```

SOAP request example

Client invocation of the getParentEventType operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
   xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getParentEventType xmlns="http://xml.spss.com/notification/remote">
   <identifier>000000000000000000000000000000001ff</identifier>
  </getParentEventType>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getParentEventType operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getParentEventTypeResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:eventType domainName="Repository" typeName="ResourceEvent"
     xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>000000000000000000000000000000001f5</ns1:identifier>
    <ns1:property descriptionKey="$$repository/etr_path_ids_desc"
      labelKey="$$repository/etr_path_ids_name"
      description="The path identifiers of the resource separated by colons."
      label="Path Identifiers" typeCode="string" name="PathIdentifiers">
     <ns1:identifier>000000000000000000000000000000000207</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$repository/etr_resource_spsscr_desc"
      labelKey="$$repository/etr_resource_spsscr_url"
      description="The SPSSCR URL of the resource." label="SPSSCR URL"
      typeCode="string" name="ResourceSpssCrUrl">
     <ns1:identifier>000000000000000000000000000000020a</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$repository/etr_resource_path_desc"
      labelKey="$$repository/etr_resource_path"
      description="The path of the resource in the repository." label="Resource Path"
      typeCode="string" name="ResourcePath">
     <ns1:identifier>000000000000000000000000000000000205</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$repository/etr_resource_id_desc"
      labelKey="$$repository/etr_resource_id"
      description="The identifier of the subscribable resource." label="Resource ID"
      typeCode="string" name="ResourceID">
     <ns1:identifier>000000000000000000000000000000001f6</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$repository/etr_action_type_desc"
      labelKey="$$repository/etr_action_type"
      description="The type of the user action, for example, new file created,
        new version of the file created and so on."
      label="Action Type" typeCode="string" name="ActionType">
     <ns1:identifier>000000000000000000000000000000000204</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$repository/etr_resource_http_url_desc"
      labelKey="$$repository/etr_resource_http_url"
      description="The HTTP URL of the resource." label="Resource HTTP"
      typeCode="string" name="ResourceHttpUrl">
     <ns1:identifier>000000000000000000000000000000000209</ns1:identifier>
    </ns1:property>
    <ns1:property descriptionKey="$$repository/etr_resource_name_desc"
```

```
        labelKey="$$repository/etr_resource_name"
        description="The name of the resource." label="Resource Name" typeCode="string"
        name="ResourceName">
       <ns1:identifier>00000000000000000000000000000000206</ns1:identifier>
      </ns1:property>
     </ns1:eventType>
    </getParentEventTypeResponse>
   </soapenv:Body>
</soapenv:Envelope>
```

The getSubscriber operation

Retrieves the subscriber corresponding to the specified identifier.

Input fields

The following table lists the input fields for the getSubscriber operation.

Table 4-57
Fields for getSubscriber

Field	Type/Valid Values	Description
identifier	string	An identifier for a subscriber.

Return information

The following table identifies the information returned by the getSubscriber operation.

Table 4-58
Return Value

Type	Description
subscriber	Represents an individual subscriber.

Java example

The information available in the Subscriber object returned by the getSubscriber operation includes the following:

- Principal ID for the subscriber
- Subscriber identifier

The following example uses the getPrincipalID and getIdentifier methods to access the subscriber characteristics.

```
String subscriberIdentifier = "0a0a4aac0161f10f0000010d8e63c979c09f";
Subscriber subscriber = stub.getSubscriber(subscriberIdentifier);
System.out.println("Identifier " + subscriber.getIdentifier() +
  " corresponds to subscriber " + subscriber.getName());
```

SOAP request example

Client invocation of the getSubscriber operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getSubscriber xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c09f</identifier>
  </getSubscriber>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getSubscriber operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getSubscriberResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:subscriber enabled="true" principalID="//u/smtp/jjones@spss.com"
     xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c09f</ns1:identifier>
   </ns1:subscriber>
  </getSubscriberResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getSubscribers operation

Retrieves all subscribers available in the system.

Return information

The following table identifies the information returned by the getSubscribers operation.

Table 4-59
Return Value

Type	Description
subscriber[]	Represents an individual subscriber.

Java example

The information available in the Subscriber objects returned by the getSubscribers operation includes the following:

- Principal ID for the subscriber
- Subscriber identifier

The following example iterates through the returned objects, using the getPrincipalID and getIdentifier methods to access the subscriber characteristics.

```
Subscriber[] subscriber = stub.getSubscribers();
for (int j = 0; j < subscriber.length; j++) {
  System.out.println("Subscriber " + subscriber[j].getPrincipalID() +
    " has an identifier of " subscriber[j].getIdentifier() + ".");
}
```

SOAP request example

Client invocation of the getSubscribers operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
      <wsse:Password xsi:type="xsd:string">password</wsse:Password>
    </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
      xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
   <getSubscribers xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getSubscribers operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getSubscribersResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:subscriber enabled="true" principalID="//u/smtp/kkreuter@spss.com"
      xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a4aac0161f10f0000010d8e63c9798f11</ns1:identifier>
   </ns1:subscriber>
   <ns2:subscriber enabled="true" principalID="//uNative//admin"
      xmlns:ns2="http://xml.spss.com/notification">
    <ns2:identifier>0a0a4aac0161f10f0000010d8e63c9799d9e</ns2:identifier>
   </ns2:subscriber>
   <ns3:subscriber enabled="true" principalID="//u/smtp/jjones@spss.com"
      xmlns:ns3="http://xml.spss.com/notification">
    <ns3:identifier>0a0a4aac0161f10f0000010d8e63c979c09f</ns3:identifier>
   </ns3:subscriber>
   <ns4:subscriber enabled="true" principalID="//u/smtp/bbrever@yahoo.com"
      xmlns:ns4="http://xml.spss.com/notification">
    <ns4:identifier>0a0a4aac0161f10f0000010d8e63c979c0d6</ns4:identifier>
   </ns4:subscriber>
  </getSubscribersResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getSubscription operation

Returns the subscription for a specified subscription identifier.

Input fields

The following table lists the input fields for the getSubscription operation.

Table 4-60
Fields for getSubscription

Field	Type/Valid Values	Description
identifier	string	An identifier for a subscription.

Return information

The following table identifies the information returned by the getSubscription operation.

Table 4-61
Return Value

Type	Description
subscription	Represents a single subscription.

Java example

The information available in the Subscription object returned by the getSubscription operation includes the following:

- Principal ID of the subscriber
- Boolean indicator of whether or not the subscription is multicasted
- Boolean indicator of whether or not the subscription is scheduled
- Subscription selector identifier for the subscription
- Values for the subscription properties
- Subscription identifier

The following example uses a variety of accessor methods to retrieve the individual subscription characteristics.

```
String subscriptionIdentifier = "0a0a4aac0161f10f0000010d8e63c979c098";
Subscription subscription = stub.getSubscription(subscriptionIdentifier);
System.out.println("Identifier: " + subscription.getIdentifier());
System.out.println("Principal ID: " + subscription.getPrincipalID());
if (subscription.isMulticasted()) {
  System.out.println("Multicasted");
}
if (subscription.isScheduled()) {
  System.out.println("Scheduled");
} else {
  System.out.println("Not scheduled");
}
System.out.println("Selector Identifier: " +
  subscription.getSubscriptionSelectorIdentifier());
PropertyValue[] propValue = subscription[j].getPropertyValue();
for (int k = 0; k < propValue.length; k++) {
  System.out.println("Property " + propValue[k].getName() +
   " (type = " + propValue[k].getTypeCode() +
   " ) has a value of" + propValue[k].getValue() + ".");
}
System.out.println();
```

SOAP request example

Client invocation of the getSubscription operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
```

```
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
  xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getSubscription xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c098</identifier>
  </getSubscription>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getSubscription operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getSubscriptionResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:subscription subscriptionSelectorIdentifier="0a0a483800a83a1300000102652a73568013"
      enabled="true" scheduled="false" multicasted="true" principalID="//uNative//admin"
      xmlns:ns1="http://xml.spss.com/notification">
    <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c098</ns1:identifier>
    <ns1:propertyValue typeCode="boolean" name="JobSuccess$0">
     <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c09a</ns1:identifier>
     <ns1:value>true</ns1:value>
    </ns1:propertyValue>
    <ns1:propertyValue typeCode="string" name="JobID$0">
     <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c099</ns1:identifier>
     <ns1:value>0a0a4aac0161f10f0000010d8e63c9798ebd</ns1:value>
    </ns1:propertyValue>
   </ns1:subscription>
  </getSubscriptionResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The getSubscriptions operation

Returns subscriptions for a specified subscriber.

Input fields

The following table lists the input fields for the getSubscriptions operation.

Table 4-62
Fields for getSubscriptions

Field	Type/Valid Values	Description
identifier	string	An identifier for a subscriber.

Return information

The following table identifies the information returned by the getSubscriptions operation.

Table 4-63
Return Value

Type	Description
subscription[]	Represents a single subscription.

Java example

The information available in the Subscription objects returned by the getSubscriptions operation includes the following:

- Principal ID of the subscriber
- Boolean indicator of whether or not the subscription is multicasted
- Boolean indicator of whether or not the subscription is scheduled
- Subscription selector identifier for the subscription
- Values for the subscription properties
- Subscription identifier

The following example iterates through the returned objects, using accessor methods to retrieve the individual subscription characteristics.

```
String subscriberIdentifier = "0a0a4aac0161f10f0000010d8e63c979c09f";
Subscription[] subscription = stub.getSubscriptions(subscriberIdentifier);
for (int j = 0; j < subscription.length; j++) {
  System.out.println("Identifier: " + subscription[j].getIdentifier());
  System.out.println("Principal ID: " + subscription[j].getPrincipalID());
  if (subscription[j].isMulticasted()) {
    System.out.println("Multicasted");
  }
  if (subscription[j].isScheduled()) {
    System.out.println("Scheduled");
  } else {
    System.out.println("Not scheduled");
  }
```

```
    System.out.println("Selector Identifier: " +
      subscription[j].getSubscriptionSelectorIdentifier());
    PropertyValue[] propValue = subscription[j].getPropertyValue();
    for (int k = 0; k < propValue.length; k++) {
      System.out.println("Property " + propValue[k].getName() +
        " (type = " + propValue[k].getTypeCode() +
        ") has a value of" + propValue[k].getValue() + ".");
    }
    System.out.println();
  }
```

SOAP request example

Client invocation of the getSubscriptions operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
  xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getSubscriptions xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a4aac0161f10f0000010d8e63c979c09f</identifier>
  </getSubscriptions>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getSubscriptions operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getSubscriptionsResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:subscription subscriptionSelectorIdentifier="0a0a483800a83a1300000102652a73568013"
     enabled="true" scheduled="false" multicasted="true" principalID="//uNative//validUser"
```

```
      xmlns:ns1="http://xml.spss.com/notification">
     <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c098</ns1:identifier>
     <ns1:propertyValue typeCode="boolean" name="JobSuccess$0">
      <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c09a</ns1:identifier>
      <ns1:value>true</ns1:value>
     </ns1:propertyValue>
     <ns1:propertyValue typeCode="string" name="JobID$0">
      <ns1:identifier>0a0a4aac0161f10f0000010d8e63c979c099</ns1:identifier>
      <ns1:value>0a0a4aac0161f10f0000010d8e63c9798ebd</ns1:value>
     </ns1:propertyValue>
    </ns1:subscription>
   </getSubscriptionsResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

The getSubscriptionSelector operation

Retrieves the subscription selector for a specified selector identifier.

Input fields

The following table lists the input fields for the getSubscriptionSelector operation.

Table 4-64
Fields for getSubscriptionSelector

Field	Type/Valid Values	Description
identifier	string	An identifier for a subscription selector.

Return information

The following table identifies the information returned by the getSubscriptionSelector operation.

Table 4-65
Return Value

Type	Description
subscriptionSelector	Defines a subscription selector for the given event type.

Java example

The information available in the SubscriptionSelector object returned by the getSubscriptionSelector operation includes the following:

- Selector name
- Filter expression
- Compiled filter expression
- Selector identifier

The following example uses various accessor methods to retrieve the individual subscription selector characteristics.

```
String selectorIdentifier = "0a0a483800a83a1300000102652a73568013";
SubscriptionSelector selector = stub.getSubscriptionSelector(selectorIdentifier);
System.out.println("Identifier: " + selector.getIdentifier());
System.out.println("Name: " + selector.getName());
System.out.println("Filter expression: " + selector.getFilterExpression());
System.out.println("Compiled filter expression: " +
  selector.getCompiledFilterExpression());
System.out.println();
```

SOAP request example

Client invocation of the getSubscriptionSelector operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
  xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <getSubscriptionSelector xmlns="http://xml.spss.com/notification/remote">
   <identifier>0a0a483800a83a1300000102652a73568013</identifier>
  </getSubscriptionSelector>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getSubscriptionSelector operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getSubscriptionSelectorResponse xmlns="http://xml.spss.com/notification/remote">
   <ns1:subscriptionSelector
```

```
      filterExpression="JobID=='JobID' &amp;amp;&amp;amp; JobSuccess==true"
      compiledFilterExpression="JobID$0=='${JobID}' &amp;amp;&amp;amp; JobSuccess$0==${JobSuccess}"
      name="prms_jobid_completion" xmlns:ns1="http://xml.spss.com/notification">
     <ns1:identifier>0a0a483800a83a1300000102652a73568013</ns1:identifier>
    </ns1:subscriptionSelector>
   </getSubscriptionSelectorResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

The getSubscriptionSelectors operation

Retrieves all available subscription selectors for a specified event type. In no event type is specified, the operation returns all subscription selectors in the system.

Input fields

The following table lists the input fields for the getSubscriptionSelectors operation.

Table 4-66
Fields for getSubscriptionSelectors

Field	Type/Valid Values	Description
identifier	string	An identifier for an event type.

Return information

The following table identifies the information returned by the getSubscriptionSelectors operation.

Table 4-67
Return Value

Type	Description
subscriptionSelector[]	Defines a subscription selector for the given event type.

Java example

The information available in the SubscriptionSelector objects returned by the getSubscriptionSelectors operation includes the following:

- Selector name
- Filter expression
- Compiled filter expression
- Selector identifier

The following example iterates through the returned objects, using accessor methods to retrieve the individual subscription selector characteristics.

```
SubscriptionSelector[] selector = stub.getSubscriptionSelectors();
for (int j = 0; j < selector.length; j++) {
  System.out.println("Identifier: " + selector[j].getIdentifier());
```

```
  System.out.println("Name: " + selector[j].getName());
  System.out.println("Filter expression: " + selector[j].getFilterExpression());
  System.out.println("Compiled filter expression: " +
    selector[j].getCompiledFilterExpression());
  System.out.println();
}
```

SOAP request example

Client invocation of the getSubscriptionSelectors operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
     <wsse:UsernameToken>
      <wsse:Username>validUser</wsse:Username>
      <wsse:Password>password</wsse:Password>
     </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
     en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
   <getSubscriptionSelectors xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getSubscriptionSelectors operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <getSubscriptionSelectorsResponse xmlns="http://xml.spss.com/notification/remote">
    <ns1:subscriptionSelector
       filterExpression="ResourceID rlike '${ResourceID}' &amp;amp;&amp;amp; Attachments==false
         &amp;amp;&amp;amp; MimeType like '${MimeType}'"
       compiledFilterExpression="ResourceID$0 rlike '${ResourceID}'
         &amp;amp;&amp;amp; Attachments$0==${Attachments} &amp;amp;&amp;amp; MimeType$0 like '${MimeType}'"
       name="selector_folder_link" xmlns:ns1="http://xml.spss.com/notification">
```

```
 <ns1:identifier>00000000000000000000000000000001fb</ns1:identifier>
</ns1:subscriptionSelector>
<ns2:subscriptionSelector
   filterExpression="ResourceID rlike '${ResourceID}' &amp;amp;&amp;amp; Attachments==true
    &amp;amp;&amp;amp; MimeType like '${MimeType}'"
   compiledFilterExpression="ResourceID$0 rlike '${ResourceID}'
    &amp;amp;&amp;amp; Attachments$0==${Attachments} &amp;amp;&amp;amp; MimeType$0 like '${MimeType}'"
   name="selector_folder_attachment" xmlns:ns2="http://xml.spss.com/notification">
 <ns2:identifier>00000000000000000000000000000001fd</ns2:identifier>
</ns2:subscriptionSelector>
<ns3:subscriptionSelector
   filterExpression="ResourceID=='${ResourceID}' &amp;amp;&amp;amp; Attachments==false"
   compiledFilterExpression="ResourceID$0=='${ResourceID}'
    &amp;amp;&amp;amp; Attachments$0==${Attachments}"
   name="selector_file_link" xmlns:ns3="http://xml.spss.com/notification">
 <ns3:identifier>00000000000000000000000000000200</ns3:identifier>
</ns3:subscriptionSelector>
<ns4:subscriptionSelector
   filterExpression="ResourceID=='${ResourceID}' &amp;amp;&amp;amp; Attachments==true"
   compiledFilterExpression="ResourceID$0=='${ResourceID}'
    &amp;amp;&amp;amp; Attachments$0==${Attachments}"
   name="selector_file_attachment" xmlns:ns4="http://xml.spss.com/notification">
 <ns4:identifier>00000000000000000000000000000202</ns4:identifier>
</ns4:subscriptionSelector>
<ns5:subscriptionSelector filterExpression="ResourceID rlike '${ResourceID}'"
   compiledFilterExpression="ResourceID$0 rlike '${ResourceID}'" name="selector_folder"
   xmlns:ns5="http://xml.spss.com/notification">
 <ns5:identifier>00000000000000000000000000000208</ns5:identifier>
</ns5:subscriptionSelector>
<ns6:subscriptionSelector
   filterExpression="JobStepID=='JobStepID' &amp;amp;&amp;amp; JobStepSuccess==true
    &amp;amp;&amp;amp; Attachments=true"
   compiledFilterExpression="JobStepID$0=='${JobStepID}'
    &amp;amp;&amp;amp; JobStepSuccess$0==${JobStepSuccess} &amp;amp;&amp;amp; Attachments$0==${Attachments}"
   name="prms_jobstep_completion_success" xmlns:ns6="http://xml.spss.com/notification">
 <ns6:identifier>0000000000000000000000000000025c</ns6:identifier>
</ns6:subscriptionSelector>
<ns7:subscriptionSelector
   filterExpression="JobStepID=='JobStepID' &amp;amp;&amp;amp; JobStepSuccess==false
    &amp;amp;&amp;amp; Attachments=true"
   compiledFilterExpression="JobStepID$0=='${JobStepID}'
    &amp;amp;&amp;amp; JobStepSuccess$0==${JobStepSuccess} &amp;amp;&amp;amp; Attachments$0==${Attachments}"
   name="prms_jobstep_completion_failure" xmlns:ns7="http://xml.spss.com/notification">
 <ns7:identifier>0000000000000000000000000000025e</ns7:identifier>
</ns7:subscriptionSelector>
<ns8:subscriptionSelector
   filterExpression="JobID=='JobID' &amp;amp;&amp;amp; JobSuccess==true"
   compiledFilterExpression="JobID$0=='${JobID}' &amp;amp;&amp;amp; JobSuccess$0==${JobSuccess}"
   name="prms_jobid_completion" xmlns:ns8="http://xml.spss.com/notification">
 <ns8:identifier>0a0a483800a83a1300000102652a73568013</ns8:identifier>
</ns8:subscriptionSelector>
<ns9:subscriptionSelector filterExpression="JobSuccess==true"
```

```
      compiledFilterExpression="JobSuccess$0==${JobSuccess}" name="prms_completion"
      xmlns:ns9="http://xml.spss.com/notification">
     <ns9:identifier>0a0a483800a83a1300000102652a73568015</ns9:identifier>
    </ns9:subscriptionSelector>
   </getSubscriptionSelectorsResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

The getVersion operation

Returns the version number of the service.

Return information

The following table identifies the information returned by the getVersion operation.

Table 4-68
Return Value

Type	Description
string	The service version number.

Java example

To access the version number of the service, call the getVersion operation from the service stub.

```
System.out.println("Service Version =  " + stub.getVersion());
```

SOAP request example

Client invocation of the getVersion operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getVersion xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a getVersion operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <getVersionResponse xmlns="http://xml.spss.com/notification/remote">
   <version>4.20.000</version>
  </getVersionResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

The removeSubscriberFromDistributionList operation

Removes a subscriber from a specified distribution list.

Input fields

The following table lists the input fields for the removeSubscriberFromDistributionList operation.

Table 4-69
Fields for removeSubscriberFromDistributionList

Field	Type/Valid Values	Description
subscriberIdentifier	string	An identifier for a subscriber.
distributionListIdentifier	string	Identifier for the distibution list.

Java example

To remove a subscriber from a distribution list, supply the removeSubscriberFromDistributionList operation with identifiers for the subscriber and the distribution list.

```
String distributionListIdentifier = "0a0a4aac0161f10f0000010d8e63c979c698";
String subscriberIdentifier = "0a0a4aac0161f10f0000010d8e63c979c09f";
stub.removeSubscriberFromDistributionList(subscriberIdentifier, distributionListIdentifier);
```

SOAP request example

Client invocation of the removeSubscriberFromDistributionList operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
```

```
    </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
     en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
  </soapenv:Header>
  <soapenv:Body>
   <removeSubscriberFromDistributionList xmlns="http://xml.spss.com/notification/remote">
    <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c09f</subscriberIdentifier>
    <distributionListIdentifier>0a0a4aac0161f10f0000010d8e63c979c698</distributionListIdentifier>
   </removeSubscriberFromDistributionList>
  </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a removeSubscriberFromDistributionList operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
   <removeSubscriberFromDistributionListResponse xmlns="http://xml.spss.com/notification/remote"/>
  </soapenv:Body>
</soapenv:Envelope>
```

The removeSubscribersFromDistributionList operation

Removes one or more subscribers from a specified distribution list.

Input fields

The following table lists the input fields for the removeSubscribersFromDistributionList operation.

Table 4-70
Fields for removeSubscribersFromDistributionList

Field	Type/Valid Values	Description
subscriberIdentifier	string[]	Identifiers for subscribers.
distributionListIdentifier	string	Identifier for the distribution list.

Java example

To remove one or more subscribers from a distribution list, supply the removeSubscriberFromDistributionList operation with identifiers for the subscribers and the distribution list.

```
String distributionListIdentifier = "0a0a4aacfe9747c10000010dd18630f581cb";
String subscriberIdentifier = "0a0a4aacfe9747c10000010dd18630f581f5";
stub.removeSubscriberFromDistributionList(subscriberIdentifier, distributionListIdentifier);
```

SOAP request example

Client invocation of the removeSubscribersFromDistributionList operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
     <wsse:Username>validUser</wsse:Username>
     <wsse:Password>password</wsse:Password>
    </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
      soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
   <removeSubscribersFromDistributionList xmlns="http://xml.spss.com/notification/remote">
    <subscriberIdentifier>0a0a4aacfe9747c10000010dd18630f581f5</subscriberIdentifier>
    <distributionListIdentifier>0a0a4aacfe9747c10000010dd18630f581cb</distributionListIdentifier>
   </removeSubscribersFromDistributionList>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a removeSubscribersFromDistributionList operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <removeSubscribersFromDistributionListResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The setSubscriber operation

Adds a delivery device for a subscriber to the sytem. If the specified subscriber does not currently exist, the operation creates one.

Input fields

The following table lists the input fields for the setSubscriber operation.

Table 4-71
Fields for setSubscriber

Field	Type/Valid Values	Description
principal	string	Principal ID for the subscriber.
address	string	Fully qualified recipient address for the specified protocol.
protocolType	protocolType	Enumerates delivery protocols.

Java example

To add a delivery device for a subscriber, first determine the principal ID for the subscriber. Available principal IDs can be accessed using the Directory Information service. Supply the setSubscriber operation with the principal ID, the address associated with the ID, and the protocol type.

```
String principalID = "//uNative//validUser";
String address = "pesUser@company.com";
stub.setSubscriber(principalID, address, ProtocolType.SMTP);
```

SOAP request example

Client invocation of the setSubscriber operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
```

```
  <setSubscriber xmlns="http://xml.spss.com/notification/remote">
   <principal>//uNative//validUser</principal>
   <address>pesUser@company.com</address>
   <protocolType xmlns="http://xml.spss.com/notification">smtp</protocolType>
  </setSubscriber>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a setSubscriber operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <setSubscriberResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The subscribe operation

Adds a subscriber to a subscription. Both the subscriber and the subscription must exist in the system.

Input fields

The following table lists the input fields for the subscribe operation.

Table 4-72
Fields for subscribe

Field	Type/Valid Values	Description
subscriberIdentifier	string	An identifier for a subscriber.
subscriptionIdentifier	string	An identifier for a subscription.

Java example

To add a subscriber to a subscription, supply the subscribe operation with strings corresponding to the the identifiers for both items.

```
String subscriberIdentifier = "0a0a4aac0161f10f0000010d8e63c979c09f";
String subscriptionIdentifier = "0a0a4aac0161f10f0000010d8e63c979c098";
stub.subscribe(subscriberIdentifier, subscriptionIdentifier);
```

SOAP request example

Client invocation of the subscribe operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <subscribe xmlns="http://xml.spss.com/notification/remote">
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c09f</subscriberIdentifier>
   <subscriptionIdentifier>0a0a4aac0161f10f0000010d8e63c979c098</subscriptionIdentifier>
  </subscribe>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a subscribe operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <subscribeResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The unsubscribe operation

Removes a subscriber from a subscription.

Input fields

The following table lists the input fields for the unsubscribe operation.

Table 4-73
Fields for unsubscribe

Field	Type/Valid Values	Description
subscriberIdentifier	string	An identifier for a subscriber.
subscriptionIdentifier	string	An identifier for a subscription.

Java example

To remove a subscriber from a subscription, supply the unsubscribe operation with strings corresponding to the the identifiers for both items.

```
String subscriberIdentifier = "0a0a4aac0161f10f0000010d8e63c979c09f";
String subscriptionIdentifier = "0a0a4aac0161f10f0000010d8e63c979c098";
stub.unsubscribe(subscriberIdentifier, subscriptionIdentifier);
```

SOAP request example

Client invocation of the unsubscribe operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <unsubscribe xmlns="http://xml.spss.com/notification/remote">
   <subscriberIdentifier>0a0a4aac0161f10f0000010d8e63c979c09f</subscriberIdentifier>
   <subscriptionIdentifier>0a0a4aac0161f10f0000010d8e63c979c098</subscriptionIdentifier>
  </unsubscribe>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a unsubscribe operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <unsubscribeResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The unsubscribeAll operation

Removes all subscribers from a subscription.

Input fields

The following table lists the input fields for the unsubscribeAll operation.

Table 4-74
Fields for unsubscribeAll

Field	Type/Valid Values	Description
subscriptionIdentifier	string	An identifier for a subscription.

Java example

To remove all subscribers from a subscription, supply the unsubscribeAll operation with the identifier for the subscription.

```
String subscriptionIdentifier = "0a0a4aac0161f10f0000010d8e63c979c098";
stub.unsubscribeAll(subscriptionIdentifier);
```

SOAP request example

Client invocation of the unsubscribeAll operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
```

```
      <wsse:Password>password</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
     soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <unsubscribeAll xmlns="http://xml.spss.com/notification/remote">
   <subscriptionIdentifier>0a0a4aac0161f10f0000010d8e63c979c098</subscriptionIdentifier>
  </unsubscribeAll>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a unsubscribeAll operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <unsubscribeAllResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateContentFormatter operation

Updates the characteristics of an existing content formatter.

Input fields

The following table lists the input fields for the updateContentFormatter operation.

Table 4-75
Fields for updateContentFormatter

Field	Type/Valid Values	Description
contentFormatter	contentFormatter	Handles formatting of the notification message for the appropriate transport protocol.

Java example

To update a content formatter:

1. Call the getContentFormatter operation with a content formatter identifier to return the formatter to be updated. Alternatively, if the identifier is not known, the getContentFormatters operation

could be used to return a vector of all ContentFormatter objects in the system, from which the desired content formatter could be selected.

2. Set updated values for the formatter as needed.
3. Supply the updateContentFormatter operation with the revised content formatter.

   The following code updates the template name for an existing content formatter.

```
String formatterIdentifier = "0a0a4aacd90178eb0000010dea8eaedf802a";
ContentFormatter formatter = stub.getContentFormatter(formatterIdentifier);
formatter.setTemplateName("job_failure_new.xml");
stub.updateContentFormatter(formatter);
```

SOAP request example

Client invocation of the updateContentFormatter operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <updateContentFormatter xmlns="http://xml.spss.com/notification/remote">
   <contentFormatter xmlns="http://xml.spss.com/notification" templateName="job_failure_new.xml"
     protocolType="smtp">
    <identifier>0a0a4aacd90178eb0000010dea8eaedf802a</identifier>
   </contentFormatter>
  </updateContentFormatter>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a updateContentFormatter operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
```

```
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <updateContentFormatterResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateDeliveryDevice operation

Updates the characteristics of an existing delivery device.

Input fields

The following table lists the input fields for the updateDeliveryDevice operation.

Table 4-76
Fields for updateDeliveryDevice

Field	Type/Valid Values	Description
deliveryDevice	deliveryDevice	Represents a device that can receive notifications.

Java example

To update a delivery device:

1. Call the getDeliveryDevice operation with a delivery device identifier to return the device to be updated. Alternatively, if the identifier is not known, the getDeliveryDevices operation could be used to return a vector of all DeliveryDevice objects in the system, from which the desired delivery device could be selected.
2. Set updated values for the delivery device as needed.
3. Supply the updateDeliveryDevice operation with the revised delivery device.

   The following code updates the address for an existing delivery device.

```
String deviceIdentifier = "0a0a4aac0161f10f0000010d8e63c979c0a0";
DeliveryDevice dDevice = stub.getDeliveryDevice(deviceIdentifier);
dDevice.setAddress("jjones@yahoo.com");
stub.updateDeliveryDevice(dDevice);
```

SOAP request example

Client invocation of the updateDeliveryDevice operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
```

```
    soapenv:mustUnderstand="0" xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
    en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <soapenv:Body>
   <updateDeliveryDevice xmlns="http://xml.spss.com/notification/remote">
    <ns2:deliveryDevice protocolType="smtp" address="jjones@yahoo.com"
      xmlns:ns2="http://xml.spss.com/notification">
     <ns2:identifier>0a0a4aac0161f10f0000010d8e63c979c0a0</ns2:identifier>
    </ns2:deliveryDevice>
   </updateDeliveryDevice>
  </soapenv:Body>
 </soapenv:Envelope>
```

SOAP response example

The server responds to a updateDeliveryDevice operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <updateDeliveryDeviceResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateDistributionList operation

Updates the characteristics of an existing distribution list.

Input fields

The following table lists the input fields for the updateDistributionList operation.

Table 4-77
Fields for updateDistributionList

Field	Type/Valid Values	Description
distributionList	distributionList	Represents a logical grouping of the individual subscribers. For internal use only. This is reserved for future use.

Java example

To update a distribution list:

1. Call the getDistributionList operation with a distribution list identifier to return the list to be updated. Alternatively, if the identifier is not known, the getDistributionLists operation could be used to return a vector of all DistributionList objects in the system, from which the desired distribution list could be selected.

2. Set updated values for the list as needed.

3. Supply the updateSubscriber operation with the revised distribution list.

   The following code updates the name for an existing distribution list.

```
String subscriberIdentifier = "0a0a4aacfe9747c10000010dd18630f5804e";
Subscriber subscriber = stub.getSubscriber(subscriberIdentifier);
subscriber.setPrincipalID("//u/smtp/jjones@gmail.com");
stub.updateSubscriber(subscriber);
```

SOAP request example

Client invocation of the updateDistributionList operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <updateDistributionList xmlns="http://xml.spss.com/notification/remote">
   <distributionList xmlns="http://xml.spss.com/notification" name="Analysts">
    <identifier>0a0a4aacfe9747c10000010dd18630f581cb</identifier>
   </distributionList>
  </updateDistributionList>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a updateDistributionList operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <updateDistributionListResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateEventType operation

Updates the characteristics of an existing event type.

Input fields

The following table lists the input fields for the updateEventType operation.

Table 4-78
Fields for updateEventType

Field	Type/Valid Values	Description
eventType	eventType	Identifies a type of the event within its notification domain .

Java example

To update a content formatter:

1. Call the getEventType operation with an event type identifier to return the type to be updated. Alternatively, if the identifier is not known, the getEventTypes operation could be used to return a vector of all EventType objects in the system, from which the desired content type could be selected.
2. Set updated values for the event type as needed.
3. Supply the updateEventType operation with the revised event type.

   The following code adds a new property to an existing event type.

```
String eventIdentifier = "0a0a4aacfe9747c10000010dd18630f59dc9";
EventType eventType = stub.getEventType(eventIdentifier);
Property property = new Property();
property.setName("JobName");
property.setTypeCode(TypeCode.STRING);
eventType.setProperty(property);
stub.updateEventType(eventType);
```

SOAP request example

Client invocation of the updateEventType operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <updateEventType xmlns="http://xml.spss.com/notification/remote">
   <eventType xmlns="http://xml.spss.com/notification" domainName="MyDomain" typeName="Completion">
    <identifier>0a0a4aacfe9747c10000010dd18630f59dc9</identifier>
    <property typeCode="string" name="JobID"/>
    <property typeCode="boolean" name="Success"/>
    <property typeCode="string" name="JobName"/>
   </eventType>
  </updateEventType>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a updateEventType operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <updateEventTypeResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateNotificationDomain operation

Updates the characteristics of an existing notification domain.

Input fields

The following table lists the input fields for the updateNotificationDomain operation.

Table 4-79
Fields for updateNotificationDomain

Field	Type/Valid Values	Description
notificationDomain	notificationDomain	Identifies the particular vertical industry domain or application in which the event type is defined.

Java example

To update a notification domain:

1. Call the getNotificationDomain operation with a domain identifier to return the notification domain to be updated. Alternatively, if the identifier is not known, the getNotificationDomains operation could be used to return a vector of all NotificationDomain objects in the system, from which the desired domain could be selected.
2. Set updated values for the notification domain as needed.
3. Supply the updateNotificationDomain operation with the revised notification domain.

   The following code updates the name for an existing notification domain.

```
String domainIdentifier = "0a0a4aac0161f10f0000010d8e63c979e87c";
NotificationDomain nDomain = stub.getNotificationDomain(domainIdentifier);
nDomain.setName("Search");
stub.updateNotificationDomain(nDomain);
```

SOAP request example

Client invocation of the updateNotificationDomain operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
```

```
 <soapenv:Body>
  <updateNotificationDomain xmlns="http://xml.spss.com/notification/remote">
   <notificationDomain xmlns="http://xml.spss.com/notification" name="Search">
    <identifier>0a0a4aac0161f10f0000010d8e63c979e87c</identifier>
   </notificationDomain>
  </updateNotificationDomain>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a updateNotificationDomain operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <updateNotificationDomainResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateSubscriber operation

Updates the characteristics of an existing subscriber.

Input fields

The following table lists the input fields for the updateSubscriber operation.

Table 4-80
Fields for updateSubscriber

Field	Type/Valid Values	Description
subscriber	subscriber	Represents an individual subscriber.

Java example

To update a subscriber:

1. Call the getSubscriber operation with a subscriber identifier to return the subscriber to be updated. Alternatively, if the identifier is not known, the getSubscribers operation could be used to return a vector of all Subscriber objects in the system, from which the desired subscriber could be selected.
2. Set updated values for the subscriber as needed.
3. Supply the updateSubscriber operation with the revised subscriber.

   The following code updates the principal ID for an existing subscriber.

```
String subscriberIdentifier = "0a0a4aacfe9747c10000010dd18630f5804e";
Subscriber subscriber = stub.getSubscriber(subscriberIdentifier);
subscriber.setPrincipalID("//u/smtp/jjones@gmail.com");
stub.updateSubscriber(subscriber);
```

SOAP request example

Client invocation of the updateSubscriber operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
   <wsse:Security soapenv:mustUnderstand="0"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
      <wsse:Password xsi:type="xsd:string">password</wsse:Password>
    </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
      xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
   <updateSubscriber xmlns="http://xml.spss.com/notification/remote">
    <subscriber xmlns="http://xml.spss.com/notification" principalID="//u/smtp/jjones@gmail.com">
      <identifier>0a0a4aacfe9747c10000010dd18630f5804e</identifier>
    </subscriber>
   </updateSubscriber>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a updateSubscriber operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
   <updateSubscriberResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateSubscription operation

Updates the characteristics of an existing subscription.

Input fields

The following table lists the input fields for the updateSubscription operation.

Table 4-81
Fields for updateSubscription

Field	Type/Valid Values	Description
subscription	subscription	Represents a single subscription.

Java example

To update a subscription:

1. Call the getSubscription operation with a subscription identifier to return the subscription to be updated. Alternatively, if the identifier is not known, the getSubscriptions operation could be used to return a vector of all Subscription objects in the system, from which the desired subscription could be selected.
2. Set updated values for the subscription as needed.
3. Supply the updateSubscription operation with the revised subscription.

   The following code updates the value for the first property of an existing subscription.

```
String subscriptionIdentifier = "0a0a4aac00072ffb000001094fa9f57ecace";
Subscription subscription = stub.getSubscription(subscriptionIdentifier);
PropertyValue propValue = new PropertyValue;
Value value = new Value();
value.setContent(false);
propValue.setValue(value);
subscription.setPropertyValue(0, propValue);
stub.updateSubscription(subscription);
```

SOAP request example

Client invocation of the updateSubscription operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
```

```
    </wsse:UsernameToken>
   </wsse:Security>
   <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
   xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
  </soapenv:Header>
  <soapenv:Body>
   <updateSubscription xmlns="http://xml.spss.com/notification/remote">
    <subscription xmlns="http://xml.spss.com/notification">
     <identifier>0a0a4aac00072ffb000001094fa9f57ecace</identifier>
     <propertyValue typeCode="boolean" name="JobSuccess$0">
      <identifier>0a0a4aac00072ffb000001094fa9f57ecad0</identifier>
      <value>false</value>
     </propertyValue>
     <propertyValue typeCode="string" name="JobID$0">
      <identifier>0a0a4aac00072ffb000001094fa9f57ecacf</identifier>
      <value>0a0a4aac00072ffb000001094fa9f57eca9d</value>
     </propertyValue>
    </subscription>
   </updateSubscription>
  </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a updateSubscription operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <updateSubscriptionResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateSubscriptions operation

Updates the characteristics of one or more existing subscriptions.

Input fields

The following table lists the input fields for the updateSubscriptions operation.

Table 4-82
Fields for updateSubscriptions

Field	Type/Valid Values	Description
subscription	subscription[]	Represents a single subscription.

Java example

To update one or more subscriptions:

1. Call the getSubscription operation for each subscription identifier to return each subscription to be updated. Alternatively, if the identifier is not known, the getSubscriptions operation could be used to return a vector of all Subscription objects in the system, from which the desired subscriptions could be selected.
2. Set updated values for the subscriptions as needed.
3. Supply the updateSubscriptions operation with an array containing the revised subscriptions.

   The following code updates the value for the first property, the resource ID, of an existing subscription.

```
String subscriptionIdentifier = "0a0a4aac0161f10f0000010d8e63c979c057";
Subscription subscription = stub.getSubscription(subscriptionIdentifier);
PropertyValue propValue = new PropertyValue;
Value value = new Value();
value.setContent("0a0a4aac0161f10f0000010d8e63c9799c24");
propValue.setValue(value);
subscription.setPropertyValue(0, propValue);
stub.updateSubscriptions(subscription);
```

SOAP request example

Client invocation of the updateSubscriptions operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username>validUser</wsse:Username>
    <wsse:Password>password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:actor="http://schemas.xmlsoap.org/soap/actor/next"
    soapenv:mustUnderstand="0" xmlns:ns1="http://xml.spss.com/ws/headers">
   en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <updateSubscriptions xmlns="http://xml.spss.com/notification/remote">
   <ns2:subscription subscriptionSelectorIdentifier="00000000000000000000000000000200"
     enabled="true" scheduled="false" multicasted="false" principalID="//uNative//validUser"
     xmlns:ns2="http://xml.spss.com/notification">
    <ns2:identifier>0a0a4aac0161f10f0000010d8e63c979c057</ns2:identifier>
```

```
      <ns2:propertyValue typeCode="string" name="ResourceID$0">
        <ns2:identifier>0a0a4aac0161f10f0000010d8e63c979c058</ns2:identifier>
        <ns2:value>0a0a4aac0161f10f0000010d8e63c9799c24</ns2:value>
      </ns2:propertyValue>
      <ns2:propertyValue typeCode="boolean" name="Attachments$0">
        <ns2:identifier>0a0a4aac0161f10f0000010d8e63c979c059</ns2:identifier>
        <ns2:value>false</ns2:value>
      </ns2:propertyValue>
    </ns2:subscription>
  </updateSubscriptions>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a updateSubscriptions operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Body>
  <updateSubscriptionsResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

The updateSubscriptionSelector operation

Updates the characteristics of an existing subscription selector.

Input fields

The following table lists the input fields for the updateSubscriptionSelector operation.

Table 4-83
Fields for updateSubscriptionSelector

Field	Type/Valid Values	Description
subscriptionSelector	subscriptionSelector	Defines a subscription selector for the given event type.

Java example

To update a subscription selector:

1. Call the getSubscriptionSelector operation with a subscription selector identifier to return the selector to be updated. Alternatively, if the identifier is not known, the getSubscriptionSelectors operation could be used to return a vector of all SubscriptionSelector objects in the system, from which the desired subscription selector could be selected.

2. Set updated values for the selector as needed.
3. Supply the updateSubscriptionSelector operation with the revised selector.

   The following code updates the name for an existing subscription selector.

```
String selectorIdentifier = "0a0a483800a83a1300000102652a73568013";
SubscriptionSelector selector = stub.getSubscriptionSelector(selectorIdentifier);
selector.setName("new_name");
stub.updateSubscriptionSelector(selector);
```

SOAP request example

Client invocation of the updateSubscriptionSelector operation generates a SOAP request message that is sent to the server for processing. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <soapenv:Header>
  <wsse:Security soapenv:mustUnderstand="0"
    xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
   <wsse:UsernameToken>
    <wsse:Username xsi:type="xsd:string">validUser</wsse:Username>
    <wsse:Password xsi:type="xsd:string">password</wsse:Password>
   </wsse:UsernameToken>
  </wsse:Security>
  <ns1:client-accept-language soapenv:mustUnderstand="0" xsi:type="xsd:string"
    xmlns:ns1="http://xml.spss.com/ws/headers">en-US;q=1.0, en;q=0.8</ns1:client-accept-language>
 </soapenv:Header>
 <soapenv:Body>
  <updateSubscriptionSelector xmlns="http://xml.spss.com/notification/remote">
   <subscriptionSelector xmlns="http://xml.spss.com/notification"
     filterExpression="JobID=='JobID' &amp;amp;&amp;amp; JobSuccess==true"
     compiledFilterExpression="JobID$0=='${JobID}' &amp;amp;&amp;amp; JobSuccess$0==${JobSuccess}"
     name="new_name">
    <identifier>0a0a483800a83a1300000102652a73568013</identifier>
   </subscriptionSelector>
  </updateSubscriptionSelector>
 </soapenv:Body>
</soapenv:Envelope>
```

SOAP response example

The server responds to a updateSubscriptionSelector operation call by sending a SOAP response message containing the results. An example of such a message follows.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

```
 <soapenv:Body>
  <updateSubscriptionSelectorResponse xmlns="http://xml.spss.com/notification/remote"/>
 </soapenv:Body>
</soapenv:Envelope>
```

Appendix

A

Microsoft® .NET Framework-based clients

In order to use the web services from a Microsoft Windows Communication Foundation (WCF) client, you will need Visual Studio 2008 or later. The discussion here assumes the use of Visual Studio 2008. In general, the process for accessing IBM® SPSS® Collaboration and Deployment Services web services involves the following steps:

1. Add a Service Reference. For more information, see the topic Adding a service reference on p. 125.

2. Configure the web service endpoint. For more information, see the topic Configuring the web service endpoint on p. 127.

3. Programmatically configure the necessary endpoint behaviors. For more information, see the topic Configuring endpoint behaviors on p. 128.

4. Exercise the web service. For more information, see the topic Exercising the service on p. 128.

Note that the IBM SPSS Collaboration and Deployment Services single sign-on implementation is not compatible with Microsoft .NET web services, or the WCF. As a result, single sign-on is not available from these clients.

Adding a service reference

The first step in using a WCF client to access IBM® SPSS® Collaboration and Deployment Services web services is to make the service available to the Visual Studio project by adding it as a Service Reference.

1. In Visual Studio, right-click the folder's *References* folder and select Add Service Reference.

2. Type the URL of the service WSDL location in the Address field, and click Go. The value corresponds to the service endpoint appended with *?wsdl*.

3. Specify the desired namespace in the Namespace field.

4. Click OK.

Visual Studio adds a new service reference to the Service Reference directory for the project. The name of the reference corresponds to the specified namespace.

Service reference modifications

Due to known compatibility issues between Microsoft tooling and some WSDL files, you need to manually modify some service references before they can be used successfully. For information about the specific issues, see articles 891386 (*http://support.microsoft.com/kb/891386*) and 326790 (*http://support.microsoft.com/kb/326790*) on the Microsoft Support site.

To modify a service reference:

1. In Visual Studio, select the project and click Show All Files from the Project menu.
2. Expand the service reference that needs to be modified.
3. Expand the *Reference.svcmap* node.
4. Open the *Reference.cs* file.
5. Make the required modifications.
6. Save the file.

For the Content Repository Service , Content Repository URI Service, and Process Management Service, you need to make the following changes to the RowType class:

- private value[][] cellField should be changed to private value[] cellField
- public value[][] cell should be changed to public value[] cell

For the Scoring Service, you need to make the following changes:

- in the returnedDPDOutputTable class, private returnedDPDOutputValue[][] returnedDPDOutputrowField should be changed to private returnedDPDOutputValue[] returnedDPDOutputrowField
- in the returnedDPDOutputTable class, private returnedDPDOutputValue[][] returnedDPDOutputRow should be changed to private returnedDPDOutputValue[] returnedDPDOutputRow
- in the returnedRequestInputTable class, private returnedRequestInputValue[][] returnedRequestInputRow should be changed to private returnedRequestInputValue[] returnedRequestInputRow
- in the returnedRequestInputTable class, private returnedRequestInputValue[][] returnedRequestInputRowField should be changed to private returnedRequestInputValue[] returnedRequestInputRowField
- in the requestInputTable class, private input1[][] requestInputRowField should be changed to private input1[] requestInputRowField
- in the requestInputTable class, private input1[][] requestInputRow should be changed to private input1[] requestInputRow

For the PevServices Service, you need to make the following changes:

- in the avTableConflict class, private avColumnMeta[][] avColumnConflictField should be changed to private avColumnMeta[] avColumnConflictField

- in the avTableConflict class, private avColumnMeta[][] avColumnConflict should be changed to private avColumnMeta[] avColumnConflict
- in the evTableConflict class, private evColumnMeta[][] evColumnConflictField should be changed to private evColumnMeta[] evColumnConflictField
- in the evTableConflict class, private evColumnMeta[][] evColumnConflict should be changed to private evColumnMeta[] evColumnConflict

Configuring the web service endpoint

In WCF, you can configure a service endpoint either declaratively using an *app.config* file, or programmatically using the WCF APIs. The following steps describe the creation of a basic configuration within an *app.config* file.

1. In Visual Studio, double-click the *app.config* file for the application (or *web.config* for a web-application).

2. Find the system.serviceModel element. Create it if it does not already exist.

3. Find the client element. Create it if it does not already exist.

4. Create a new endpoint element as a child of the client element.

5. Specify the appropriate service endpoint URL as the value of the *address* attribute.

6. Specify *basicHttpBinding* as the value of the *binding* attribute.

7. Specify the appropriate service contract as the value of the *contract* attribute. The service contract is the value of the service reference namespace appended with the service name.

8. Optionally specify a value for the *name* attribute that identifies a name for the endpoint configuration. If the *name* is blank, the configuration is used as the default for the service.

The resulting *app.config* file should be similar to the following example:

```
<system.serviceModel>
  <client>
    <endpoint
      address="http://cads_server:8080/cr-ws/services/ContentRepository"
      binding="basicHttpBinding"
      bindingConfiguration=""
      contract="IBM.SPSS.ContentRepository"
      name=""/>
  </client>
</system.serviceModel>
```

Configuring endpoint behaviors

The following two issues complicate the use of IBM® SPSS® Collaboration and Deployment Servicesweb services by WCF clients:

- WCF does not allow the username and password to be transmitted over HTTP
- WCF does not correctly understand the SOAP Fault format returned by the services

To address these problems, a sample Visual Studio project is available that contains classes adding endpoint behaviors that resolve both issues. The IBM SPSS Collaboration and Deployment Services installation media includes this project.

To use these classes, ensure that the *IBM.SPSS.WCF.Utilities* project containing these classes has been compiled and added as a reference to the Visual Studio project that exercises the web services. When constructing a new service client instance, ensure that the behaviors are added as follows:

```
ContentRepositoryClient serviceClient = new ContentRepositoryClient();
serviceClient.Endpoint.Behaviors.Add(
  new ApplyClientInspectorsBehavior(
  new HeaderInjectionMessageInspector(
    new UsernameTokenSecurityHeader("admin", "Abcdefg1")
  ),
  new SOAPFaultFormatMessageInspector())
);
```

This adds two message inspectors to the behaviors for the endpoint. The first allows message headers to be injected, permitting a UsernameToken security header containing the username and password to be transmitted over HTTP. The second message inspector intercepts SOAP Faults, ensuring that they are formatted for proper WCF processing.

Exercising the service

After adding the service reference to the project, configuring the endpoint, and adding the necessary endpoint behaviors, the WCF-based web service client is ready. Add the .NET source code to the project to exercise the web service as needed.

There may be instances in which the .NET client proxies are generated incorrectly, leading to unexpected missing results at runtime. If a web service call returns no results when results are expected, the generated .NET types associated with the request and response should be examined. Specifically, members of the types may have two .NET attributes assigned. The first, MessageBodyMemberAttribute, will often include the proper namespace for the member type. The second, XmlElementAttribute, should have the same namespace as MessageBodyMemberAttribute. If this is not the case, add the namespace to XmlElementAttribute. Moreover, the addition of XML serialization attributes, such as System.XML.Serialization.XmlElementAttribute, may be necessary to correctly name the expected namespace or element. For example, the following generated client code would need to be modified:

```
public partial class getUsersResponse {
  System.ServiceModel.MessageBodyMemberAttribute(Namespace =
    "http://xml.spss.com/pes/userPref/remote", Order = 0)]
```

```
  public IBM.SPSS.ManagerUserPref.usersResponse usersResponse;
```

The corrected code is as follows:

```
public partial class getUsersResponse {
  [System.ServiceModel.MessageBodyMemberAttribute(Namespace =
    "http://xml.spss.com/pes/userPref/remote", Order = 0)]
  [System.Xml.Serialization.XmlElementAttribute(ElementName="usersRequestResponse")]
   public IBM.SPSS.ManagerUserPref.usersResponse usersResponse;
```

Appendix

B

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