

[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.
05/05/2010	3.0.0	Major	Updated and revised the technical content.
08/04/2010	3.1	Minor	Clarified the meaning of the technical content.

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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
mail tip
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. The policies are sets of conditions and associated actions that apply within the organization.

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-OXWSADISC] Microsoft Corporation, "[Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol Specification](#)", July 2009.

[MS-OXWSCDATA] Microsoft Corporation, "[Common Web Service Data Types](#)", July 2009.

[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", BCP 47, RFC 3066, January 2001, <http://www.ietf.org/rfc/rfc3066.txt>

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", W3C Note, May 2000, <http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>

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

[XMLNS] Bray, T., Hollander, D., Layman, A., Eds., et al., "Namespaces in XML 1.0 (Third Edition)", December 2009, <http://www.w3.org/TR/REC-xml-names/>

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

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

1.2.2 Informative References

[MS-OXGLOS] Microsoft Corporation, "[Exchange Server Protocols Master Glossary](#)", April 2008.

1.3 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.

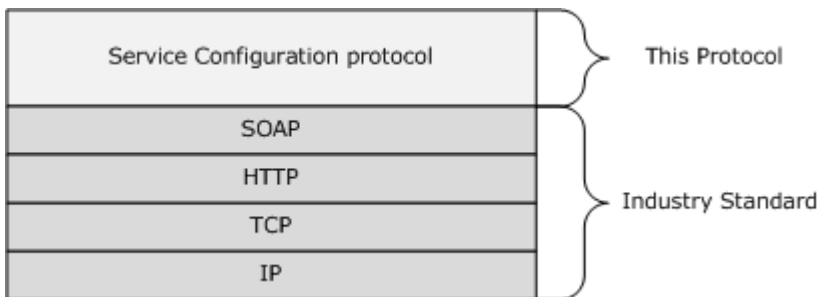


Figure 1: SOAP over HTTP

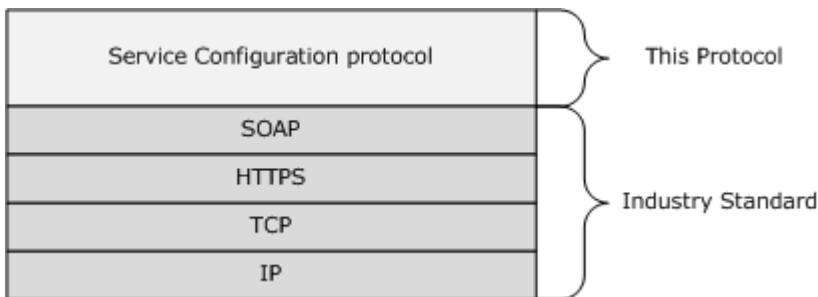


Figure 2: SOAP over HTTPS

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>
```

Operation	Description
GetServiceConfiguration	Gets organization policy configuration information for a mailbox.

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 the operation that is listed in the following table.

Operation	Description
GetServiceConfiguration (section 3.1.4.1)	Gets 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">
  <wsdl:input message="tns:GetServiceConfigurationSoapIn" />
  <wsdl:output message="tns:GetServiceConfigurationSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
tns:GetServiceConfigurationSoapIn	Specifies the SOAP message that gets the configuration information for a mailbox.

Response

Message Format	Description
tns:GetServiceConfigurationSoapOut	Specifies the SOAP message that is returned by the server in response.

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 Simple Type

The **ProtectionRuleActionKindType** simple type specifies the actions that are supported by the protection rules service.

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

Enumeration

The following value is defined by the **ProtectionRuleActionKindType** simple type:

Value	Description
RightsProtectMessage	The specific permission template to apply to the message.

Only the **RightsProtectMessage** action is supported. The value **MUST** be **RightsProtectMessage**. The protection rules are used to apply a specific set of permissions.

3.1.4.1.1.2 t:ProtectionRuleAllInternalType Simple Type

The **ProtectionRuleAllInternalType** simple 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 Simple Type

The **ProtectionRuleTrueType** simple type specifies the True predicate. The semantics of True is that the condition 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 Simple Type

The **ProtectionRuleValueType** simple 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 Simple Type

The **ServiceConfigurationType** simple type 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>

```

Enumeration

The following values are defined by the **ServiceConfigurationType** simple type:

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 Complex Type

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:sequence>
</xs:complexType>

```

Child Elements

Element	Type	Description
Rule	t: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:ArrayOfServiceConfigurationResponseType Complex Type

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

```
<xs:complexType name="ArrayOfServiceConfigurationResponseType">
  <xs:sequence>
    <xs:element name="ServiceConfigurationResponseType"
      type="m:ServiceConfigurationResponseType"
      maxOccurs="unbounded"
      minOccurs="0"
    />
  </xs:sequence>
</xs:complexType>
```

Child Elements

Element	Type	Description
ServiceConfigurationResponseType	m:ServiceConfigurationResponseType	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 Complex Type

The **ArrayOfServiceConfigurationType** complex type specifies the requested service configurations for a **GetServiceConfigurationSoapIn** message [3.1.4.1.7.1](#).

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

Child Elements

Element	Type	Description
ConfigurationName	t:ServiceConfigurationType	Specifies the service configuration that is returned in the response. This simple type MUST occur at

Element	Type	Description
		least once.

3.1.4.1.2.4 m:GetServiceConfigurationResponseMessageType Complex Type

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>
```

Child Elements

Element	Type	Description
ResponseMessages	m:ArrayOfServiceConfigurationResponseMessageType	Contains an array of service configuration response messages. This element MUST occur if there are configuration settings.

3.1.4.1.2.5 m:GetServiceConfigurationType Complex Type

The **GetServiceConfigurationType** complex 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 [m:BaseRequestType](#) complex type.

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

```

    />
    <xs:element name="RequestedConfiguration"
      type="m:ArrayOfServiceConfigurationType"
      maxOccurs="1"
      minOccurs="1"
    />
  </xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

Child Elements

Element	Type	Description
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 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 Complex Type

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"
          maxOccurs="1"
          minOccurs="1"
        />
        <xs:element name="MaxRecipientsPerGetMailTipsRequest"
          type="xs:int"
          maxOccurs="1"
          minOccurs="1"
        />
        <xs:element name="MaxMessageSize"
          type="xs:int"
          maxOccurs="1"
          minOccurs="1"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```



```

<xs:element name="LargeAudienceThreshold"
  type="xs:int"
  maxOccurs="1"
  minOccurs="1"
/>
<xs:element name="ShowExternalRecipientCount"
  type="xs:boolean"
  maxOccurs="1"
  minOccurs="1"
/>
<xs:element name="InternalDomains"
  type="t:SmtpDomainList"
  maxOccurs="1"
  minOccurs="1"
/>
</xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

Child Elements

Element	Type	Description
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. 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 have to 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

Element	Type	Description
		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 Complex Type

The **ProtectionRuleActionType** complex 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"
      maxOccurs="unbounded"
      minOccurs="0"
    />
  </xs:sequence>
  <xs:attribute name="Name"
    type="t:ProtectionRuleActionKindType"
    use="required"
  />
</xs:complexType>
```

Child Elements

Element	Type	Description
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.

Attributes

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

3.1.4.1.2.8 t:ProtectionRuleAndType Complex Type

The **ProtectionRuleAndType** complex 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>

```

Child Elements

Element	Type	Description
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	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	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 Complex Type

The **ProtectionRuleArgumentType** complex 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>

```

Attributes

Name	Type	Description
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 Complex Type

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

```

<xs:complexType name="ProtectionRuleConditionType">
  <xs:choice
    maxOccurs="1"
    minOccurs="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:ProtectionRuleAllInternalType"
    />
  </xs:choice>
</xs:complexType>

```

Child Elements

Element	Type	Description
AllInternal	t:ProtectionRuleAllInternalType	The <AllInternal> element 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 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:ProtectionRuleAllInternalType	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 Complex Type

The **ProtectionRuleRecipientIsType** complex 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>

```

Child Elements

Element	Type	Description
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 Complex Type

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>

```

Child Elements

Element	Type	Description
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 Complex Type

The **ProtectionRulesServiceConfiguration** complex 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** complex type extends the [t:ServiceConfiguration](#) type.

```

<xs:complexType name="ProtectionRulesServiceConfiguration">
  <xs:complexContent>
    <xs:extension
      base="t:ServiceConfiguration"
    />
  </xs:complexContent>
</xs:complexType>

```

```

>
  <xs:sequence>
    <xs:element name="Rules"
      type="t:ArrayOfProtectionRulesType"
      maxOccurs="1"
      minOccurs="1"
    />
    <xs:element name="InternalDomains"
      type="t:SmtpDomainList"
      maxOccurs="1"
      minOccurs="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>

```

Child Elements

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

Attributes

Name	Type	Description
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 complex 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.
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

Attribute	Type	Definition
		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 ServiceConfigurationResponseMessageType Complex Type

The **ServiceConfigurationResponseMessageType** complex type specifies service configuration settings. The **ServiceConfigurationResponseMessageType** complex type extends the **ResponseMessageType** complex type ([\[MS-OXWSCDATA\]](#) section 2.2.3.52).

```
<xs:complexType>
  <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"
          maxOccurs="1"
          minOccurs="0"
        />
        <xs:element name="ProtectionRulesConfiguration"
          type="t:ProtectionRulesServiceConfiguration"
          maxOccurs="1"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Child Elements

Element	Type	Description
MailTipsConfiguration	t:MailTipsServiceConfiguration	Contains service configuration information for the mail tips service. This element MUST occur for mail tips service configuration.
UnifiedMessagingConfiguration	t:UnifiedMessageServiceConfiguration	Contains service configuration

Element	Type	Description
		information for the unified messaging service. This element MUST occur for unified messaging service configuration.
ProtectionRulesConfiguration	t:ProtectionRulesServiceConfiguration	Contains service configuration information for the protection rules service. This element MUST occur for protection rules service 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 SMTP domain. This element can occur 0 or more times.

3.1.4.1.2.19 UnifiedMessageServiceConfiguration Complex Type

The **UnifiedMessageServiceConfiguration** complex type specifies the configuration for Unified Messaging service. The **UnifiedMessageServiceConfiguration** complex type extends the **ServiceConfiguration** complex type (section [3.1.4.1.2.15](#)).

```
<xs:complexType name="UnifiedMessageServiceConfiguration">
  <xs:complexContent>
```

```

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

```

Child Elements

Element	Type	Description
UmEnabled	xs:boolean	Specifies whether Unified Messaging is enabled. This element MUST be included if the UnifiedMessageServiceConfiguration complex type is used.
PlayOnPhoneDialString	xs:string	Specifies the telephone number for play-on-phone. This element MUST be included if the UnifiedMessageServiceConfiguration complex type is used.
PlayOnPhoneEnabled	xs:boolean	Specifies whether play-on-phone is enabled. This element MUST be included if the UnifiedMessageServiceConfiguration complex 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>
  </wsdl:binding>
</wsdl:definitions>
```

```

</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 6.2.
MS-OXWCONFIG-types.xsd	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: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:SmtppDomainList"/>
      </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:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>

```

```

        <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 Microsoft products:

- 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. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification 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 that were made to the [MS-OXWCONFIG] protocol document between the May 2010 and August 2010 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

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

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **Editorial** means that the language and formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

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

- New content added.
- Content updated.
- 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 are always classified with the change type "Editorially updated."

Some important terms used in the change 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.

The changes made to this document are listed in the following table. For more information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
1.2.1 Normative References	55751 Moved [MS-OXGLOS] from Normative References section to Informative References section.	N	Content update.
1.2.1 Normative References	Added reference information for {MS-OXWSCDATA} and [MS-OXWSADISC].	N	Content update.

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