[MS-OXWCONFIG]:
Web Service Configuration Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
04/10/2009	.1	Major	Initial Availability.
07/15/2009	1.0	Major	Revised and edited for technical content.
11/04/2009	1.1.0	Minor	Updated the technical content.
02/10/2010	2.0.0	Major	Updated and revised the technical content.

Table of Contents

1 Introduction

This document specifies the Web Service Configuration protocol, which sends the request-response messages for retrieving configuration information that describes policy that clients use to either enforce or advise users.

1.1 Glossary

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

Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Socket Layer (HTTPS)
mailbox
Simple Mail Transfer Protocol (SMTP)
SOAP body
SOAP header
Web server
Web Services Description Language (WSDL)
WSDL message
XML
XML schema
XML namespace

The following terms are specific to this document:

organization policy: A policy that is comprised of a condition part and an action part. The condition part is expressed as a sequence of predicates that are evaluated by an e-mail client. The action part specifies what action the e-mail client takes if the condition is met.

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

1.2 References

1.2.1 Normative References

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

[MS-OXGLOS] Microsoft Corporation, "Exchange Server Protocols Master Glossary", June 2008.

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

[RFC3066] Alvestrand, H., "Tags for the Identification of Languages", RFC 3066, January 2001, http://www.ietf.org/rfc/rfc3066.txt.

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

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

[XMLNS] World Wide Web Consortium, "Namespaces in XML 1.0 (Second Edition)", August 2006, http://www.w3.org/TR/REC-xml-names/.

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

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

1.2.2 Informative References

None.

1.3 Protocol Overview

The Web Service Configuration protocol sends the request-response messages that retrieve **organization policy** configuration information for a **mailbox**. Clients use the **SOAP** protocol [SOAP1.1] to contact the Web Service Configuration service.

1.4 Relationship to Other Protocols

The Web Service Configuration protocol uses SOAP over **HTTP** and SOAP over **HTTPS**, as shown in the following figures.

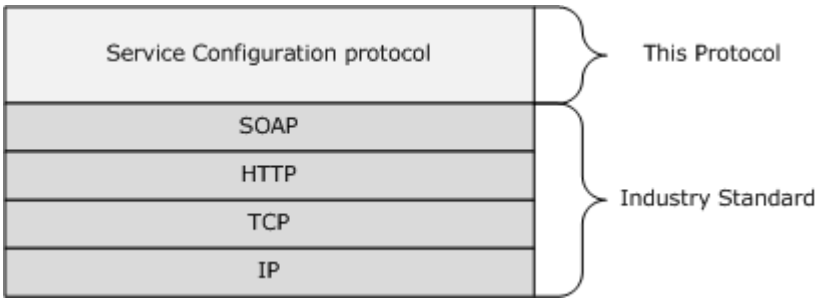

Figure 1: SOAP over HTTP

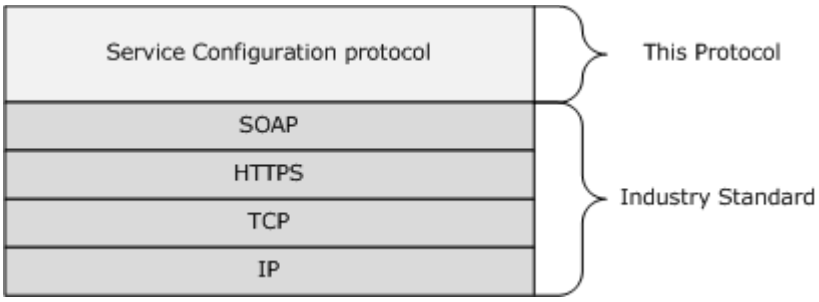

Figure 2: SOAP over HTTPS

1.5 Prerequisites/Preconditions

The URL of the Web Service Configuration protocol can be retrieved by using the Autodiscover Publishing and Lookup SOAP-Based Web Service protocol [MS-OXWSADISC].

1.6 Applicability Statement

The Web Service Configuration protocol can be used when access to organization policy configuration information is available and when communication with the server is enabled for SOAP over HTTP or SOAP over HTTPS.

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses SOAP 1.1, as specified in section 2.1.
- **Protocol Versions:** This protocol specifies only one **WSDL** portType version.
- **Security and Authentication Methods:** This protocol relies on the **Web server** that is hosting it to perform authentication.
- **Capability Negotiation:** None.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

The SOAP version supported is SOAP 1.1. For details, see [SOAP1.1].

2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as defined in [XMLSCHEMA1] and [XMLSCHEMA2], and Web Services Description Language (WSDL), as defined in [WSDL].

2.2.1 Namespaces

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

Prefix	Namespace URI	Reference
soap	http://schemas.xmlsoap.org/WSDL/soap/	[SOAP1.1]
tns	http://schemas.microsoft.com/exchange/services/2006/messages	[MS-OXWCONFIG]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1]
targetNamespace	http://schemas.microsoft.com/exchange/services/2006/messages	[MS-OXWCONFIG]
wsdl	http://schemas.xmlsoap.org/WSDL/	[WSDL]
t	http://schemas.microsoft.com/exchange/services/2006/types	[MS-OXWCONFIG]
m	http://schemas.microsoft.com/exchange/services/2006/messages	[MS-OXWCONFIG]

2.2.2 Simple Types

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

2.2.3 Complex Types

This specification does not define any common XML schema complex type definitions.

2.2.4 Elements

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

2.2.5 Attributes

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

2.2.6 Groups

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

2.2.7 Attribute Groups

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

2.2.8 Messages

This specification does not define any common **WSDL message** definitions.

3 Protocol Details

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

3.1 ExchangeServicePortType Server Details

The Web Service Configuration protocol defines a single port type.

```
<wsdl:portType name="ExchangeServicePortType">
   <wsdl:operation name="GetServiceConfiguration">
      <wsdl:input message="tns:GetServiceConfigurationSoapIn" />
      <wsdl:output message="tns:GetServiceConfigurationSoapOut" />
   </wsdl:operation>
</wsdl:portType>
```

3.1.1 Abstract Data Model

The Web Service Configuration protocol is a stateless protocol.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

This protocol includes one operation, **GetServiceConfiguration**, which is stateless and does not have sequencing rules.

Operation	Description
GetServiceConfiguration	The **GetServiceConfiguration** operation provides organization policy configuration information for a mailbox.

3.1.4.1 GetServiceConfiguration

The **GetServiceConfiguration** operation gets the service configuration for a mailbox.

```
<wsdl:operation name="GetServiceConfiguration">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetServiceConfigurat
ion" />
  <wsdl:input>
    <soap:body parts="request" use="literal"/>
    <soap:header message="tns:GetServiceConfigurationSoapIn" part="Impersonation"
use="literal"/>
    <soap:header message="tns:GetServiceConfigurationSoapIn" part="RequestVersion"
use="literal"/>
```

```
    <soap:header message="tns:GetServiceConfigurationSoapIn" part="MailboxCulture"
use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body parts="GetServiceConfigurationResult" use="literal" />
    <soap:header message="tns:GetServiceConfigurationSoapOut" part="ServerVersion"
use="literal"/>
  </wsdl:output>
</wsdl:operation>
```

3.1.4.1.1 Simple Types

The following XML schema simple definitions are specific to the **GetServiceConfiguration** operation.

3.1.4.1.1.1 t:ProtectionRuleActionKindType

The **ProtectionRuleActionKindType** type specifies the actions that are supported by the Protection rules service. Currently, only the *RightsProtectMessage* action is supported. The value MUST be **RightsProtectMessage**.

```
<xs:simpleType name="ProtectionRuleActionKindType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="RightsProtectMessage"/>
  </xs:restriction>
</xs:simpleType>
```

3.1.4.1.1.2 t:ProtectionRuleAllInternalType

The **ProtectionRuleAllInternalType** type specifies the AllInternal predicate. The semantics of *AllInternal* is that the predicate matches if all recipients of the e-mail message are internal to the organization of the sender of that e-mail message.

```
<xs:simpleType name="ProtectionRuleAllInternalType">
  <xs:restriction base="xs:string">
    <xs:length value="0"/>
  </xs:restriction>
</xs:simpleType>
```

3.1.4.1.1.3 t:ProtectionRuleTrueType

The **ProtectionRuleTrueType** type specifies the True predicate. The semantics of True is that it always matches.

```
<xs:simpleType name="ProtectionRuleTrueType">
  <xs:restriction base="xs:string">
    <xs:length value="0"/>
  </xs:restriction>
</xs:simpleType>
```

3.1.4.1.1.4 t:ProtectionRuleValueType

The **ProtectionRuleValueType** type specifies additional arguments to the RecipientIs and SenderDepartments predicates. The value MUST be a string with a minimum length of one character.

```
<xs:simpleType name="ProtectionRuleValueType">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
  </xs:restriction>
</xs:simpleType>
```

3.1.4.1.1.5 t:ServiceConfigurationType

The **ServiceConfigurationType** specifies the service configurations that are returned in the response.

```
<xs:simpleType name="ServiceConfigurationType">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="MailTips"/>
        <xs:enumeration value="UnifiedMessagingConfiguration"/>
        <xs:enumeration value="ProtectionRules" />
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>
```

Value	Description
MailTips	Represents the mail tips service configuration.
UnifiedMessagingConfiguration	Represents the unified messaging service configuration.
ProtectionRules	Represents the protection rules service configuration.

3.1.4.1.2 Complex Types

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

3.1.4.1.2.1 t: ArrayOfProtectionRulesType

The **ArrayOfProtectionRulesType** complex type specifies an array of protection rules.

```
<xs:complexType name="ArrayOfProtectionRulesType">
  <xs:sequence>
    <xs:element name="Rule" type="t:ProtectionRuleType" minOccurs="0" maxOccurs="unbounded">
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

Element	Type	Definition
Rule	**m:ProtectionRuleType**	Contains a single protection rule. This element can occur zero or more times. This element occurs zero times when no protection rules are defined by the organization. It occurs one or more times if at least one rule is defined by the organization.

3.1.4.1.2.2 m:ArrayOfServiceConfigurationResponseMessageType

The **ArrayOfServiceConfigurationResponseMessageType** type specifies an array of service configuration response messages.

```
<xs:complexType name="ArrayOfServiceConfigurationResponseMessageType">
  <xs:sequence>
    <xs:element name="ServiceConfigurationResponseMessageType"
        type="m:ServiceConfigurationResponseMessageType"
        minOccurs="1" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>
```

Element	Type	Definition
ServiceConfigurationResponseMessageType	**m:ServiceConfigurationResponseMessageType**	Contains a service configuration response message. This element MUST occur at least once and can occur two or more times.

3.1.4.1.2.3 m:ArrayOfServiceConfigurationType

The **ArrayOfServiceConfigurationType** type specifies the requested service configurations for a **GetServiceConfigurationSoapIn** message.

```
<xs:complexType name="ArrayOfServiceConfigurationType">
  <xs:choice minOccurs="1" maxOccurs="unbounded">
    <xs:element name="ConfigurationName" type="t:ServiceConfigurationType"/>
  </xs:choice>
</xs:complexType>
```

Element	Type	Definition
ConfigurationName	**t:ServiceConfigurationType**	Specifies the service configuration that is returned in the response. This element MUST occur at least once.

3.1.4.1.2.4 m:GetServiceConfigurationResponseMessageType

The **GetServiceConfigurationResponseMessageType** type contains the response message for a **GetServiceConfiguration** operation. The **GetServiceConfigurationResponseMessageType** type extends the **ResponseMessageType**.

```
<xs:complexType name="GetServiceConfigurationResponseMessageType">
  <xs:complexContent>
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element name="ResponseMessages"
type="m:ArrayOfServiceConfigurationResponseMessageType" minOccurs="0" maxOccurs="1"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Element	Type	Definition
ResponseMessages	**m:ArrayOfServiceConfigurationResponseMessageType**	Contains an array of service configuration responsemessages. This element MUST occur if there are configuration settings.

3.1.4.1.2.5 m:GetServiceConfigurationType

The **GetServiceConfigurationType** type specifies the requested service configurations and identifies the sender or recipient actor who is making the request. The recipient actor can be different from the user who authenticated with the server. The **GetServiceConfigurationType** type extends the **BaseRequestType** type.

```
<xs:complexType name="GetServiceConfigurationType">
  <xs:complexContent>
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="ActingAs" type="t:EmailAddressType"/>
        <xs:element minOccurs="1" maxOccurs="1" name="RequestedConfiguration"
type="m:ArrayOfServiceConfigurationType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Element	Type	Definition
ActingAs	**t:EmailAddressType**	Specifies who the caller is sending as. If this element is not present, the authenticated user is assumed to be the sender. The **ActingAs** element MUST be included for requesting sender

Element	Type	Definition
		hints. This element is optional.
RequestedConfiguration	**m:ArrayOfServiceConfigurationType**	Specifies the requested service configurations. This element MUST be present.

3.1.4.1.2.6 t:MailTipsServiceConfiguration

The **MailTipsServiceConfiguration** complex type contains service configuration for the **mail tips** service. The **MailTipsServiceConfiguration** complex type extends the **ServiceConfigurationType** simple type (section 3.1.4.1.1.5).

```
<xs:complexType name="MailTipsServiceConfiguration">
  <xs:complexContent>
    <xs:extension base="t:ServiceConfiguration">
      <xs:sequence>
<xs:element name="MailTipsEnabled" type="xs:boolean" />
<xs:element minOccurs="1" maxOccurs="1" name="MaxRecipientsPerGetMailTipsRequest"
type="xs:int" />
        <xs:element minOccurs="1" maxOccurs="1" name="MaxMessageSize" type="xs:int" />
        <xs:element minOccurs="1" maxOccurs="1" name="LargeAudienceThreshold" type="xs:int"
/>
        <xs:element minOccurs="1" maxOccurs="1" name="ShowExternalRecipientCount"
type="xs:boolean" />
        <xs:element minOccurs="1" maxOccurs="1" name="InternalDomains"
type="t:SmtpDomainList"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Element	Type	Definition
<MailTipsEnabled>	xs:boolean	Specifies whether the mail tips service is available.
<MaxRecipientsPerGetMailTipsRequest>	xs:int	Specifies the maximum number of **recipients** that can be passed to the **GetMailTips** operation (section 3.1.4.1). This element MUST be included if the **MailTipsServiceConfiguration** complex type is used and MUST be a non-negative integer.
<MaxMessageSize>	xs:int	Specifies the maximum **message** size that the user identified by the <ActingAs> element can send. This element MUST be included if the **MailTipsServiceConfiguration** complex type is used and MUST be a non-negative integer.
<LargeAudienceThreshold>	xs:int	Specifies the large audience threshold for clients.

Element	Type	Definition
		This element MUST be included if the **MailTipsServiceConfiguration** complex type is used and MUST be a non-negative integer.
<ShowExternalRecipientCount>	xs:boolean	Specifies whether consumers of the **GetMailTips** operation (section 3.1.4.1) should show mail tips that indicate the number of external recipients to which a message is addressed. This element MUST be included if the **MailTipsServiceConfiguration** complex type is used.
<InternalDomains>	t:SmtpDomainList	Specifies a list of **SMTP domains** that are considered internal to an organization. This information is provided so that mail client software can provide external recipient mail tips when offline. This element MUST be included if the **MailTipsServiceConfiguration** complex type is used.

3.1.4.1.2.7 t:ProtectionRuleActionType

The **ProtectionRuleActionType** type specifies the action that the client can take if the condition part of the associated rule matches.

```
<xs:complexType name="ProtectionRuleActionType">
  <xs:sequence>
    <xs:element name="Argument" type="t:ProtectionRuleArgumentType" minOccurs="0"
maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="Name" use="required" type="t:ProtectionRuleActionKindType" />
</xs:complexType>
```

Element	Type	Definition
Argument	**t:ProtectionRuleArgumentType**	Specifies arguments to the action. This element MUST NOT occur if the specified action does not require arguments to be specified. This element can occur one or more times if an action requires one or more arguments. The **RightsProtectMessage**action MUST contain a single argument.

Attribute	Type	Definition
Name	**t:ProtectionRuleActionKindType**	Specifies the name of the action. This attribute MUST be present.

3.1.4.1.2.8 t:ProtectionRuleAndType

The **ProtectionRuleAndType** type specifies that there MUST be more than one protection rule condition. Elements of type **ProtectionRuleAndType** MUST contain at least one child element.

```
<xs:complexType name="ProtectionRuleAndType">
  <xs:sequence>
    <xs:choice minOccurs="1" maxOccurs="unbounded">
      <xs:element name="AllInternal" type="t:ProtectionRuleAllInternalType" />
      <xs:element name="And" type="t:ProtectionRuleAndType" />
      <xs:element name="RecipientIs" type="t:ProtectionRuleRecipientIsType" />
      <xs:element name="SenderDepartments" type="t:ProtectionRuleSenderDepartmentsType" />
      <xs:element name="True" type="t:ProtectionRuleTrueType" />
    </xs:choice>
  </xs:sequence>
</xs:complexType>
```

Element	Type	Definition
AllInternal	**t:ProtectionRuleAllInternalType**	Evaluates to **TRUE** if all recipients of an e-mail message are internal to the sender's organization.
And	**t:ProtectionRuleAndType**	Specifies that all child elements MUST match to evaluate to **TRUE**.
RecipientIs	**t:ProtectionRuleRecipientIsType**	The **RecipientIs**condition evaluates to **TRUE** if any recipient of the e-mail Message matches any of the specified recipients in the child **Value** elements.
SenderDepartments	**t:ProtectionRuleSenderDepartmentsType**	The **SenderDepartments**condition evaluates to **TRUE** if the department of the sender matches any specified department in the child **Value** elements.
True	**t:ProtectionRuleTrueType**	Specifies a condition that always matches.

3.1.4.1.2.9 t:ProtectionRuleArgumentType

The **ProtectionRuleArgumentType** type specifies an attribute that is used to specify an argument to an action. The protection is identified by the **Value** attribute.

```
<xs:complexType name="ProtectionRuleArgumentType">
  <xs:attribute name="Value" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
      </xs:restriction>
```

```
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
```

Attribute	Type	Definition
Value	**xs:string**	Specifies the value of an argument to the action part of a protection rule. This attribute value MUST be a string of at least one character in length.

3.1.4.1.2.10 t:ProtectionRuleConditionType

The **ProtectionRuleConditionType** type specifies the condition part of a protection rule.

```
<xs:complexType name="ProtectionRuleConditionType">
  <xs:choice minOccurs="1" maxOccurs="1">
    <xs:element name="AllInternal" type="t:ProtectionRuleAllInternalType" />
    <xs:element name="And" type="t:ProtectionRuleAndType" />
    <xs:element name="RecipientIs" type="t:ProtectionRuleRecipientIsType" />
    <xs:element name="SenderDepartments" type="t:ProtectionRuleSenderDepartmentsType" />
    <xs:element name="True" type="t:ProtectionRuleTrueType" />
  </xs:choice>
</xs:complexType>
```

Element	Type	Definition
AllInternal	**t:ProtectionRuleAllInternalType**	The **AllInternal** condition evaluates to **TRUE** if all recipients of an e-mail message are internal to the sender's organization. If this element exists, the **And**, **RecipientsIs**, **SenderDeprtments**, and **True** elements MUST NOT exist as a direct child node of elements of type **ProtectionRuleConditionType**.
And	**t:ProtectionRuleAndType**	Specifies that all child elements MUST match to evaluate to **TRUE**. Specifies that there MUST be more than one protection rule child condition. If this element exists, the **AllInternal**, **RecipientsIs**, **SenderDeprtments**, and **True** elements MUST NOT exist as a direct child node of elements of type **ProtectionRuleConditionType**.
RecipientIs	**t:ProtectionRuleRecipientIsType**	Specifies that any recipient of the e-mail message matches any of the specified recipients in the

Element	Type	Definition
		child **Value** elements. If this element exists, the **And**, **AllInternal**, **SenderDeprtments**, and **True** elements MUST NOT exist as a direct child node of elements of type **ProtectionRuleConditionType**.
SenderDepartments	**t:ProtectionRuleSenderDepartmentsType**	Specifies that the department of the sender matches any of the specified departments in the child **Value** elements. If this element exists, the **And**, **RecipientsIs**, **AllInternal**, and **True** elements MUST NOT exist as a direct child node of elements of type **ProtectionRuleConditionType**.
True	**t:ProtectionRuleTrueType**	Specifies a condition that always matches. If this element exists, the **And**, **RecipientsIs**, **SenderDeprtments**, and **AllInternal** elements MUST NOT exist as a direct child node of elements of type **ProtectionRuleConditionType**.

3.1.4.1.2.11 t:ProtectionRuleRecipientIsType

The **ProtectionRuleRecipientIsType** type specifies a condition that matches if any recipients of the e-mail message match any specified recipients in the child **Value** elements.

```
<xs:complexType name="ProtectionRuleRecipientIsType">
  <xs:sequence>
    <xs:element name="Value" type="t:ProtectionRuleValueType" minOccurs="1"
maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

Element	Type	Definition
Value	**t: ProtectionRuleValueType**	Specifies an argument to the **RecipientIs** condition. This element MUST occur at least once.

3.1.4.1.2.12 t:ProtectionRuleSenderDepartmentsType

The **ProtectionRuleSenderDepartmentsType** type specifies a condition that matches if the department of the sender of the e-mail message matches any of the specified departments in the child **Value** elements.

```
<xs:complexType name="ProtectionRuleSenderDepartmentsType">
  <xs:sequence>
    <xs:element name="Value" type="t:ProtectionRuleValueType" minOccurs="1"
maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

Element	Type	Definition
Value	**t: ProtectionRuleValueType**	Specifies an argument to the **SenderDepartments** condition. This element MUST occur at least once.

3.1.4.1.2.13 t:ProtectionRulesServiceConfiguration

The **ProtectionRulesServiceConfiguration** type specifies the configuration of the protection rules service. The configuration is comprised of a list of rules, internal domains, and a refresh interval. The **ProtectionRulesServiceConfiguration** type extends the **ServiceConfiguration** type.

```
<xs:complexType name="ProtectionRulesServiceConfiguration">
  <xs:complexContent>
    <xs:extension base="t:ServiceConfiguration">
      <xs:sequence>
        <xs:element name="Rules" type="t:ArrayOfProtectionRulesType" minOccurs="1"
maxOccurs="1" />
        <xs:element name="InternalDomains" type="t:SmtpDomainList" minOccurs="1"
maxOccurs="1" />
      </xs:sequence>
      <xs:attribute name="RefreshInterval" use="required">
        <xs:simpleType>
          <xs:restriction base="xs:int">
            <xs:minInclusive value="1"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:attribute>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Element	Type	Definition
Rules	**t:ArrayOfProtectionRulesType**	Specifies the collection of rules to be evaluated. This element MUST be included if the **ProtectionRulesServiceConfiguration** type is used.
InternalDomains	**t:SmtpDomainList**	Specifies the list of internal SMTPdomains of the organization. This element MUST be included if the **ProtectionRulesServiceConfiguration** type is used.

Attribute	Type	Definition
RefreshInterval	**xs:int**	Specifies how often, in whole hours, the client SHOULD request protection rules from the server. This element MUST be included if the **ProtectionRulesServiceConfiguration** type is used.

3.1.4.1.2.14 t:ProtectionRuleType

The **ProtectionRuleType** type specifies a single protection rule.

```
<xs:complexType name="ProtectionRuleType">
  <xs:sequence>
    <xs:element name="Condition" type="t:ProtectionRuleConditionType" minOccurs="1"
maxOccurs="1"/>
    <xs:element name="Action" type="t:ProtectionRuleActionType" minOccurs="1" maxOccurs="1"/>
  </xs:sequence>
  <xs:attribute name="Name" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="UserOverridable" type="xs:boolean" use="required" />
  <xs:attribute name="Priority" use="required" >
    <xs:simpleType>
      <xs:restriction base="xs:int">
        <xs:minInclusive value="1"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
```

Element	Type	Definition
Condition	**t:ProtectionRuleConditionType**	Specifies the condition that MUST be satisfied for the action part of the rule to be executed. This element MUST be included if the **ProtectionRuleType** type is used.
Action	**t:ProtectionRuleActionType**	Specifies what action MUST be executed if the condition part of the rule matches. This element MUST be included if the **ProtectionRuleType** type is used.

Attribute	Type	Definition
Name	**xs:string**	Specifies the name of the rule. This attribute MUST be included if the **ProtectionRuleType** type is used. This attribute value MUST contain a string of at least one character.

Attribute	Type	Definition
UserOverridable	**xs:boolean**	Specifies whether the rule is mandatory. If the rule is mandatory, this attribute value MUST be **FALSE**. This attribute MUST be included if the **ProtectionRuleType** type is used.
Priority	**xs:int**	Specifies the rule priority. The lower bound MUST be 1. This attribute MUST be included if the **ProtectionRuleType** type is used. This attribute value MUST contain an integer value of at least one.

3.1.4.1.2.15 t:ServiceConfiguration

The **ServiceConfiguration** type specifies the base type for the service configuration types.

```
<xs:complexType name="ServiceConfiguration">
</xs:complexType>
```

3.1.4.1.2.16 m:ServiceConfigurationResponseMessageType

The **ServiceConfigurationResponseMessageType** type specifies service configuration settings. The **ServiceConfigurationResponseMessageType** type extends the **ResponseMessageType**.

```
<xs:complexType name="ServiceConfigurationResponseMessageType">
  <xs:complexContent>
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element name="MailTipsConfiguration" type="t:MailTipsServiceConfiguration"
minOccurs="0" maxOccurs="1"/>
        <xs:element name="UnifiedMessagingConfiguration"
type="t:UnifiedMessageServiceConfiguration" minOccurs="0" maxOccurs="1"/>
        <xs:element name="ProtectionRulesConfiguration"
type="t:ProtectionRulesServiceConfiguration" minOccurs="0" maxOccurs="1"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Element	Type	Definition
MailTipsConfiguration	**MailTipsServiceConfiguration**	Contains service configuration for the mailtips service. This element **MUST** occur for mail tips configuration.
UnifiedMessagingConfiguration	**UnifiedMessageServiceConfiguration**	Contains service configuration for the unified message service. This element **MUST** occur for unified message

Element	Type	Definition
		configuration.
ProtectionRulesConfiguration	**t:ProtectionRulesServiceConfiguration**	Contains service configuration for the protection rules service. This element **MUST** occur for protection rules configuration.

3.1.4.1.2.17 t:SmtpDomain

The **SmtpDomain** type specifies a single domain.

```
<xs:complexType name="SmtpDomain">
  <xs:attribute name="Name" type="xs:string" use="required"/>
  <xs:attribute name="IncludeSubdomains" type="xs:boolean" use="optional"/>
</xs:complexType>
```

Attribute	Type	Definition
Name	**xs:string**	Specifies the name of a domain. This attribute MUST be set.
IncludeSubdomains	**xs:boolean**	Specifies whether sub-domains of the domain identified by the **Name** attribute are considered internal.

3.1.4.1.2.18 t:SmtpDomainList

The **SmtpDomainList** type specifies a list of internal domains in a user's organization.

```
<xs:complexType name="SmtpDomainList">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Domain" type="t:SmtpDomain"/>
  </xs:sequence>
</xs:complexType>
```

Element	Type	Definition
Domain	**t:SmtpDomain**	Specifies a single SMTPdomain. This element can occur 0 or more times.

3.1.4.1.2.19 t:UnifiedMessageServiceConfiguration

The **UnifiedMessageServiceConfiguration** type specifies the configuration for Unified Messaging service. The **UnifiedMessageServiceConfiguration** type extends the **ServiceConfiguration** type.

```
<xs:complexType name="UnifiedMessageServiceConfiguration">
  <xs:complexContent>
    <xs:extension base="t:ServiceConfiguration">
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="UmEnabled" type="xs:boolean" />
```

```
        <xs:element minOccurs="1" maxOccurs="1" name="PlayOnPhoneDialString"
type="xs:string"/>
        <xs:element minOccurs="1" maxOccurs="1" name="PlayOnPhoneEnabled" type="xs:boolean"
/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Element	Type	Definition
UmEnabled	**xs:boolean**	Specifies whether Unified Messaging is enabled. This element MUST be included if the **UnifiedMessageServiceConfiguration** type is used.
PlayOnPhoneDialString	**xs:string**	Specifies the telephone number for play-on-phone. This element MUST be included if the **UnifiedMessageServiceConfiguration** type is used.
PlayOnPhoneEnabled	**xs:boolean**	Specifies whether play-on-phone is enabled. This element MUST be included if the **UnifiedMessageServiceConfiguration** type is used.

3.1.4.1.3 Elements

The following XML schema element definitions are specific to this operation.

3.1.4.1.3.1 m:GetServiceConfiguration

The **GetServiceConfiguration** element specifies the base element for a **GetServiceConfiguration** request.

```
<xs:element name="GetServiceConfiguration" type="m:GetServiceConfigurationType"/>
```

3.1.4.1.3.2 m:GetServiceConfigurationResponse

The **GetServiceConfigurationResponse** element specifies the response message for a **GetServiceConfiguration** operation.

```
<xs:element name="GetServiceConfigurationResponse"
type="m:GetServiceConfigurationResponseMessageType"/>
```

3.1.4.1.4 Attributes

This specification does not define any specific XML schema attribute definitions for this operation.

3.1.4.1.5 Groups

This specification does not define any specific XML schema group definitions for this operation.

3.1.4.1.6 Attribute Groups

This specification does not define any specific XML schema attribute group definitions for this operation.

3.1.4.1.7 Messages

The following WSDL message definitions are specific to this operation.

3.1.4.1.7.1 GetServiceConfigurationSoapIn

The **GetServiceConfigurationSoapIn** message contains four parts.

Part Name	Element/Type	Description
request	**GetServiceConfiguration**	This part specifies the request.
Impersonation	**ExchangeImpersonation**	This part specifies Exchange Impersonation information.
RequestVersion	**RequestServerVersion**	This part specifies the schema version for the **GetServiceConfiguration** request.
MailboxCulture	**MailboxCulture**	This part specifies the culture to use for accessing the mailbox. The cultures are defined by [RFC3066].

3.1.4.1.7.2 GetServiceConfigurationSoapOut

The **GetServiceConfigurationSoapOut** message contains two parts.

Part Name	Element/Type	Description
GetServiceConfigurationResult	**GetServiceConfigurationResponse**	This part specifies the response.
ServerVersion	**ServerVersionInfo**	This part specifies the server version for the response.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

3.2 Client Details

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

3.2.1 Abstract Data Model

None.

3.2.2 Timers

None.

3.2.3 Initialization

None.

3.2.4 Message Processing Events and Sequencing Rules

None.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

None.

4 Protocol Examples

4.1 GetServiceConfiguration Request

The following example shows how to get sender hints for a user.

```
<?xml version="1.0" encoding="utf-8" ?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
               xmlns:xsd="http://www.w3.org/2001/XMLSchema"
               xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
               xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2010" />
  </soap:Header>

  <soap:Body>
    <GetServiceConfiguration
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ActingAs>
        <t:EmailAddress>user1@contoso.com</t:EmailAddress>
        <t:RoutingType>SMTP</t:RoutingType>
      </ActingAs>
      <RequestedConfiguration>
        <ConfigurationName>MailTips</ConfigurationName>
      </RequestedConfiguration>
    </GetServiceConfiguration>
  </soap:Body>

</soap:Envelope>
```

4.2 GetServiceConfiguration Response

The following is an example of a successful response from the **GetServiceConfiguration** service.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="14"
                         MinorVersion="0"
                         MajorBuildNumber="482"
                         MinorBuildNumber="17"
                         Version="Exchange2010"
                         xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                         xmlns:xsd="http://www.w3.org/2001/XMLSchema"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <GetServiceConfigurationResponse ResponseClass="Success"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
      <ResponseMessages>
        <ServiceConfigurationResponseMessageType ResponseClass="Success">
          <ResponseCode>NoError</ResponseCode>
          <m:MailTipsConfiguration
xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
```

```
            <t:MaxRecipientsPerGetMailTipsRequest
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">50</t:MaxRecipientsPerGet
MailTipsRequest>
            <t:MaxMessageSize
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">10485760</t:MaxMessageSiz
e>
            <t:LargeAudienceThreshold
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">25</t:LargeAudienceThresh
old>
            <t:ShowExternalRecipientCount
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">false</t:ShowExternalReci
pientCount>
            <t:InternalDomains
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
              <t:Domain Name="contoso.com" IncludeSubdomains="false"/>
              <t:Domain Name="fabrikam.com" IncludeSubdomains="false"/>
              <t:Domain Name="example.com" IncludeSubdomains="false"/>
            </t:InternalDomains>
          </m:MailTipsConfiguration>
        </ServiceConfigurationResponseMessageType>
      </ResponseMessages>
    </GetServiceConfigurationResponse>
  </s:Body>
</s:Envelope>
```

4.3 Unsuccessful Response

4.3.1 SOAP Exception

The following is an example of a SOAP fault caused by the request failing schema validation.

```
<?xml version="1.0" encoding="utf-8"?><s:Envelope
xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Body>
    <s:Fault>
      <faultcode
xmlns:a="http://schemas.microsoft.com/exchange/services/2006/types">a:ErrorSchemaValidation</
faultcode>
      <faultstring xml:lang="en-US">The request failed schema validation: The element
'RequestedConfiguration' in namespace
'http://schemas.microsoft.com/exchange/services/2006/messages' has incomplete content. List
of possible elements expected: 'ConfigurationName' in namespace
'http://schemas.microsoft.com/exchange/services/2006/messages'.</faultstring>
      <detail>
        <e:ResponseCode
xmlns:e="http://schemas.microsoft.com/exchange/services/2006/errors">ErrorSchemaValidation</e
:ResponseCode>
        <e:Message xmlns:e="http://schemas.microsoft.com/exchange/services/2006/errors">The
request failed schema validation.</e:Message>
        <e:MessageXml xmlns:e="http://schemas.microsoft.com/exchange/services/2006/errors">
          <t:LineNumber
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">16</t:LineNumber>
          <t:LinePosition
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">9</t:LinePosition>
          <t:Violation
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">The element
'RequestedConfiguration' in namespace
'http://schemas.microsoft.com/exchange/services/2006/messages' has incomplete content. List
```

```
of possible elements expected: 'ConfigurationName' in namespace
'http://schemas.microsoft.com/exchange/services/2006/messages'.</t:Violation>
        </e:MessageXml>
      </detail>
    </s:Fault>
  </s:Body>
</s:Envelope>
```

4.3.2 GetServiceConfiguration Error Response

The following is an example of a user specified in the **ActingAs** element not being found in the directory.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="14"
                         MinorVersion="0"
                         MajorBuildNumber="482"
                         MinorBuildNumber="17"
                         Version="Exchange2010"
                         xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
                         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                         xmlns:xsd="http://www.w3.org/2001/XMLSchema"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <GetServiceConfigurationResponse ResponseClass="Error"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <MessageText>The ActingAs parameter does not match a user in the
directory.</MessageText>
      <ResponseCode>ErrorInvalidArgument</ResponseCode>
      <DescriptiveLinkKey>0</DescriptiveLinkKey>
    </GetServiceConfigurationResponse>
  </s:Body>
</s:Envelope>
```

5 Security

5.1 Security Considerations for Implementers

The Service Configuration service does not use additional security mechanisms.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

The XML files that are listed in the following table are required in order to implement the functionality specified in this document. The contents of each file are included in this section.

File name	Description	Section
MS-OXWCONFIG.wsdl	Contains the WSDL for the implementation of this protocol.	6.1
MS-OXWCONFIG-messages.xsd	Contains the XML schema message definitions that are used in this protocol.	6.2
MS-OXWCONFIG-types.xsd	Contains the XML schema type definitions that are used in this protocol.	6.3

These files have to be placed in a common folder in order for the WSDL to validate and operate. Also, any schema files that are included in or imported into the MS-OXWCONFIG-types.xsd or MS-OXWCONFIG-messages.xsd schemas have to be placed in the common folder with these files.

6.1 WSDL

This section contains the contents of the MS-OXWCONFIG.wsdl file.

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
   <wsdl:types>
      <xs:schema id="messages" elementFormDefault="qualified" version="Exchange2010"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
         <xs:include schemaLocation="MS-OXWCONFIG-messages.xsd"/>
      </xs:schema>
   </wsdl:types>
   <wsdl:message name="GetServiceConfigurationSoapIn">
      <wsdl:part name="request" element="tns:GetServiceConfiguration"/>
      <wsdl:part name="Impersonation" element="t:ExchangeImpersonation"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
      <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
   </wsdl:message>
   <wsdl:message name="GetServiceConfigurationSoapOut">
      <wsdl:part name="GetServiceConfigurationResult"
element="tns:GetServiceConfigurationResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
   </wsdl:message>
   <wsdl:portType name="ExchangeServicePortType">
      <wsdl:operation name="GetServiceConfiguration">
         <wsdl:input message="tns:GetServiceConfigurationSoapIn"/>
         <wsdl:output message="tns:GetServiceConfigurationSoapOut"/>
      </wsdl:operation>
   </wsdl:portType>
   <wsdl:binding name="ExchangeServiceBinding" type="tns:ExchangeServicePortType">
      <wsdl:documentation>
         <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://ws-
i.org/schemas/conformanceClaim/"/>
```

```
      </wsdl:documentation>
      <soap:binding transport="http://schemas.xmlsoap.org/soap/http" style="document"/>
      <wsdl:operation name="GetServiceConfiguration">
         <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetServiceConfigurat
ion"/>
         <wsdl:input>
            <soap:body parts="request" use="literal"/>
            <soap:header message="tns:GetServiceConfigurationSoapIn" part="Impersonation"
use="literal"/>
            <soap:header message="tns:GetServiceConfigurationSoapIn" part="RequestVersion"
use="literal"/>
            <soap:header message="tns:GetServiceConfigurationSoapIn" part="MailboxCulture"
use="literal"/>
         </wsdl:input>
         <wsdl:output>
            <soap:body parts="GetServiceConfigurationResult" use="literal"/>
            <soap:header message="tns:GetServiceConfigurationSoapOut" part="ServerVersion"
use="literal"/>
         </wsdl:output>
      </wsdl:operation>
   </wsdl:binding>
</wsdl:definitions>
```

6.2 Messages Schema

This section contains the contents of the MS-OXWCONFIG-messages.xsd file and information about additional files that this schema file requires to operate correctly.

MS-OXWCONFIG-messages.xsd includes and imports the file listed in the following table. To operate correctly, this file has to be present in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

File name	Defining specification
MS-OXWSCDATA-messages.xsd	[MS-OXWSCDATA] section 6.3.
MS-OXWCONFIG-types.xsd	[MS-OXWCONFIG] section 6.3

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
elementFormDefault="qualified" version="Exchange2010" id="messages">
   <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWCONFIG-types.xsd"/>
   <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
   <xs:complexType name="ArrayOfServiceConfigurationResponseMessageType">
      <xs:sequence>
         <xs:element name="ServiceConfigurationResponseMessageType"
type="m:ServiceConfigurationResponseMessageType" minOccurs="1" maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="ArrayOfServiceConfigurationType">
      <xs:choice minOccurs="1" maxOccurs="unbounded">
```

```
         <xs:element name="ConfigurationName" type="t:ServiceConfigurationType"/>
      </xs:choice>
   </xs:complexType>
   <xs:complexType name="GetServiceConfigurationResponseMessageType">
      <xs:complexContent>
         <xs:extension base="m:ResponseMessageType">
            <xs:sequence>
               <xs:element name="ResponseMessages"
type="m:ArrayOfServiceConfigurationResponseMessageType" minOccurs="0" maxOccurs="1"/>
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="GetServiceConfigurationType">
      <xs:complexContent>
         <xs:extension base="m:BaseRequestType">
            <xs:sequence>
               <xs:element minOccurs="0" maxOccurs="1" name="ActingAs"
type="t:EmailAddressType"/>
               <xs:element minOccurs="1" maxOccurs="1" name="RequestedConfiguration"
type="m:ArrayOfServiceConfigurationType"/>
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="ServiceConfigurationResponseMessageType">
      <xs:complexContent>
         <xs:extension base="m:ResponseMessageType">
            <xs:sequence>
               <xs:element name="MailTipsConfiguration" type="t:MailTipsServiceConfiguration"
minOccurs="0" maxOccurs="1"/>
               <xs:element name="UnifiedMessagingConfiguration"
type="t:UnifiedMessageServiceConfiguration" minOccurs="0" maxOccurs="1"/>
               <xs:element name="ProtectionRulesConfiguration"
type="t:ProtectionRulesServiceConfiguration" minOccurs="0" maxOccurs="1"/>
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:element name="GetServiceConfiguration" type="m:GetServiceConfigurationType"/>
   <xs:element name="GetServiceConfigurationResponse"
type="m:GetServiceConfigurationResponseMessageType"/>
</xs:schema>
```

6.3 Types Schema

This section contains the contents of the MS-OXWCONFIG-types.xsd file.

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified" version="Exchange2010" id="types">
   <xs:simpleType name="ProtectionRuleActionKindType">
      <xs:restriction base="xs:string">
         <xs:enumeration value="RightsProtectMessage"/>
```

```
      </xs:restriction>
   </xs:simpleType>
   <xs:simpleType name="ProtectionRuleAllInternalType">
      <xs:restriction base="xs:string">
         <xs:length value="0"/>
      </xs:restriction>
   </xs:simpleType>
   <xs:simpleType name="ProtectionRuleTrueType">
      <xs:restriction base="xs:string">
         <xs:length value="0"/>
      </xs:restriction>
   </xs:simpleType>
   <xs:simpleType name="ProtectionRuleValueType">
      <xs:restriction base="xs:string">
         <xs:minLength value="1"/>
      </xs:restriction>
   </xs:simpleType>
   <xs:simpleType name="ServiceConfigurationType">
      <xs:list>
         <xs:simpleType>
            <xs:restriction base="xs:string">
               <xs:enumeration value="MailTips"/>
               <xs:enumeration value="UnifiedMessagingConfiguration"/>
               <xs:enumeration value="ProtectionRules"/>
            </xs:restriction>
         </xs:simpleType>
      </xs:list>
   </xs:simpleType>
   <xs:complexType name="MailTipsServiceConfiguration">
      <xs:complexContent>
         <xs:extension base="t:ServiceConfiguration">
            <xs:sequence>
               <xs:element minOccurs="1" maxOccurs="1"
name="MaxRecipientsPerGetMailTipsRequest" type="xs:int"/>
               <xs:element minOccurs="1" maxOccurs="1" name="MaxMessageSize" type="xs:int"/>
               <xs:element minOccurs="1" maxOccurs="1" name="LargeAudienceThreshold"
type="xs:int"/>
               <xs:element minOccurs="1" maxOccurs="1" name="ShowExternalRecipientCount"
type="xs:boolean"/>
               <xs:element minOccurs="1" maxOccurs="1" name="InternalDomains"
type="t:SmtpDomainList"/>
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="UnifiedMessageServiceConfiguration">
      <xs:complexContent>
         <xs:extension base="t:ServiceConfiguration">
            <xs:sequence>
               <xs:element minOccurs="1" maxOccurs="1" name="UmEnabled" type="xs:boolean"/>
               <xs:element minOccurs="1" maxOccurs="1" name="PlayOnPhoneDialString"
type="xs:string"/>
               <xs:element minOccurs="1" maxOccurs="1" name="PlayOnPhoneEnabled"
type="xs:boolean"/>
            </xs:sequence>
         </xs:extension>
      </xs:complexContent>
   </xs:complexType>
   <xs:complexType name="ArrayOfProtectionRulesType">
```

```
      <xs:sequence>
         <xs:element name="Rule" type="t:ProtectionRuleType" minOccurs="0"
maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="ProtectionRuleActionType">
      <xs:sequence>
         <xs:element name="Argument" type="t:ProtectionRuleArgumentType" minOccurs="0"
maxOccurs="unbounded"/>
      </xs:sequence>
      <xs:attribute name="Name" use="required" type="t:ProtectionRuleActionKindType"/>
   </xs:complexType>
   <xs:complexType name="ProtectionRuleAndType">
      <xs:sequence>
         <xs:choice minOccurs="1" maxOccurs="unbounded">
            <xs:element name="AllInternal" type="t:ProtectionRuleAllInternalType"/>
            <xs:element name="And" type="t:ProtectionRuleAndType"/>
            <xs:element name="RecipientIs" type="t:ProtectionRuleRecipientIsType"/>
            <xs:element name="SenderDepartments"
type="t:ProtectionRuleSenderDepartmentsType"/>
            <xs:element name="True" type="t:ProtectionRuleTrueType"/>
         </xs:choice>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="ProtectionRuleArgumentType">
      <xs:attribute name="Value" use="required">
         <xs:simpleType>
            <xs:restriction base="xs:string">
               <xs:minLength value="1"/>
            </xs:restriction>
         </xs:simpleType>
      </xs:attribute>
   </xs:complexType>
   <xs:complexType name="ProtectionRuleConditionType">
      <xs:choice minOccurs="1" maxOccurs="1">
         <xs:element name="AllInternal" type="t:ProtectionRuleAllInternalType"/>
         <xs:element name="And" type="t:ProtectionRuleAndType"/>
         <xs:element name="RecipientIs" type="t:ProtectionRuleRecipientIsType"/>
         <xs:element name="SenderDepartments" type="t:ProtectionRuleSenderDepartmentsType"/>
         <xs:element name="True" type="t:ProtectionRuleTrueType"/>
      </xs:choice>
   </xs:complexType>
   <xs:complexType name="ProtectionRuleRecipientIsType">
      <xs:sequence>
         <xs:element name="Value" type="t:ProtectionRuleValueType" minOccurs="1"
maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="ProtectionRuleSenderDepartmentsType">
      <xs:sequence>
         <xs:element name="Value" type="t:ProtectionRuleValueType" minOccurs="1"
maxOccurs="unbounded"/>
      </xs:sequence>
   </xs:complexType>
   <xs:complexType name="ProtectionRulesServiceConfiguration">
      <xs:complexContent>
         <xs:extension base="t:ServiceConfiguration">
            <xs:sequence>
```

```
            <xs:element name="Rules" type="t:ArrayOfProtectionRulesType" minOccurs="1"
maxOccurs="1"/>
            <xs:element name="InternalDomains" type="t:SmtpDomainList" minOccurs="1"
maxOccurs="1"/>
         </xs:sequence>
         <xs:attribute name="RefreshInterval" use="required">
            <xs:simpleType>
               <xs:restriction base="xs:int">
                  <xs:minInclusive value="1"/>
               </xs:restriction>
            </xs:simpleType>
         </xs:attribute>
      </xs:extension>
   </xs:complexContent>
</xs:complexType>
<xs:complexType name="ProtectionRuleType">
   <xs:sequence>
      <xs:element name="Condition" type="t:ProtectionRuleConditionType" minOccurs="1"
maxOccurs="1"/>
      <xs:element name="Action" type="t:ProtectionRuleActionType" minOccurs="1"
maxOccurs="1"/>
   </xs:sequence>
   <xs:attribute name="Name" use="required">
      <xs:simpleType>
         <xs:restriction base="xs:string">
            <xs:minLength value="1"/>
         </xs:restriction>
      </xs:simpleType>
   </xs:attribute>
   <xs:attribute name="UserOverridable" type="xs:boolean" use="required"/>
   <xs:attribute name="Priority" use="required">
      <xs:simpleType>
         <xs:restriction base="xs:int">
            <xs:minInclusive value="1"/>
         </xs:restriction>
      </xs:simpleType>
   </xs:attribute>
</xs:complexType>
<xs:complexType name="ServiceConfiguration"/>
<xs:complexType name="SmtpDomain">
   <xs:attribute name="Name" type="xs:string" use="required"/>
   <xs:attribute name="IncludeSubdomains" type="xs:boolean" use="optional"/>
</xs:complexType>
<xs:complexType name="SmtpDomainList">
   <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="Domain" type="t:SmtpDomain"/>
   </xs:sequence>
</xs:complexType>
</xs:schema>
```

7 Appendix B: Product Behavior

The information in this specification is applicable to the following product versions. References to product versions include released service packs.

- Microsoft Exchange Server 2010
- Microsoft Outlook 2010

Exceptions, if any, are noted below. If a service pack number appears with the product version, behavior changed in that service pack. The new behavior also applies to subsequent service packs of the product unless otherwise specified.

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

8 Change Tracking

This section identifies changes made to [MS-OXWCONFIG] protocol documentation between November 2009 and February 2010 releases. Changes are classed as major, minor, or editorial.

Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements or functionality.
- An extensive rewrite, addition, or deletion of major portions of content.
- A protocol is deprecated.
- The removal of a document from the documentation set.
- Changes made for template compliance.

Minor changes do not affect protocol interoperability or implementation. Examples are updates to fix technical accuracy or ambiguity at the sentence, paragraph, or table level.

Editorial changes apply to grammatical, formatting, and style issues.

No changes means that the document is identical to its last release.

Major and minor changes can be described further using the following revision types:

- New content added.
- Content update.
- Content removed.
- New product behavior note added.
- Product behavior note updated.
- Product behavior note removed.
- New protocol syntax added.
- Protocol syntax updated.
- Protocol syntax removed.
- New content added due to protocol revision.
- Content updated due to protocol revision.
- Content removed due to protocol revision.
- New protocol syntax added due to protocol revision.
- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.
- New content added for template compliance.
- Content updated for template compliance.

- Content removed for template compliance.
- Obsolete document removed.

Editorial changes always have the revision type "Editorially updated."

Some important terms used in revision type descriptions are defined as follows:

Protocol syntax refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.

Protocol revision refers to changes made to a protocol that affect the bits that are sent over the wire.

Changes are listed in the following table. If you need further information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Revision Type
1 Introduction	49101 Updated the introduction to provide information about the type of configuration information the protocol retrieves.	N	Content update.
2.2.1 Namespaces	53774 Added table header shading for the third column.	N	Content update.
3.1.4.1.1.5 t:ServiceConfigurationType	54020 Added the MailTips and UnifiedMessagingConfiguration enumerations.	N	New content added.
3.1.4.1.2.6 t:MailTipsServiceConfiguration	50294 Changed the term "sender hints" to "mail tips".	N	Content update.
3.1.4.1.2.6 t:MailTipsServiceConfiguration	54020 Added this section to this document from MS-OXWMT.	Y	New content added.
3.1.4.1.2.16 m:ServiceConfigurationResponseMessageType	54020 Added mail tips and unified messaging elements.	Y	New content added.
3.1.4.1.2.19 t:UnifiedMessageServiceConfiguration	54020 Added topic to the document.	N	New content added.
6 Appendix A: Full WSDL	54020 Removed WSDL file and added table that describes the schema and WSDL files used for this protocol.	Y	Content update.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Revision Type
6.1 WSDL	54020 Added updated WSDL.	Y	New content added.
6.2 Messages Schema	54020 Added updated Messages schema.	Y	New content added.
6.3 Types Schema	54020 Added updated Types schema.	Y	New content added.
7 Appendix B: Product Behavior	49289 Added Outlook 2010 to the list of applicable products.	N	Content update.
	54020 Removed the following sections from this document and schema files: ResponseCodeType, BaseRequestType, ResponseMessageType, NonEmptyStringType, BaseEmailAddressType, BaseItemIdType, ConnectingSIDType, EmailAddressType, ExchangeImpersonationType, MailboxCultureType, ExchangeImpersonation, MailboxCulture, ServerVersionInfo, and RequestServerVersion.	N	Content removed.

9 Index

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