



ws-ISBM 1.0

Web Service Information Service Bus Model

OpenO&M Standard

2014-09-08

WSDLs

<http://www.openoandm.org/isbm/1.0/wsd/ChannelManagementService.wsdl>

<http://www.openoandm.org/isbm/1.0/wsd/NotificationService.wsdl>

<http://www.openoandm.org/isbm/1.0/wsd/ProviderPublicationService.wsdl>

<http://www.openoandm.org/isbm/1.0/wsd/ConsumerPublicationService.wsdl>

<http://www.openoandm.org/isbm/1.0/wsd/ProviderRequestService.wsdl>

<http://www.openoandm.org/isbm/1.0/wsd/ConsumerRequestService.wsdl>

Packaged Specification

<http://www.openoandm.org/isbm/ws-isbm-1.0.zip>

Latest Version

<http://www.openoandm.org/isbm>



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Abstract

This document defines a SOAP Web Service implementation of the ISA 95.00.06 Messaging Service Model. The ws-ISBM defines a minimal interface subset to Enterprise Service Buses (ESB) and other message exchange middleware, using a standard interface consisting of channels and topics. The benefit from this approach is to allow applications to expose a single, standardized interface rather than having to be custom built for every version and format of ESB or message exchange system.

Status

This specification was last revised and approved by OpenO&M on the above date. Check the [Latest Version](#) for possible later revisions of this document.

This document is considered stable and may be used as reference material or cited as a normative reference from another document.

The latest stable version of the editor's draft of this specification is always available on the [MIMOSA ISBM Git repository](#).

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1 Introduction

This ws-ISBM specification defines a SOAP Web Service implementation of the ISA 95.00.06 Messaging Service Model.

The ws-ISBM defines a minimal interface subset to Enterprise Service Buses (ESB) and other message exchange middleware using a standard Web Service interface. Publish-subscribe and request-response messaging patterns are supported through a consistent and unified model. Message routing is conducted through shared channels and topics, and optionally, XPath filtering for granular content-based filtering. An asynchronous Web Service callback is also provided to clients for notification of applicable messages. Token-based security for channels is specified to support multiple authorization models, from basic credential exchange to federated identity providers.

The benefit of a ws-ISBM implementation is to allow applications to expose a single, standardized interface rather than having to be custom built for every version and format of ESB or message exchange system. The goal is to further interoperability in application to application communications.

1.2 Notational Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#).

This specification uses the following syntax to define XML structures: Element Name (Type) [Cardinality]. The namespaces for Types are defined in [the following section](#). For example, the Topic element defined as an XML Schema string with one to many cardinality would be defined as: Topic (xs:string) [1..*].

1.3 Namespaces

The following namespaces are used in this document:

Prefix	Namespace
xs	http://www.w3.org/2001/XMLSchema
isbm	http://www.openoandm.org/isbm/

2 Service Requirements

The following items define shared requirements that are applicable across the various services defined in [Service Definitions](#). These requirements supplement the service requirements specified by ISA 95.00.06 but are contextualized for SOAP Web Services.

2.1 Message Content Format

Content is associated with a message through the use of an XML Schema any element. The XML content MUST be valid XML. A ws-ISBM Service Provider SHOULD preserve significant whitespace and comments within the XML content.

Note As only an XML element is associated with a message, an XML declaration specifically for the content is not supported. Instead, the message content will inherit the XML declaration of the SOAP body.

2.2 Security

Security in the ws-ISBM specification only provide authorization of channels. Authorization of services is considered out-of-scope.

All ws-ISBM implementations MUST support transport layer security (e.g. SSL/TLS) in order to secure tokens and messages, and to prevent replay attacks.

All ws-ISBM implementations MUST support the [WS-Security UsernameToken](#) using PasswordText as a basic level of security token. Examples of its use can be found in [Example HTTP Flows](#).

A ws-ISBM Service Provider MAY choose to support additional forms of security tokens (e.g. SAML assertions, OAuth tokens) and it is RECOMMENDED that a ws-ISBM Service Provider support out-of-band token exchange standards such as [SAML](#), [WS-Federation](#) or [OAuth](#).

As security tokens in the [Channel Management Service](#) are specified using XML Schema any element, tokens MUST be able to be represented in an XML format. For tokens that do not have a canonical XML representation, a ws-ISBM Service Provider MUST define the supported formats.

A ws-ISBM Service Provider MUST validate security tokens for every service operation except for the Channel Management Service [CreateChannel operation](#) (since the channel does not exist at the point in time when invoking CreateChannel). For the provider and consumer services, tokens are validated upon every operation to ensure that an application has valid credentials even after a session is opened (in the event of token revocation).

2.3 Error Handling

2.3.1 SOAP Faults

SOAP Faults MUST have an accompanying human readable explanation. For a SOAP 1.1 implementation this is provided through the SOAP faultstring element (see [SOAP 1.1, SOAP Fault](#)). For a SOAP 1.2 implementation this is provided through the SOAP Reason element (see [SOAP 1.2, SOAP Reason Element](#)).

Note The declared SOAP Faults specified by the services and WSDLs do not have any elements or attributes defined. This is because the sender can interpret the fault based on the supplied parameters and/or the operation behavior. For example, a ChannelFault returned by the DeleteChannel operation means that the ChannelURI provided by the sender did not exist.

2.3.2 Parameter Faults

If any parameter for an operation is malformed or not optional and blank, then a ws-ISBM Service Provider MUST return a SOAP Fault and SHOULD include undeclared isbm:ParameterFault element in the fault details to aid senders in determining the type of error. The fault MUST carry the offending parameter name/s.

2.3.3 Invalid Notification URL

If a provider/consumer application provides an invalid URL or a URL that does not host a NotifyListener service, the ws-ISBM Service Provider MAY choose not to send or defer a NotifyListener SOAP request.

2.4 Content-Based Filtering

To allow efficient content-based filtering of messages, an XPath expression MAY be added to a subscription or read request session to provide a filtering definition. The XPath expression MUST be defined as an XPath v1.0 expression. An XPath evaluation that returns an empty value or node set MUST NOT cause a notification to be generated nor will the message be visible to the receiving system. For an XPath expression that use namespaces, multiple namespace prefixes and names are added upon session creation.

Note An empty result from an XPath evaluation will result in the whole message being filtered; the message content itself is not filtered.

2.5 Message Expiry

During posting of certain messages, a sender MAY specify an expiry duration for the message. A ws-ISBM Service Provider MUST hide an expired message from potential receivers unless the receiver has already read the message, in which case it will always remain visible to that particular receiver. This is to ensure the message is still available to the receiver to ensure message removal removes the correct message.

If a sender specifies a negative Expiry duration, then a ws-ISBM Service Provider MUST consider it equivalent to a blank duration.

Note Responses can still be posted for an expired request message, and Consumers will still receive response notifications and be able to read and remove these responses.

3 Service Definitions

All services defined in ISA 95.00.06 are defined as SOAP Web Services in this specification. The SOAP service definitions below are to be interpreted in the context of the corresponding ISA 95.00.06 service.

Note ISA 95.00.06 does not define a Expire Request operation within the Consumer Request Service, but it has been specified below for a consistent message expiry model across services.

All service operations have corresponding HTTP examples shown in Example HTTP Flows.

3.1 Terminology

ChannelDescription

The description of a channel.

ChannelType

Indicates whether the channel is for publications or requests/responses. Defined ChannelTypes are Publication and Request.

ChannelURI

The primary identifier for a channel.

Expiry

The duration until the expiration of the message.

ListenerURL

The URL endpoint, reachable by the ws-ISBM Service Provider, which hosts a ws-ISBM Notification Service. Used to indicate when a new message is available for a session.

MessageContent

The XML content of a message.

MessageID

An identifier generated by the ws-ISBM Service Provider upon creation of a message.

NamespaceName

The namespace name used for an XPath filter expression.

NamespacePrefix

The namespace prefix used for an XPath filter expression.

SecurityToken

A token that can be assigned to a channel to control authorization.

SessionID

An identifier generated by the ws-ISBM Service Provider upon creation of a session. Identifiers SHOULD be made non-obvious and not easily guessable.

Topic

The topic name.

XPathExpression

The XPath 1.0 expression that is used to filter message content.

3.2 Channel Management Service

The Channel Management Service is [available as a WSDL description](#).

3.2.1 Create Channel

Name	CreateChannel
Description	Creates a new channel.
Input	ChannelURI (xs:string) [1] ChannelType (isbm:ChannelType) [1] ChannelDescription (xs:string) [0..1] SecurityToken (isbm:SecurityToken) [0..*]
Behavior	If the ChannelURI already exists then a ChannelFault is returned. The SecurityTokens are assigned to the channel upon its creation. If duplicate SecurityTokens exist, these result in a single token being assigned to the channel to maintain a distinct list.
Output	N/A
Faults	ChannelFault

3.2.2 Add Security Tokens

Name	AddSecurityTokens
Description	Adds security tokens to a channel.
Input	ChannelURI (xs:string) [1] SecurityToken (isbm:SecurityToken) [1..*]
Behavior	If the ChannelURI does not exist, then a ChannelFault is returned. If the specified channel is assigned security tokens and the provided token does not match a token assigned to the channel, then a ChannelFault is returned. If a specified SecurityToken is already assigned to the channel, then no further action is taken to maintain a distinct list.
Output	N/A
Faults	ChannelFault

3.2.3 Remove Security Tokens

Name	RemoveSecurityTokens
Description	Removes security tokens from a channel.
Input	ChannelURI (xs:string) [1] SecurityToken (isbm:SecurityToken) [1..*]
Behavior	If the ChannelURI does not exist, then a ChannelFault is returned. If the specified channel is assigned security tokens and the provided token does not match a token assigned to the channel, then a ChannelFault is returned. If any specified SecurityToken is not assigned to the channel, then an SecurityTokenFault is returned. No tokens are removed from the channel, even if they are valid.
Output	N/A
Faults	ChannelFault SecurityTokenFault

3.2.4 Delete Channel

Name	DeleteChannel
Description	Deletes a channel.
Input	ChannelURI (xs:string) [1]
Behavior	If the ChannelURI does not exist, then a ChannelFault is returned. If the specified channel is assigned security tokens and the provided token does not match a token assigned to the channel, then a ChannelFault is returned. The channel along with associated sessions and messages are deleted. No notification is provided to any applications with active sessions.
Output	N/A
Faults	ChannelFault

3.2.5 Get Channel

Name	GetChannel
Description	Gets information about a channel.
Input	ChannelURI (xs:string) [1]
Behavior	If the ChannelURI does not exist, then a ChannelFault is returned. If the specified channel is assigned security tokens and the provided token does not match a token assigned to the channel, then a ChannelFault is returned.
Output	Channel (isbm:Channel) [1], composed of: ChannelURI (xs:string) [1] ChannelType (isbm:ChannelType) [1] ChannelDescription (xs:string) [0..1]

Faults	ChannelFault
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3.2.6 Get Channels

Name	GetChannels
Description	Gets information about all channels.
Input	N/A
Behavior	The channels returned are filtered by those that match the security token. Any channel that does not have security tokens assigned are returned regardless.
Output	Channel (isbm:Channel) [0..*], composed of: <ul style="list-style-type: none"> ChannelURI (xs:string) [1] ChannelType (isbm:ChannelType) [1] ChannelDescription (xs:string) [0..1]

Faults	N/A
--------	-----

3.3 Notification Service

The Notification Service is [available as a WSDL description](#).

3.3.1 Notify Listener

Name	NotifyListener
Description	Provides a notification of a new message being able to be read for a session. The Listener URL invoked was provided when the application desiring notifications subscribed to the channel.
Input	SessionID (xs:string) [1] MessageID (xs:string) [1] Topic (xs:string) [0..*] RequestMessageID (xs:string) [0..1]
Behavior	Topic MUST NOT be used for consumer request session response notification. RequestMessageID allows correlation with the original request and thus it MUST only be used for consumer request session response notification.
Output	N/A
Faults	N/A

3.4 Provider Publication Service

The Provider Publication Service is [available as a WSDL description](#).

3.4.1 Open Publication Session

Name	OpenPublicationSession
Description	Opens a publication session for a channel.
Input	ChannelURI (xs:string) [1]
Behavior	If the ChannelURI does not exist, then a ChannelFault is returned.

If the specified channel is assigned security tokens and the provided token does not match a token assigned to the channel, then a ChannelFault is returned.

If the channel type is not a Publication type, then an OperationFault is returned.

Output SessionID ([xs:string](#)) [1]

Faults ChannelFault

OperationFault

3.4.2 Post Publication

Name PostPublication

Description Posts a publication message on a channel.

Input SessionID ([xs:string](#)) [1]

MessageContent ([isbm:MessageContent](#)) [1]

Topic ([xs:string](#)) [1..*]

Expiry ([xs:duration](#)) [0..1]

Behavior If the SessionID does not exist or does not correspond to a publication session, then a SessionFault is returned.

If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.

Output MessageID ([xs:string](#)) [1]

Faults SessionFault

3.4.3 Expire Publication

Name ExpirePublication

Description Expires a posted publication.

Input SessionID ([xs:string](#)) [1]

MessageID ([xs:string](#)) [1]

Behavior If the SessionID does not exist or does not correspond to a publication session, then a SessionFault is returned.

If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.

If the MessageID does not correspond with the SessionID or the corresponding message has already expired, then no further action is taken.

The message is expired for all topics associated with the message.

Output N/A

Faults SessionFault

3.4.4 Close Publication Session

Name ClosePublicationSession

Description	Closes a publication session.
Input	SessionID (xs:string) [1]
Behavior	<p>If the SessionID does not exist (non-existent or already closed) or does not correspond to a publication session, then a SessionFault is returned.</p> <p>If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.</p> <p>All unexpired messages that have been posted during the session will be expired.</p>
Output	N/A
Faults	SessionFault

3.5 Consumer Publication Service

The Consumer Publication Service is [available as a WSDL description](#).

3.5.1 Open Subscription Session

Name	OpenSubscriptionSession
Description	Opens a subscription session for a channel.
Input	<p>ChannelURI (xs:string) [1]</p> <p>Topic (xs:string) [1..*]</p> <p>ListenerURL (xs:string) [0..1]</p> <p>XPathExpression (xs:string) [0..1]</p> <p>XPathNamespace (isbm:Namespace) [0..*], composed of:</p> <ul style="list-style-type: none"> NamespacePrefix (xs:string) [1] NamespaceName (xs:string) [1]
Behavior	<p>If the ChannelURI does not exist, then a ChannelFault is returned.</p> <p>If the specified channel is assigned security tokens and the provided token does not match a token assigned to the channel, then a ChannelFault is returned.</p> <p>If the channel type is not a Publication type, then an OperationFault is returned.</p> <p>If multiple NamespacePrefixes exist with different NamespaceNames, then a NamespaceFault is returned.</p>
Output	SessionID (xs:string) [1]
Faults	<p>ChannelFault</p> <p>NamespaceFault</p> <p>OperationFault</p>

3.5.2 Read Publication

Name	ReadPublication
Description	Returns the first non-expired publication message or a previously read expired message that

	satisfies the session message filters.
Input	SessionID (xs:string) [1]
Behavior	<p>If the SessionID does not exist or does not correspond to a subscription session, then a SessionFault is returned.</p> <p>If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.</p>
Output	<p>PublicationMessage (isbm:PublicationMessage) [0..1], composed of:</p> <p>MessageID (xs:string) [1]</p> <p>MessageContent (isbm:MessageContent) [1]</p> <p>Topic (xs:string) [1..*]</p>
Faults	SessionFault

3.5.3 Remove Publication

Name	RemovePublication
Description	Removes the first, if any, publication message in the subscription queue.
Input	SessionID (xs:string) [1]
Behavior	<p>If the SessionID does not exist or does not correspond to a subscription session, then a SessionFault is returned.</p> <p>If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.</p>
Output	N/A
Faults	SessionFault

3.5.4 Close Subscription Session

Name	CloseSubscriptionSession
Description	Closes a subscription session.
Input	SessionID (xs:string) [1]
Behavior	<p>If the SessionID does not exist (non-existent or already closed) or does not correspond to a publication session, then a SessionFault is returned.</p> <p>If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.</p>
Output	N/A
Faults	SessionFault

3.6 Provider Request Service

The Provider Request Service is [available as a WSDL description](#).

3.6.1 Open Provider Request Session

Name	OpenProviderRequestSession
Description	Opens a provider request session for a channel for reading requests and posting responses.

Input	<p>ChannelURI (xs:string) [1]</p> <p>Topic (xs:string) [1..*]</p> <p>ListenerURL (xs:string) [0..1]</p> <p>XPathExpression (xs:string) [0..1]</p> <p>XPathNamespace (isbm:Namespace) [0..*], composed of:</p> <ul style="list-style-type: none"> NamespacePrefix (xs:string) [1] NamespaceName (xs:string) [1]
Behavior	<p>If the ChannelURI does not exist, then a ChannelFault is returned.</p> <p>If the specified channel is assigned security tokens and the provided token does not match a token assigned to the channel, then a ChannelFault is returned.</p> <p>If the channel type is not a Request type, then an OperationFault is returned.</p> <p>If multiple NamespacePrefixes exist with different NamespaceNames, then a NamespaceFault is returned.</p>
Output	SessionID (xs:string) [1]
Faults	<p>ChannelFault</p> <p>NamespaceFault</p> <p>OperationFault</p>

3.6.2 Read Request

Name	ReadRequest
Description	Returns the first non-expired request message or a previously read expired message that satisfies the session message filters.
Input	SessionID (xs:string) [1]
Behavior	<p>If the SessionID does not exist or does not correspond to a provider request session, then a SessionFault is returned.</p> <p>If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.</p> <p>The returned Topic will correspond to the first topic that matched the posted request.</p>
Output	<p>RequestMessage (isbm:RequestMessage) [0..1], composed of:</p> <ul style="list-style-type: none"> MessageID (xs:string) [1] MessageContent (isbm:MessageContent) [1] Topic (xs:string) [1]
Faults	SessionFault

3.6.3 Remove Request

Name	RemoveRequest
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Description	Deletes the first request message, if any, in the session message queue.
Input	SessionID (xs:string) [1]
Behavior	If the SessionID does not exist or does not correspond to a provider request session, then a SessionFault is returned. If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.
Output	N/A
Faults	SessionFault

3.6.4 Post Response

Name	PostResponse
Description	Posts a response message on a channel.
Input	SessionID (xs:string) [1] RequestMessageID (xs:string) [1] MessageContent (isbm:MessageContent) [1]
Behavior	If the SessionID does not exist or does not correspond to a provider request session, then a SessionFault is returned. If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned. If there is no request message that can be matched to RequestMessageID, then no further action is taken.
Output	MessageID (xs:string) [1]
Faults	SessionFault

3.6.5 Close Provider Request Session

Name	CloseProviderRequestSession
Description	Closes a provider request session.
Input	SessionID (xs:string) [1]
Behavior	If the SessionID does not exist (non-existent or already closed) or does not correspond to a Request session, then a SessionFault is returned. If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.
Output	N/A
Faults	SessionFault

3.7 Consumer Request Service

The Consumer Request Service is [available as a WSDL description](#).

3.7.1 Open Consumer Request Session

Name	OpenConsumerRequestSession
-------------	-----------------------------------

Description	Opens a consumer request session for a channel for posting requests and reading responses.
Input	ChannelURI (xs:string) [1] ListenerURL (xs:string) [0..1]
Behavior	If the ChannelURI does not exist, then a ChannelFault is returned. If the specified channel is assigned security tokens and the provided token does not match a token assigned to the channel, then a ChannelFault is returned. If the channel type is not a Request type, then an OperationFault is returned.
Output	SessionID (xs:string) [1]
Faults	ChannelFault OperationFault

3.7.2 Post Request

Name	PostRequest
Description	Posts a request message on a channel.
Input	SessionID (xs:string) [1] MessageContent (isbm:MessageContent) [1] Topic (xs:string) [1] Expiry (xs:duration) [0..1]
Behavior	If the SessionID does not exist or does not correspond to a consumer request session, then a SessionFault is returned. If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.
Output	MessageID (xs:string) [1]
Faults	SessionFault

3.7.3 Expire Request

Name	ExpireRequest
Description	Expires a posted request message.
Input	SessionID (xs:string) [1] MessageID (xs:string) [1]
Behavior	If the SessionID does not exist or does not correspond to a consumer request session, then a SessionFault is returned. If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned. If the MessageID does not correspond with the SessionID or the corresponding message has already expired, then no further action is taken.
Output	N/A

Faults	SessionFault
--------	--------------

3.7.4 Read Response

Name	ReadResponse
Description	Returns the first response message, if any, in the session message queue associated with the request.
Input	SessionID (xs:string) [1] RequestMessageID (xs:string) [1]
Behavior	<p>If the SessionID does not exist or does not correspond to a consumer request session, then a SessionFault is returned.</p> <p>If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.</p> <p>If the RequestMessageID does not correspond to a message in the message queue, then no message is returned.</p>
Output	ResponseMessage (isbm:ResponseMessage) [0..1], composed of: MessageID (xs:string) [1] MessageContent (isbm:MessageContent) [1]

Faults	SessionFault
--------	--------------

3.7.5 Remove Response

Name	RemoveResponse
Description	Deletes the first response message, if any, in the session message queue associated with the request.
Input	SessionID (xs:string) [1] RequestMessageID (xs:string) [1]
Behavior	<p>If the SessionID does not exist or does not correspond to a consumer request session, then a SessionFault is returned.</p> <p>If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.</p> <p>If the RequestMessageID does not correspond to a message in the message queue, then no further action is taken.</p>
Output	N/A
Faults	SessionFault

3.7.6 Close Consumer Request Session

Name	CloseConsumerRequestSession
Description	Closes a consumer request session.
Input	SessionID (xs:string) [1]
Behavior	If the SessionID does not exist (non-existent or already closed) or does not correspond to a Request

session, then a SessionFault is returned.

If the channel associated with the session is assigned security tokens and the provided token does not match a token assigned to the channel, then a SessionFault is returned.

All unexpired requests that have been posted during the session will be expired.

Output	N/A
Faults	SessionFault

4 XML Data Structures

The following data structures are used by the services defined in [Service Definitions](#) and are defined using XML Schema. All types have a target namespace of `http://www.openoandm.org/isbm/`.

Channel

```
<xs:complexType name="Channel">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="ChannelURI" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="ChannelType" type="isbm:ChannelType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ChannelDescription" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

ChannelType

```
<xs:simpleType name="ChannelType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Publication"/>
    <xs:enumeration value="Request"/>
  </xs:restriction>
</xs:simpleType>
```

MessageContent

```
<xs:complexType name="MessageContent">
  <xs:sequence>
    <xs:any minOccurs="1" maxOccurs="1" namespace="##any" processContents="lax"/>
  </xs:sequence>
</xs:complexType>
```

Namespace

```
<xs:complexType name="Namespace">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="NamespacePrefix" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="NamespaceName" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

PublicationMessage

```
<xs:complexType name="PublicationMessage">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="MessageID" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

```

    <xs:element minOccurs="1" maxOccurs="1" name="MessageContent"
type="isbm:MessageContent"/>
    <xs:element minOccurs="1" maxOccurs="unbounded" name="Topic" type="xs:string"/>
  </xs:sequence>
</xs:complexType>

```

RequestMessage

```

<xs:complexType name="RequestMessage">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="MessageID" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="MessageContent"
type="isbm:MessageContent"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Topic" type="xs:string"/>
  </xs:sequence>
</xs:complexType>

```

ResponseMessage

```

<xs:complexType name="ResponseMessage">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="MessageID" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="MessageContent"
type="isbm:MessageContent"/>
  </xs:sequence>
</xs:complexType>

```

SecurityToken

```

<xs:complexType name="SecurityToken">
  <xs:sequence>
    <xs:any minOccurs="1" maxOccurs="1" namespace="##any" processContents="lax"/>
  </xs:sequence>
</xs:complexType>

```

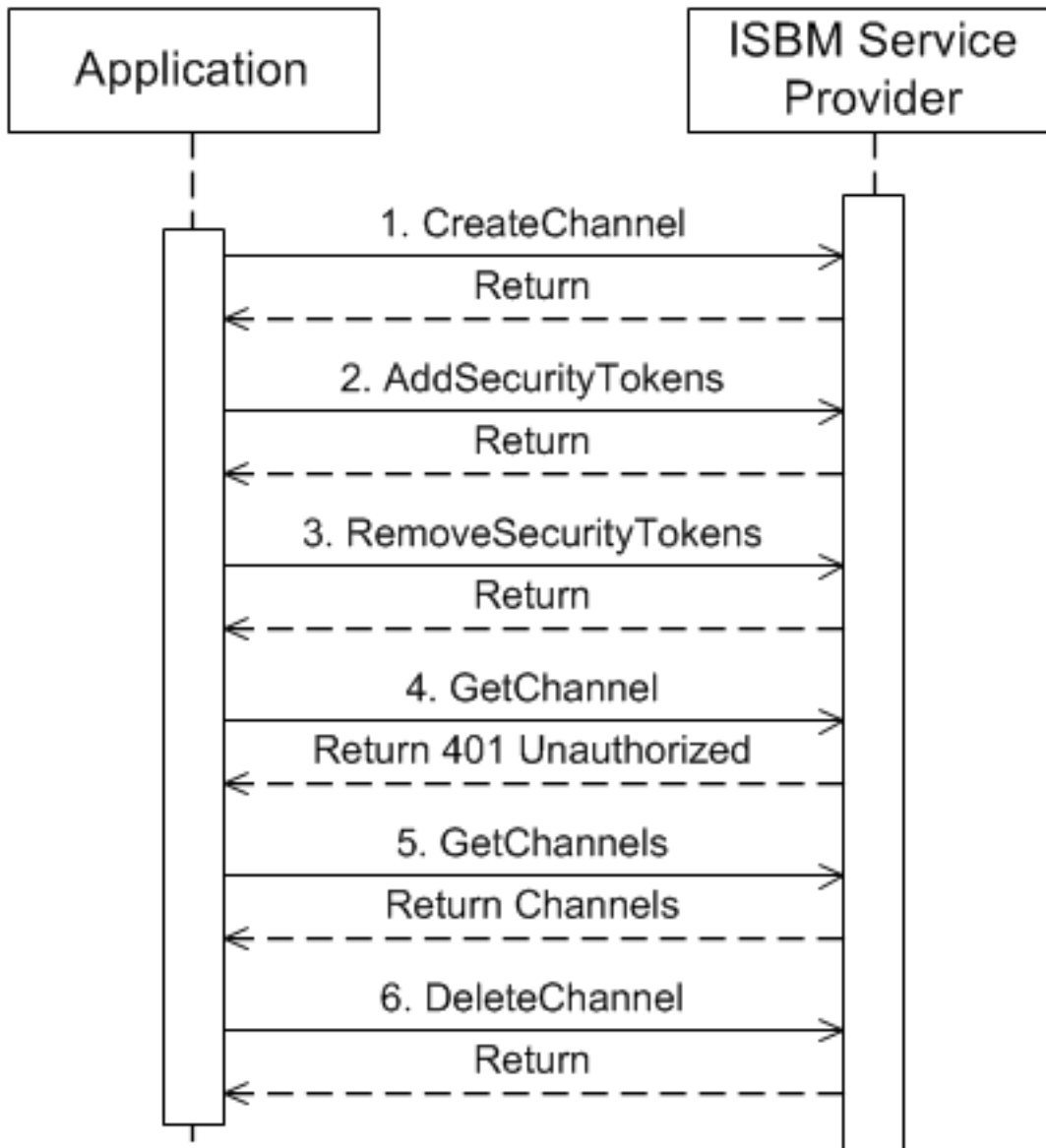
5 Conformance

Any assessment of conformance of a ws-ISBM implementation MUST be qualified by the following:

1. Support for the Channel Management Service
2. Support for the Notification Service
3. Support for the Provider Publication Service
4. Support for the Consumer Publication Service
5. Support for the Provider Request Service
6. Support for the Consumer Request Service
7. Support for SOAP 1.1 and SOAP 1.2 services
8. Support for Filter Expressions in an XPath 1.0 format
9. Support for Security Tokens using WS-Security UsernameToken
10. Support for other Security Tokens formats
11. A statement of the total conformance concerning services and security methods supported or, in case of partial conformance, a statement identifying explicitly the areas of non-conformance

Appendix A Example HTTP Flows

A.1 Channel Management Example



1. CreateChannel

The Application creates a channel on the ISBM Service Provider and assigns a WS-Security security token.

Note XML special characters must be escaped, as seen with the < character in the Password element.

HTTP Request

```

POST /ChannelManagementService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 705
SOAPAction: "http://www.openoandm.org/isbm/CreateChannel"
  
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:CreateChannel xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
      <isbm:ChannelType>Publication</isbm:ChannelType>
      <isbm:SecurityToken>
        <wsse:UsernameToken xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
          <wsse:Username>Application1</wsse:Username>
          <wsse:Password>&lt;s9.vQfLDx9LgL</wsse:Password>
        </wsse:UsernameToken>
      </isbm:SecurityToken>
    </isbm:CreateChannel>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 238
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:CreateChannelResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

2. AddSecurityToken

The Application assigns an additional security token to the channel.

HTTP Request

```
POST /ChannelManagementService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 892
SOAPAction: "http://www.openoandm.org/isbm/AddSecurityToken"
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
  <soap:Header>
    <wsse:Security>
      <wsse:UsernameToken>
        <wsse:Username>Application1</wsse:Username>
        <wsse:Password>&lt;s9.vQfLDx9LgL</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:AddSecurityToken xmlns:isbm="http://www.openoandm.org/isbm/">
```

```

    <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
    <isbm:SecurityToken>
      <wsse:UsernameToken>
        <wsse:Username>Application2</wsse:Username>
        <wsse:Password>chHM?rFum{48mg</wsse:Password>
      </wsse:UsernameToken>
    </isbm:SecurityToken>
  </isbm:AddSecurityToken>
</soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 241

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:AddSecurityTokenResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>

```

3. RemoveSecurityToken

The Application removes the original security token from the channel.

HTTP Request

```

POST /ChannelManagementService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 898
SOAPAction: "http://www.openoandm.org/isbm/RemoveSecurityToken"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd">
  <soap:Header>
    <wsse:Security>
      <wsse:UsernameToken>
        <wsse:Username>Application2</wsse:Username>
        <wsse:Password>chHM?rFum{48mg</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:RemoveSecurityToken xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
      <isbm:SecurityToken>
        <wsse:UsernameToken>
          <wsse:Username>Application1</wsse:Username>
          <wsse:Password>&lt;s9.vQfLDx9LgL</wsse:Password>
        </wsse:UsernameToken>
      </isbm:SecurityToken>
    </isbm:RemoveSecurityToken>
  </soap:Body>
</soap:Envelope>

```



```

    </isbm:RemoveSecurityToken>
  </soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 244

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:RemoveSecurityTokenResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>

```

4. GetChannel

The Application attempts to retrieve channel information using the original security token and receives an authorization failure.

HTTP Request

```

POST /ChannelManagementService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 656
SOAPAction: "http://www.openoandm.org/isbm/GetChannel"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>Application1</wsse:Username>
        <wsse:Password>&lt;s9.vQfLDx9LgL</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:GetChannel xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
    </isbm:GetChannel>
  </soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 500 Internal Server Error
Content-Type: text/xml; charset=utf-8
Content-Length: 401

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <soap:Fault>

```

```

    <faultcode>soap:Client</faultcode>
    <faultstring>Channel is not accessible.</faultstring>
    <detail>
      <isbm:ChannelFault xmlns:isbm="http://www.openoandm.org/isbm/">
    </detail>
  </soap:Fault>
</soap:Body>
</soap:Envelope>

```

5. GetChannels

The Application retrieves information about channels filtered by the newly assigned security token.

HTTP Request

```

POST /ChannelManagementService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 559
SOAPAction: "http://www.openoandm.org/isbm/GetChannels"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>Application2</wsse:Username>
        <wsse:Password>chHM?rFum{48mg</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:GetChannels xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 442

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:GetChannelsResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:Channel>
        <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
        <isbm:ChannelType>Publication</isbm:ChannelType>
      </isbm:Channel>
    </isbm:GetChannelsResponse>
  </soap:Body>
</soap:Envelope>

```

6. DeleteChannel

The Application removes the channel from the ws-ISBM Service Provider.

HTTP Request

POST /ChannelManagementService HTTP/1.1

Host: ws-isbm.example.com

Content-Type: text/xml; charset=utf-8

Content-Length: 659

SOAPAction: "http://www.openoandm.org/isbm/DeleteChannel"

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>Application2</wsse:Username>
        <wsse:Password>chHM?rFum{48mg</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm>DeleteChannel xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
    </isbm>DeleteChannel>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

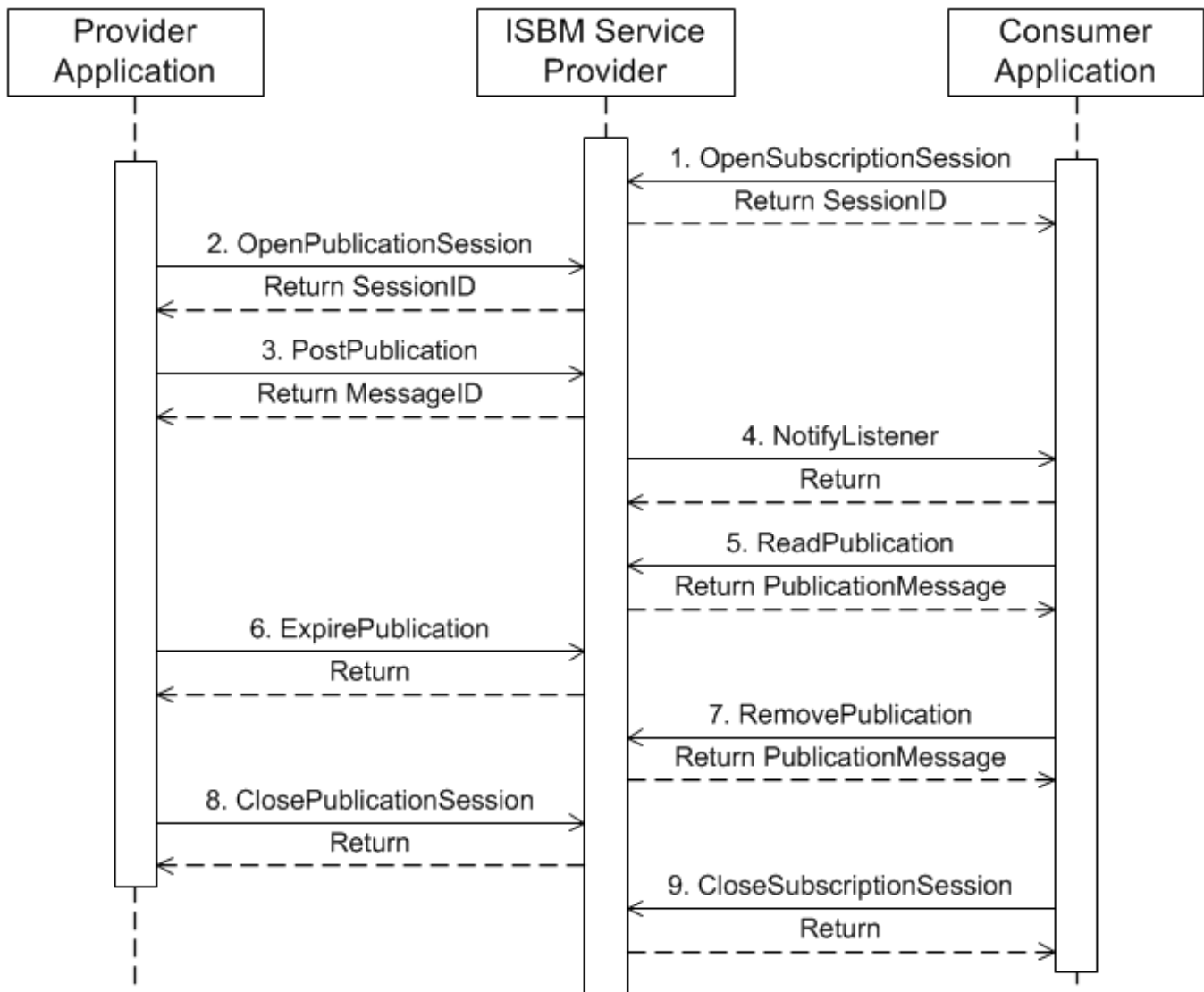
HTTP/1.1 200 OK

Content-Type: text/xml; charset=utf-8

Content-Length: 238

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm>DeleteChannelResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

A.2 Publish-Subscribe Example



1. OpenSubscriptionSession

The Consumer Application opens a subscription session with the ISBM Service Provider and receives a session identifier.

HTTP Request

```

POST /ConsumerPublicationService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 812
SOAPAction: "http://www.openoandm.org/isbm/OpenSubscriptionSession"
  
```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
  
```

```

    <wsse:UsernameToken>
      <wsse:Username>ConsumerApplication</wsse:Username>
      <wsse:Password>Dj8(bCU)4bnhjc</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
</soap:Header>
<soap:Body>
  <isbm:OpenSubscriptionSession xmlns:isbm="http://www.openoandm.org/isbm/">
    <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
    <isbm:Topic>Text</isbm:Topic>
    <isbm:ListenerURL>http://consumer.example.com/NotificationService</isbm:ListenerURL>
  </isbm:OpenPublicationSession>
</soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 366

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:OpenSubscriptionSessionResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>e94c645a-6450-411e-8ec7-4b70620d3a98</isbm:SessionID>
    </isbm:OpenSubscriptionSessionResponse>
  </soap:Body>
</soap:Envelope>

```

2. OpenPublicationSession

The Provider Application opens a publication session with the ISBM Service Provider and receives a session identifier.

HTTP Request

```

POST /ProviderPublicationService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 684
SOAPAction: "http://www.openoandm.org/isbm/OpenPublicationSession"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ProviderApplication</wsse:Username>
        <wsse:Password>qEJaz4F?U4rW;q</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:OpenPublicationSession xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
    </isbm:OpenPublicationSession>
  </soap:Body>
</soap:Envelope>

```

```

    </isbm:OpenPublicationSession>
  </soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 364

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:OpenPublicationSessionResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>ac0ee730-ca88-421a-b348-ce0a1babdb1c</isbm:SessionID>
    </isbm:OpenPublicationSessionResponse>
  </soap:Body>
</soap:Envelope>

```

3. PostPublication

The Provider Application posts a publication message to the ISBM Service Provider and receives a message identifier.

HTTP Request

```

POST /ProviderPublicationService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 799
SOAPAction: "http://www.openoandm.org/isbm/PostPublication"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ProviderApplication</wsse:Username>
        <wsse:Password>qEJaz4F?U4rW;q</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:PostPublication xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>ac0ee730-ca88-421a-b348-ce0a1babdb1c</isbm:SessionID>
      <isbm:MessageContent>
        <Text>Hello World!</Text>
      </isbm:MessageContent>
      <isbm:Topic>Text</isbm:Topic>
    </isbm:PostPublication>
  </soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8

```

Content-Length: 350

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:PostPublicationResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:MessageID>8007a3fa-70e3-4e90-a2b9-d8469cae2e5a</isbm:MessageID>
    </isbm:PostPublicationResponse>
  </soap:Body>
</soap:Envelope>
```

4. NotifyListener

The ISBM Service Provider notifies the Consumer Application of an applicable publication message.

HTTP Request

```
POST /NotifyListener HTTP/1.1
Host: consumer.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 444
SOAPAction: "http://www.openoandm.org/isbm/NotifyListener"
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:NotifyListener xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>e94c645a-6450-411e-8ec7-4b70620d3a98</isbm:SessionID>
      <isbm:MessageID>8007a3fa-70e3-4e90-a2b9-d8469cae2e5a</isbm:MessageID>
      <isbm:Topic>Text</isbm:Topic>
    </isbm:NotifyListener>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 239
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:NotifyListenerResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

5. ReadPublication

The Consumer Application reads the publication message from the ISBM Service Provider.

HTTP Request

```
POST /ConsumerPublicationService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 672
SOAPAction: "http://www.openoandm.org/isbm/ReadPublication"
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ConsumerApplication</wsse:Username>
        <wsse:Password>Dj8(bCU)4bnhjc</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:ReadPublication xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>e94c645a-6450-411e-8ec7-4b70620d3a98</isbm:SessionID>
    </isbm:ReadPublication>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 552
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:ReadPublicationResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:PublicationMessage>
        <isbm:MessageID>8007a3fa-70e3-4e90-a2b9-d8469cae2e5a</isbm:MessageID>
        <isbm:MessageContent>
          <Text>Hello World!</Text>
        </isbm:MessageContent>
        <isbm:Topic>Text</isbm:Topic>
      </isbm:PublicationMessage>
    </isbm:ReadPublicationResponse>
  </soap:Body>
</soap:Envelope>
```

6. ExpirePublication

The Provider Application manually expires the publication message from the ISBM Service Provider. The message is still visible to the Consumer Application since it has already been read.

HTTP Request

```
POST /ProviderPublicationService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 752
SOAPAction: "http://www.openoandm.org/isbm/ExpirePublication"
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
```



```

    <wsse:UsernameToken>
      <wsse:Username>ProviderApplication</wsse:Username>
      <wsse:Password>qEJaz4F?U4rW;q</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
</soap:Header>
<soap:Body>
  <isbm:ExpirePublication xmlns:isbm="http://www.openoandm.org/isbm/">
    <isbm:SessionID>ac0ee730-ca88-421a-b348-ce0a1babdb1c</isbm:SessionID>
    <isbm:MessageID>8007a3fa-70e3-4e90-a2b9-d8469cae2e5a</isbm:MessageID>
  </isbm:ExpirePublication>
</soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 242

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:ExpirePublicationResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>

```

7. RemovePublication

The Consumer Application removes the publication message from the ISBM Service Provider.

HTTP Request

```

POST /ConsumerPublicationService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 677
SOAPAction: "http://www.openoandm.org/isbm/RemovePublication"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ConsumerApplication</wsse:Username>
        <wsse:Password>Dj8(bCU)4bnhjc</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:RemovePublication xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>e94c645a-6450-411e-8ec7-4b70620d3a98<</isbm:SessionID>
    </isbm:RemovePublication>
  </soap:Body>
</soap:Envelope>

```

HTTP Response

HTTP/1.1 200 OK
 Content-Type: text/xml; charset=utf-8
 Content-Length: 242

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:RemovePublicationResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

8. ClosePublicationSession

The Provider Application closes the publication session with the ISBM Service Provider.

HTTP Request

POST /ProviderPublicationService HTTP/1.1
 Host: ws-isbm.example.com
 Content-Type: text/xml; charset=utf-8
 Content-Length: 688
 SOAPAction: "http://www.openoandm.org/isbm/ClosePublicationSession"

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ProviderApplication</wsse:Username>
        <wsse:Password>qEJaz4F?U4rW;q</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:ClosePublicationSession xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>ac0ee730-ca88-421a-b348-ce0a1babdb1c</isbm:SessionID>
    </isbm:ClosePublicationSession>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

HTTP/1.1 200 OK
 Content-Type: text/xml; charset=utf-8
 Content-Length: 248

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:ClosePublicationSessionResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

9. CloseSubscriptionSession

The Consumer Application closes the subscription session with the ISBM Service Provider.

HTTP Request

POST /ConsumerPublicationService HTTP/1.1

Host: ws-isbm.example.com

Content-Type: text/xml; charset=utf-8

Content-Length: 690

SOAPAction: "http://www.openoandm.org/isbm/ClosePublicationSession"

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ConsumerApplication</wsse:Username>
        <wsse:Password>Dj8(bCU)4bnhjc</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:CloseSubscriptionSession xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>e94c645a-6450-411e-8ec7-4b70620d3a98</isbm:SessionID>
    </isbm:CloseSubscriptionSession>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

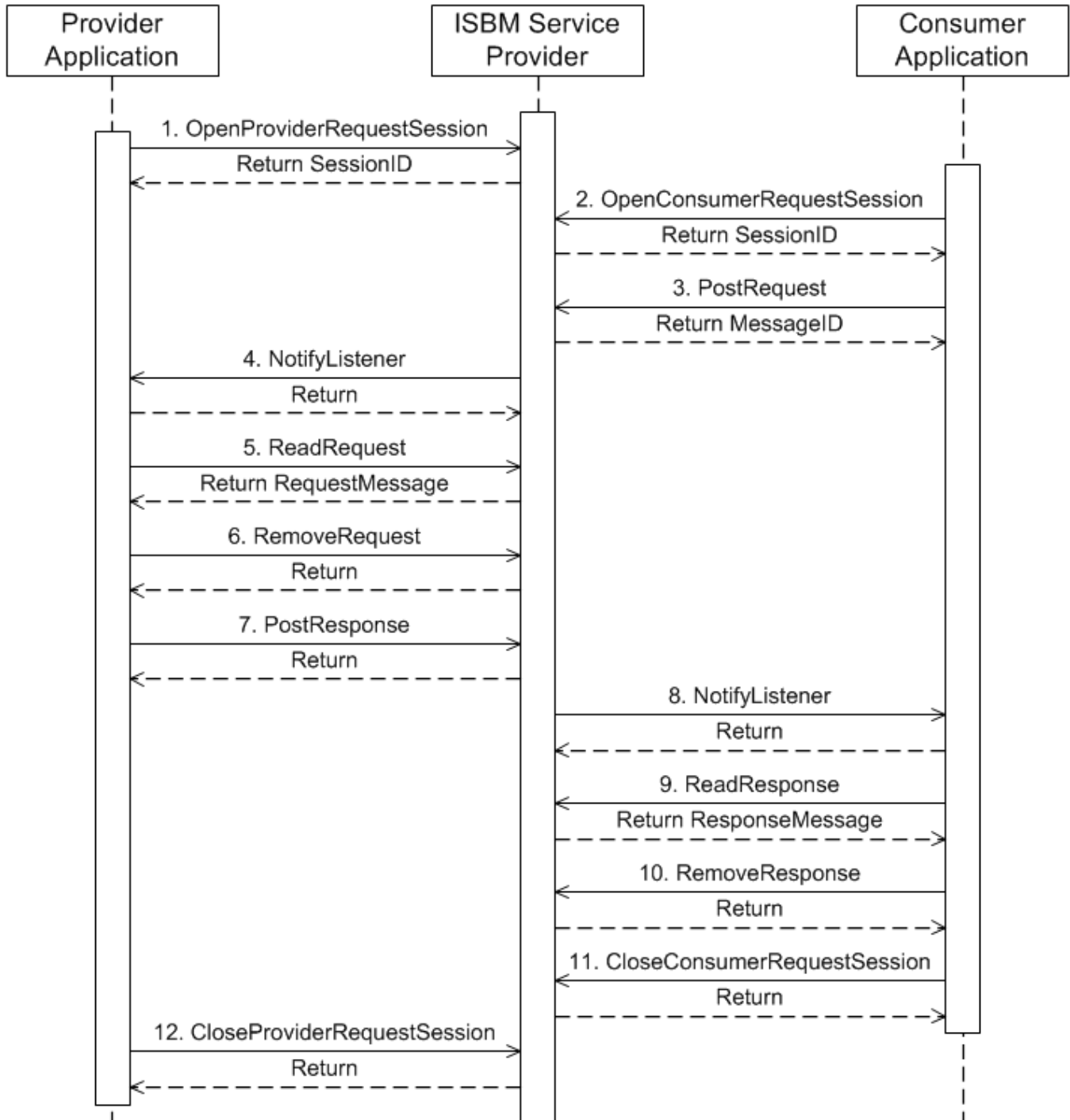
HTTP/1.1 200 OK

Content-Type: text/xml; charset=utf-8

Content-Length: 249

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:CloseSubscriptionSessionResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

A.3 Request-Response Example



1. OpenProviderRequestSession

The Provider Application opens a provider request session with the ISBM Service Provider and receives a session identifier.

HTTP Request

```
POST /ProviderRequestService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 819
SOAPAction: "http://www.openoandm.org/isbm/OpenProviderRequestSession"
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ProviderApplication</wsse:Username>
        <wsse:Password>9gy#gXENxph8?W</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:OpenProviderRequestSession xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
      <isbm:Topic>Text</isbm:Topic>
      <isbm:ListenerURL>http://provider.example.com/NotificationService</isbm:ListenerURL>
    </isbm:OpenProviderRequestSession>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 372
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:OpenProviderRequestSessionResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>16ee00f6-8fa9-4e80-8c36-a9d6d2bdb551</isbm:SessionID>
    </isbm:OpenProviderRequestSessionResponse>
  </soap:Body>
</soap:Envelope>
```

2. OpenConsumerRequestSession

The Consumer Application opens a consumer request session with the ISBM Service Provider and receives a session identifier.

HTTP Request

```
POST /ConsumerRequestService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 783
SOAPAction: "http://www.openoandm.org/isbm/OpenConsumerRequestSession"
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
```

```

<soap:Header>
  <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username>ConsumerApplication</wsse:Username>
      <wsse:Password>^Um.7oFM9jrnnC</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
</soap:Header>
<soap:Body>
  <isbm:OpenConsumerRequestSession xmlns:isbm="http://www.openoandm.org/isbm/">
    <isbm:ChannelURI>/Enterprise/Site/Area/WorkCenter</isbm:ChannelURI>
    <isbm:ListenerURL>http://consumer.example.com/NotificationService</isbm:ListenerURL>
  </isbm:OpenConsumerRequestSession>
</soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 372

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:OpenConsumerRequestSessionResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>a9b5c71a-d1b5-4fc8-81d1-ba1fee3af0df</isbm:SessionID>
    </isbm:OpenConsumerRequestSessionResponse>
  </soap:Body>
</soap:Envelope>

```

3. PostRequest

The Consumer Application posts a request message to the ISBM Service Provider and receives a message identifier.

HTTP Request

```

POST /ConsumerRequestService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 748
SOAPAction: "http://www.openoandm.org/isbm/PostRequest"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ConsumerApplication</wsse:Username>
        <wsse:Password>^Um.7oFM9jrnnC</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>

```

```

<isbm:PostRequest xmlns:isbm="http://www.openoandm.org/isbm/">
  <isbm:SessionID>a9b5c71a-d1b5-4fc8-81d1-ba1fee3af0df</isbm:SessionID>
  <isbm:MessageContent>
    <Text>Ping!</Text>
  </isbm:MessageContent>
</isbm:PostRequest>
</soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 342

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:PostRequestResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:MessageID>e8cfeeb1-d2fc-4167-88f7-c90d60fc53ee</isbm:MessageID>
    </isbm:PostRequestResponse>
  </soap:Body>
</soap:Envelope>

```

4. NotifyListener

The ISBM Service Provider notifies the Provider Application of an applicable request message.

HTTP Request

```

POST /NotifyListener HTTP/1.1
Host: provider.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 444
SOAPAction: "http://www.openoandm.org/isbm/NotifyListener"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:NotifyListener xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>16ee00f6-8fa9-4e80-8c36-a9d6d2bdb551</isbm:SessionID>
      <isbm:MessageID>e8cfeeb1-d2fc-4167-88f7-c90d60fc53ee</isbm:MessageID>
      <isbm:Topic>Text</isbm:Topic>
    </isbm:NotifyListener>
  </soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 239

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:NotifyListenerResponse xmlns:isbm="http://www.openoandm.org/isbm/">

```

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

5. ReadRequest

The Provider Application reads the request message from the ISBM Service Provider.

HTTP Request

```
POST /ProviderRequestService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 664
SOAPAction: "http://www.openoandm.org/isbm/ReadRequest"
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ProviderApplication</wsse:Username>
        <wsse:Password>9gy#gXENxph8?W</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:ReadRequest xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>16ee00f6-8fa9-4e80-8c36-a9d6d2bdb551</isbm:SessionID>
    </isbm:ReadRequest>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 529
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:ReadRequestResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:RequestMessage>
        <isbm:MessageID>e8cfeeb1-d2fc-4167-88f7-c90d60fc53ee</isbm:MessageID>
        <isbm:MessageContent>
          <Text>Ping!</Text>
        </isbm:MessageContent>
        <isbm:Topic>Text</isbm:Topic>
      </isbm:RequestMessage>
    </isbm:ReadRequestResponse>
  </soap:Body>
</soap:Envelope>
```

6. RemoveRequest

The Provider Application removes the request message from the ISBM Service Provider.

HTTP Request

POST /ProviderRequestService HTTP/1.1

Host: ws-isbm.example.com

Content-Type: text/xml; charset=utf-8

Content-Length: 669

SOAPAction: "http://www.openoandm.org/isbm/RemoveRequest"

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ProviderApplication</wsse:Username>
        <wsse:Password>9gy#gXENxph8?W</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:RemoveRequest xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>16ee00f6-8fa9-4e80-8c36-a9d6d2bdb551</isbm:SessionID>
    </isbm:RemoveRequest>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

HTTP/1.1 200 OK

Content-Type: text/xml; charset=utf-8

Content-Length: 238

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:RemoveRequestResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

7. PostResponse

The Provider Application posts a response message to the ISBM Service Provider.

HTTP Request

POST /ProviderRequestService HTTP/1.1

Host: ws-isbm.example.com

Content-Type: text/xml; charset=utf-8

Content-Length: 840

SOAPAction: "http://www.openoandm.org/isbm/PostResponse"

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ProviderApplication</wsse:Username>
```

```

        <wsse:Password>9gy#gXENxph8?W</wsse:Password>
    </wsse:UsernameToken>
</wsse:Security>
</soap:Header>
<soap:Body>
    <isbm:PostResponse xmlns:isbm="http://www.openoandm.org/isbm/">
        <isbm:SessionID>16ee00f6-8fa9-4e80-8c36-a9d6d2bdb551</isbm:SessionID>
        <isbm:RequestMessageID>e8cfeeb1-d2fc-4167-88f7-c90d60fc53ee</isbm:RequestMessageID>
        <isbm:MessageContent>
            <Text>Pong!</Text>
        </isbm:MessageContent>
    </isbm:PostResponse>
</soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 237

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <soap:Body>
        <isbm:PostResponseResponse xmlns:isbm="http://www.openoandm.org/isbm/">
    </soap:Body>
</soap:Envelope>

```

8. NotifyListener

The ISBM Service Provider notifies the Consumer Application of an applicable response message.

HTTP Request

```

POST /NotifyListener HTTP/1.1
Host: consumer.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 498
SOAPAction: "http://www.openoandm.org/isbm/NotifyListener"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <soap:Body>
        <isbm:NotifyListener xmlns:isbm="http://www.openoandm.org/isbm/">
            <isbm:SessionID>a9b5c71a-d1b5-4fc8-81d1-ba1fee3af0df</isbm:SessionID>
            <isbm:MessageID>af250a33-d5af-4c25-bb57-56802d8fea79</isbm:MessageID>
            <isbm:RequestMessageID>e8cfeeb1-d2fc-4167-88f7-c90d60fc53ee</isbm:RequestMessageID>
        </isbm:NotifyListener>
    </soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 239

```

```

<?xml version="1.0" encoding="UTF-8"?>

```

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:NotifyListenerResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

9. ReadResponse

The Consumer Application reads the response message from the ISBM Service Provider.

HTTP Request

```
POST /ConsumerRequestService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 756
SOAPAction: "http://www.openoandm.org/isbm/ReadResponse"
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ConsumerApplication</wsse:Username>
        <wsse:Password>^Um.7oFM9jrnnc</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:ReadResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>a9b5c71a-d1b5-4fc8-81d1-ba1fee3af0df</isbm:SessionID>
      <isbm:RequestMessageID>e8cfecb1-d2fc-4167-88f7-c90d60fc53ee</isbm:RequestMessageID>
    </isbm:ReadResponse>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 495
```

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:ReadResponseResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:ResponseMessage>
        <isbm:MessageID>af250a33-d5af-4c25-bb57-56802d8fea79</isbm:MessageID>
        <isbm:MessageContent>
          <Text>Pong!</Text>
        </isbm:MessageContent>
      </isbm:ResponseMessage>
    </isbm:ReadResponseResponse>
  </soap:Body>
</soap:Envelope>
```

10. RemoveResponse

The Consumer Application removes the response message from the ISBM Service Provider.

HTTP Request

POST /ConsumerPublicationService HTTP/1.1

Host: ws-isbm.example.com

Content-Type: text/xml; charset=utf-8

Content-Length: 760

SOAPAction: "http://www.openoandm.org/isbm/RemoveResponse"

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ConsumerApplication</wsse:Username>
        <wsse:Password>^Um.7oFM9jrnnC</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:RemoveResponse xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>a9b5c71a-d1b5-4fc8-81d1-ba1fee3af0df</isbm:SessionID>
      <isbm:RequestMessageID>e8cfeeb1-d2fc-4167-88f7-c90d60fc53ee</isbm:RequestMessageID>
    </isbm:RemoveResponse>
  </soap:Body>
</soap:Envelope>
```

HTTP Response

HTTP/1.1 200 OK

Content-Type: text/xml; charset=utf-8

Content-Length: 239

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:RemoveResponseResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>
```

11. CloseConsumerRequestSession

The Consumer Application closes the consumer request session with the ISBM Service Provider.

HTTP Request

POST /ConsumerRequestService HTTP/1.1

Host: ws-isbm.example.com

Content-Type: text/xml; charset=utf-8

Content-Length: 696

SOAPAction: "http://www.openoandm.org/isbm/CloseConsumerRequestSession"

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
```

```

<soap:Header>
  <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username>ConsumerApplication</wsse:Username>
      <wsse:Password>^Um.7oFM9jrnnC</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
</soap:Header>
<soap:Body>
  <isbm:CloseConsumerRequestSession xmlns:isbm="http://www.openoandm.org/isbm/">
    <isbm:SessionID>a9b5c71a-d1b5-4fc8-81d1-ba1fee3af0df</isbm:SessionID>
  </isbm:CloseConsumerRequestSession>
</soap:Body>
</soap:Envelope>

```

HTTP Response

```

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: 252

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <isbm:CloseConsumerRequestSessionResponse xmlns:isbm="http://www.openoandm.org/isbm/">
  </soap:Body>
</soap:Envelope>

```

12. CloseProviderRequestSession

The Provider Application closes the provider request session with the ISBM Service Provider.

HTTP Request

```

POST /ProviderRequestService HTTP/1.1
Host: ws-isbm.example.com
Content-Type: text/xml; charset=utf-8
Content-Length: 696
SOAPAction: "http://www.openoandm.org/isbm/CloseProviderRequestSession"

```

```

<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <wsse:Security xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken>
        <wsse:Username>ProviderApplication</wsse:Username>
        <wsse:Password>9gy#gXENxph8?W</wsse:Password>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <isbm:CloseProviderRequestSession xmlns:isbm="http://www.openoandm.org/isbm/">
      <isbm:SessionID>16ee00f6-8fa9-4e80-8c36-a9d6d2bdb551</isbm:SessionID>
    </isbm:CloseProviderRequestSession>
  </soap:Body>
</soap:Envelope>

```

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

HTTP Response

HTTP/1.1 200 OK

Content-Type: text/xml; charset=utf-8

Content-Length: 252

```
<?xml version="1.0" encoding="UTF-8"?>  
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">  
  <soap:Body>  
    <isbm:CloseProviderRequestSessionResponse xmlns:isbm="http://www.openoandm.org/isbm/">  
  </soap:Body>  
</soap:Envelope>
```

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