

[MS-OXWMT]: Mailtips Web Service Extensions

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation for protocols, file formats, languages, standards as well as overviews of the interaction among each of these technologies.
- **Copyrights.** This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you may make copies of it in order to develop implementations of the technologies described in the Open Specifications and may distribute portions of it in your implementations using these technologies or your documentation as necessary to properly document the implementation. You may also distribute in your implementation, with or without modification, any schema, IDL's, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications.
- **No Trade Secrets.** Microsoft does not claim any trade secret rights in this documentation.
- **Patents.** Microsoft has patents that may cover your implementations of the technologies described in the Open Specifications. Neither this notice nor Microsoft's delivery of the documentation grants any licenses under those or any other Microsoft patents. However, a given Open Specification may be covered by Microsoft's Open Specification Promise (available here: <http://www.microsoft.com/interop/osp>) or the Community Promise (available here: <http://www.microsoft.com/interop/cp/default.mspx>). If you would prefer a written license, or if the technologies described in the Open Specifications are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting iplq@microsoft.com.
- **Trademarks.** The names of companies and products contained in this documentation may be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights.

Reservation of Rights. All other rights are reserved, and this notice does not grant any rights other than specifically described above, whether by implication, estoppel, or otherwise.

Tools. The Open Specifications do not require the use of Microsoft programming tools or programming environments in order for you to develop an implementation. If you have access to Microsoft programming tools and environments you are free to take advantage of them. Certain Open Specifications are intended for use in conjunction with publicly available standard specifications and network programming art, and assumes that the reader either is familiar with the aforementioned material or has immediate access to it.

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.

Table of Contents

1 Introduction	6
1.1 Glossary.....	6
1.2 References.....	6
1.2.1 Normative References	6
1.2.2 Informative References	7
1.3 Protocol Overview	7
1.4 Relationship to Other Protocols.....	7
1.5 Prerequisites/Preconditions.....	8
1.6 Applicability Statement.....	8
1.7 Versioning and Capability Negotiation.....	8
1.8 Vendor-Extensible Fields	8
1.9 Standards Assignments	9
2 Messages	10
2.1 Transport.....	10
2.2 Common Message Syntax.....	10
2.2.1 Namespaces.....	10
2.2.2 Simple Types	10
2.2.2.1 t:NonEmptyStringType	10
2.2.2.2 t:ExchangeVersionType.....	11
2.2.2.3 m:ResponseCodeType	11
2.2.3 Complex Types.....	13
2.2.3.1 m:BaseRequestType.....	13
2.2.3.2 t:EmailAddressType	13
2.2.3.3 t:MailboxCultureType	14
2.2.3.4 t:RequestServerVersion.....	14
2.2.3.5 m:ResponseMessageType.....	14
2.2.3.6 t:ServerVersionInfo.....	15
2.2.4 Elements.....	16
2.2.4.1 t:MailboxCulture.....	16
2.2.5 Attributes.....	16
2.2.6 Groups.....	16
2.2.7 Attribute Groups	16
2.2.8 Messages	16
3 Protocol Details.....	17
3.1 ExchangeServicePortType Server Details	17
3.1.1 Abstract Data Model.....	17
3.1.2 Timers	17
3.1.3 Initialization	17
3.1.4 Message Processing Events and Sequencing Rules	17
3.1.4.1 GetMailTips	17
3.1.4.1.1 Simple Types	18
3.1.4.1.1.1 t:MailTipTypes.....	18
3.1.4.1.2 Complex Types.....	19
3.1.4.1.2.1 t:ArrayOfRecipientsType.....	19
3.1.4.1.2.2 m:ArrayOfMailTipsResponseMessageType	19
3.1.4.1.2.3 t:BaseEmailAddressType	20
3.1.4.1.2.4 t:Duration.....	20
3.1.4.1.2.5 m:GetMailTipsResponseMessageType	20

3.1.4.1.2.6	m:GetMailTipsType.....	20
3.1.4.1.2.7	t:MailTips	21
3.1.4.1.2.8	m:MailTipsResponseMessageType.....	22
3.1.4.1.2.9	t:OutOfOfficeMailTip	22
3.1.4.1.2.10	t:ReplyBody	23
3.1.4.1.3	Elements.....	23
3.1.4.1.3.1	GetMailTips	23
3.1.4.1.3.2	GetMailTipsResponse	23
3.1.4.1.4	Attributes.....	23
3.1.4.1.5	Groups.....	24
3.1.4.1.6	Attribute Groups	24
3.1.4.1.7	Messages	24
3.1.4.1.7.1	GetMailTipsSoapIn	24
3.1.4.1.7.2	GetMailTipsSoapOut.....	24
3.1.4.2	GetServiceConfiguration.....	24
3.1.4.2.1	Simple Types	25
3.1.4.2.1.1	t:ServiceConfigurationType	25
3.1.4.2.2	Complex Types.....	25
3.1.4.2.2.1	m:ArrayOfServiceConfigurationResponseMessageType.....	25
3.1.4.2.2.2	m:ArrayOfServiceConfigurationType	26
3.1.4.2.2.3	t:ConnectingSIDType	26
3.1.4.2.2.4	t:ExchangeImpersonationType	27
3.1.4.2.2.5	m:GetServiceConfigurationResponseMessageType	27
3.1.4.2.2.6	m:GetServiceConfigurationType	28
3.1.4.2.2.7	t:MailTipsServiceConfiguration.....	28
3.1.4.2.2.8	m:ServiceConfigurationResponseMessageType	29
3.1.4.2.2.9	t:SmtpDomain	30
3.1.4.2.2.10	t:SmtpDomainList	30
3.1.4.2.3	Elements.....	30
3.1.4.2.3.1	t:ExchangeImpersonation.....	31
3.1.4.2.3.2	m:GetServiceConfiguration.....	31
3.1.4.2.3.3	m:GetServiceConfigurationResponse	31
3.1.4.2.4	Attributes.....	31
3.1.4.2.5	Groups.....	31
3.1.4.2.6	Attribute Groups	31
3.1.4.2.7	Messages	31
3.1.4.2.7.1	GetServiceConfigurationSoapIn	31
3.1.4.2.7.2	GetServiceConfigurationSoapOut.....	32
3.1.5	Timer Events.....	32
3.1.6	Other Local Events	32
3.2	Client Details.....	32
3.2.1	Abstract Data Model.....	32
3.2.2	Timers	32
3.2.3	Initialization	32
3.2.4	Message Processing Events and Sequencing Rules	32
3.2.5	Timer Events.....	32
3.2.6	Other Local Events	32
4	Protocol Examples	33
4.1	GetMailTips Request.....	33
4.2	GetMailTips Response.....	33
5	Security.....	35

5.1 Security Considerations for Implementers.....	35
5.2 Index of Security Parameters	35
6 Appendix A: Full WSDL	36
7 Appendix B: Product Behavior	44
8 Change Tracking	45
9 Index.....	48

1 Introduction

This document specifies the Mail Tips Extensions to Web Service protocol, which is responsible for request-response **messages** for retrieving **mail tips** for a **mailbox**. Clients use the SOAP protocol [[SOAP1.1](#)] to contact the mail tips service.

1.1 Glossary

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

Active Directory domain
Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)
mail tip
mailbox
Out of Office (OOO)
property
recipient
Simple Mail Transfer Protocol (SMTP)
SOAP body
SOAP fault
SOAP header
Web Services Description Language (WSDL)
WSDL message
XML
XML schema

The following terms are specific to this document:

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

1.2 References

1.2.1 Normative References

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

[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>.

[RFC2396] Berners-Lee, T., Fielding, R., and Masinter, L., "Uniform Resource Identifiers (URI): Generic Syntax", RFC 2396, August 1998, <http://www.ietf.org/rfc/rfc2396.txt>.

[RFC2616] Fielding, R., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, <http://www.ietf.org/rfc/rfc2616.txt>.

[RFC2818] Rescorla, E., "HTTP over TLS", RFC 2818, May 2000, <http://www.ietf.org/rfc/rfc2818.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/>.

[SOAP1.2/1] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, <http://www.w3.org/TR/2003/REC-soap12-part1-20030624>.

[SOAP1.2/2] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 2: Adjuncts", W3C Recommendation, June 2003, <http://www.w3.org/TR/2003/REC-soap12-part2-20030624>.

[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>.

[XML10] World Wide Web Consortium, "Extensible Markup Language (XML) 1.0 (Third Edition)", February 2004, <http://www.w3.org/TR/2004/REC-xml-20040204/>.

[XMLINFOSET] World Wide Web Consortium, "XML Information Set (Second Edition)", February 2004, <http://www.w3.org/TR/2004/REC-xml-infoset-20040204>.

[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

Mail tips are bits of information that are presented to the author of a message while they are composing, to help them understand what will happen when they send the message. E-mail clients request information from the server regarding **recipient** mailboxes and present this information to the author.

1.4 Relationship to Other Protocols

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

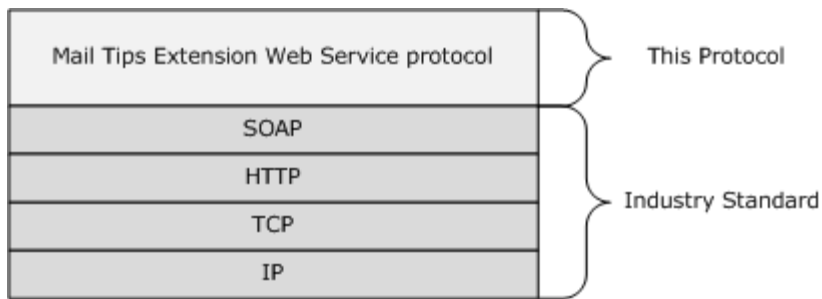


Figure 1: SOAP over HTTP

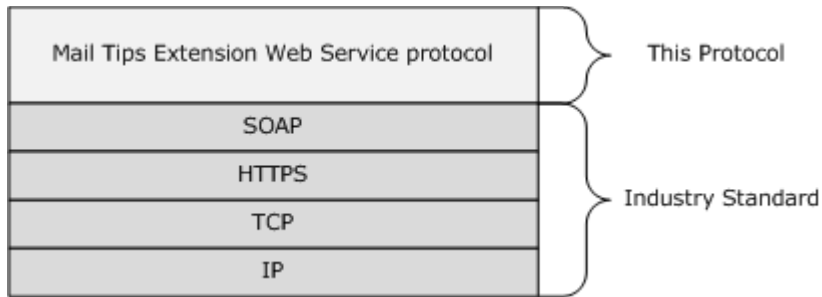


Figure 2: SOAP over HTTPS

1.5 Prerequisites/Preconditions

The URL of the Mailtips Web Service extensions can be retrieved by using the Autodiscover Publishing and Lookup SOAP-Based Web Service protocol [\[MS-OXWSADISC\]](#).

1.6 Applicability Statement

The Mailtips Web Service extensions can be used when access to helpful mailbox 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 specifies 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-OXWMT]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1]
targetNamespace	http://schemas.microsoft.com/exchange/services/2006/messages	[MS-OXWMT]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
t	http://schemas.microsoft.com/exchange/services/2006/types	[MS-OXWMT]
m	http://schemas.microsoft.com/exchange/services/2006/messages	[MS-OXWMT]

2.2.2 Simple Types

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

Simple type	Description
t:NonEmptyStringType	Specifies a string with a minimum length of one character.
t:ExchangeVersionType	Specifies the server version.
m:ResponseCodeType	Specifies the response codes that are returned in a response.

2.2.2.1 t:NonEmptyStringType

The **NonEmptyStringType** specifies a string with a minimum length of one character.

```
<xs:simpleType name="NonEmptyStringType">  
  <xs:restriction base="xs:string">
```

```

    <xs:minLength value="1" />
  </xs:restriction>
</xs:simpleType>

```

2.2.2.2 t:ExchangeVersionType

The **ExchangeVersionType** specifies the server version.

```

<xs:simpleType name="ExchangeVersionType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Exchange2010" />
  </xs:restriction>
</xs:simpleType>

```

Value	Description
Exchange2010	Represents a request against the Exchange 2010 schema version.

2.2.2.3 m:ResponseCodeType

The **ResponseCodeType** specifies the response codes that are returned in a response.

```

<xs:simpleType name="ResponseCodeType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NoError" />
    <xs:enumeration value="ErrorAccessDenied" />
    <xs:enumeration value="ErrorAccountDisabled" />
    <xs:enumeration value="ErrorADOperation" />
    <xs:enumeration value="ErrorADSessionFilter" />
    <xs:enumeration value="ErrorADUnavailable" />
    <xs:enumeration value="ErrorImpersonateUserDenied" />
    <xs:enumeration value="ErrorImpersonationDenied" />
    <xs:enumeration value="ErrorImpersonationFailed" />
    <xs:enumeration value="ErrorIncorrectSchemaVersion" />
    <xs:enumeration value="ErrorInsufficientResources" />
    <xs:enumeration value="ErrorInternalServerError" />
    <xs:enumeration value="ErrorInternalServerErrorTransientError" />
    <xs:enumeration value="ErrorInvalidArgument" />
    <xs:enumeration value="ErrorInvalidOperation" />
    <xs:enumeration value="ErrorInvalidRequest" />
    <xs:enumeration value="ErrorInvalidRoutingType" />
    <xs:enumeration value="ErrorInvalidServerVersion" />
    <xs:enumeration value="ErrorMailboxStoreUnavailable" />
    <xs:enumeration value="ErrorNotEnoughMemory" />
    <xs:enumeration value="ErrorSchemaValidation" />
    <xs:enumeration value="ErrorServerBusy" />
    <xs:enumeration value="ErrorUnsupportedCulture" />
  </xs:restriction>
</xs:simpleType>

```

Value	Description
NoError	Specifies that no errors occurred.
ErrorAccessDenied	Specifies that the calling account does not have the rights to perform

Value	Description
	the requested action.
ErrorAccountDisabled	Specifies that the account in question has been disabled.
ErrorADOperation	Specifies that the GetServiceConfiguration operation failed because of communication problems with Active Directory .
ErrorADUnavailable	Specifies that Active Directory is unavailable.
ErrorImpersonateUserDenied	Specifies that the calling account does not have impersonation rights on either the user or contact that it is trying to impersonate or the mailbox database that contains the user mailbox. This response code is returned within a SOAP fault .
ErrorImpersonationDenied	Specifies that the calling account does not have impersonation rights on the server that it is calling. This response code is returned within a SOAP fault.
ErrorImpersonationFailed	Specifies that there was an unexpected error when an attempt was made to perform impersonation. This response code specifies either that the service account that is running the GetServiceConfiguration application pool is configured incorrectly, that GetServiceConfiguration service cannot talk to the directory, or that a trust between forests is not correctly configured.
ErrorIncorrectSchemaVersion	Specifies that the request was valid for the current server version but was invalid for the request server version that was specified.
ErrorInsufficientResources	Specifies that the mailbox server is overloaded. Try your request again later.
ErrorInternalServerError	Specifies that the server encountered an error that it could not recover from, and no more specific response code is associated with the error that occurred.
ErrorInternalServerErrorTransientError	Specifies that an internal server error occurred. Try your request again later.
ErrorInvalidArgument	Specifies an error related to the ActingAs element. This error can occur if the ActingAs element is missing, does not include a routing type, does not include an e-mail address, contains an invalid e-mail address, does not resolve to a user in Active Directory, or resolves to multiple users in Active Directory.
ErrorInvalidOperation	Specifies a general error that is used when the requested operation is invalid.
ErrorInvalidRequest	Specifies that the SOAP request has a SOAP action header , but nothing in the SOAP body .
ErrorInvalidRoutingType	Specifies that the RoutingType property that was passed for an EmailAddressType is not a valid routing type.
ErrorInvalidServerVersion	Specifies that an invalid request server version was specified in the request.
ErrorMailboxStoreUnavailable	Specifies that the mailbox database is offline, corrupt, shutting down, or exhibiting other conditions that make the mailbox unavailable.

Value	Description
ErrorNotEnoughMemory	Specifies that the operation could not be completed because of insufficient memory.
ErrorSchemaValidation	Specifies when the incoming request fails schema validation. This response code is always returned within a SOAP fault.
ErrorServerBusy	Specifies when the server is busy.
ErrorUnsupportedCulture	Specifies that you tried to set the Culture property to an unsupported culture.

2.2.3 Complex Types

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

Complex type	Description
m:BaseRequestType	The base request type.
t:EmailAddressType	Specifies the identity of the sender or recipient actor of the request.
t:MailboxCultureType	Specifies the mailbox language.
t:RequestServerVersion	Specifies the server version to target.
m:ResponseMessageType	Specifies the base type for the GetMailTipsResponseMessageType and GetMailTipsConfigurationResponseMessageType types.
t:ServerVersionInfo	Specifies the server version.

2.2.3.1 m:BaseRequestType

The **BaseRequestType** type is the base type for the **GetMailTipsType** type.

```
<xs:complexType name="BaseRequestType" abstract="true"/>
```

2.2.3.2 t:EmailAddressType

The **EmailAddressType** type specifies the identity of the sender or recipient actor of the request. The **EmailAddressType** type extends the **BaseEmailAddressType**.

```
<xs:complexType name="EmailAddressType">
  <xs:complexContent>
    <xs:extension base="t:BaseEmailAddressType">
      <xs:sequence>
        <xs:element name="EmailAddress" type="t:NonEmptyStringType" minOccurs="0"/>
        <xs:element name="RoutingType" type="t:NonEmptyStringType" minOccurs="0"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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

Element	Type	Definition
EmailAddress	NonEmptyStringType	Specifies the SMTP address of the requested user's configuration information.
RoutingType	NonEmptyStringType	Specifies the routing type for the e-mail address.

2.2.3.3 t:MailboxCultureType

The **MailboxCultureType** type specifies the mailbox language. Values are defined in [\[RFC3066\]](#). This is used in the SOAP header. This type extends the **xs:language** type specified in [\[XMLSCHEMA2\]](#).

```
<xs:complexType name="MailboxCultureType">
  <xs:simpleContent>
    <xs:extension base="xs:language">
      <xs:anyAttribute namespace="http://schemas.xmlsoap.org/soap/envelope/" />
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

2.2.3.4 t:RequestServerVersion

The **RequestServerVersion** element specifies the server version to target.

```
<xs:element name="RequestServerVersion">
  <xs:complexType>
    <xs:attribute name="Version" type="t:ExchangeVersionType" fixed="Exchange2010"
      use="required"/>
    <xs:anyAttribute namespace="http://schemas.xmlsoap.org/soap/envelope/" />
  </xs:complexType>
</xs:element>
```

Attribute	Type	Definition
Version	t:ExchangeVersionType	Specifies the server version to target. This attribute MUST be present in all GetMailTipsConfigurationSoapIn messages.

2.2.3.5 m:ResponseMessageType

The **ResponseMessageType** type specifies the base type for the **GetMailTipsResponseMessageType** and **GetMailTipsConfigurationResponseMessageType** types.

```
<xs:complexType name="ResponseMessageType">
  <xs:sequence minOccurs="0">
    <xs:element name="MessageText" type="xs:string" minOccurs="0"/>
    <xs:element name="ResponseCode" type="m:ResponseCodeType" minOccurs="0"/>
    <xs:element name="DescriptiveLinkKey" type="xs:int" minOccurs="0"/>
    <xs:element name="MessageXml" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```

```

<xs:complexType>
  <xs:sequence>
    <xs:any processContents="lax" minOccurs="0" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

</xs:element>
</xs:sequence>
<xs:attribute name="ResponseClass" type="t:ResponseClassType" use="required" />
</xs:complexType>

```

Element	Type	Definition
MessageText	xs:string	Specifies the status of the response. The following values are valid for this attribute: <ul style="list-style-type: none"> ▪ Success ▪ Warning ▪ Error
ResponseCode	m:ResponseCodeType	Specifies an error code that identifies the specific error that the request encountered. Can be present.
DescriptiveLinkKey	xs:int	Currently unused, and is reserved for future use. It contains a value of 0 (zero).
MessageXml	Complex type defined above.	Provides additional error response information. Can be present.

2.2.3.6 t:ServerVersionInfo

The <ServerVersionInfo> element specifies the server version.

```

<xs:element name="ServerVersionInfo">
  <xs:complexType>
    <xs:attribute name="MajorVersion" type="xs:int" use="optional" />
    <xs:attribute name="MinorVersion" type="xs:int" use="optional" />
    <xs:attribute name="MajorBuildNumber" type="xs:int" use="optional" />
    <xs:attribute name="MinorBuildNumber" type="xs:int" use="optional" />
    <xs:attribute name="Version" type="xs:string" use="optional" />
  </xs:complexType>
</xs:element>

```

Attribute	Type	Definition
MajorVersion	xs:int	Specifies the major server version. This attribute MUST be present in all responses and MUST be a non-negative integer value.
MinorVersion	xs:int	Specifies the minor server version. This attribute MUST be present in all responses and MUST be a non-negative integer value.
MajorBuildNumber	xs:int	Specifies the major server build number. This attribute MUST be present in all responses and MUST be a non-negative integer value.

Attribute	Type	Definition
MinorBuildNumber	xs:int	Specifies the minor server build number. This attribute MUST be present in all responses and MUST be a non-negative integer value.
Version	xs:string	Specifies the server version. This attribute MUST be present.

2.2.4 Elements

The following table summarizes the set of common XML schema element definitions that are defined by this specification. XML schema element definitions that are specific to a particular operation are defined with the operation.

Element	Description
t:MailboxCulture	Specifies the mailbox language.

2.2.4.1 t:MailboxCulture

The **MailboxCulture** element specifies the mailbox language.

```
<xs:element name="MailboxCulture" type="t:MailboxCultureType"/>
```

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 Mail Tips Extensions to Web Service protocol defines a single port type.

```
<wsdl:portType name="ExchangeServicePortType">
  <wsdl:operation name="GetMailTips">
    <wsdl:input message="tns:GetMailTipsSoapIn" />
    <wsdl:output message="tns:GetMailTipsSoapOut" />
  </wsdl:operation>

  <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 Mail Tips Extensions to Web Service 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 two operations listed in the following table.

Operation	Description
GetMailTips	Provides mail tips information for a mailbox.
GetServiceConfiguration	Provides policy configuration information for a mailbox.

3.1.4.1 GetMailTips

The **GetMailTips** operation gets the mail tips information for a mailbox.

```
<wsdl:operation name="GetMailTips">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetMailTips" />
  <wsdl:input>
    <soap:body parts="request" use="literal"/>
  </wsdl:input>
</wsdl:operation>
```

```

    <soap:header message="tns:GetMailTipsSoapIn" part="RequestVersion" use="literal"/>
    <soap:header message="tns:GetMailTipsSoapIn" part="MailboxCulture" use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body parts="GetMailTipsResult" use="literal" />
    <soap:header message="tns:GetMailTipsSoapOut" part="ServerVersion" use="literal"/>
  </wsdl:output>
</wsdl:operation>

```

3.1.4.1.1 Simple Types

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

3.1.4.1.1.1 t:MailTipTypes

The **MailTipType** describes the types of mail tips that are supported by the service.

```

<xs:simpleType name="MailTipTypes">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="All" />
        <xs:enumeration value="OutOfOfficeMessage" />
        <xs:enumeration value="MailboxFullStatus" />
        <xs:enumeration value="CustomMailTip" />
        <xs:enumeration value="ExternalMemberCount" />
        <xs:enumeration value="TotalMemberCount" />
        <xs:enumeration value="MaxMessageSize" />
        <xs:enumeration value="DeliveryRestriction" />
        <xs:enumeration value="ModerationStatus" />
        <xs:enumeration value="InvalidRecipient" />
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>

```

Value	Description
All	Represents all available mail tips.
OutOfOfficeMessage	Represents the Out of Office (OOF) message.
MailboxFullStatus	Represents the status for a mailbox being full.
CustomMailTip	Represents a custom mail tip.
ExternalMemberCount	Represents the count of external members.
TotalMemberCount	Represents the count of all members.
MaxMessageSize	Represents the maximum message size a recipient can accept.
DeliveryRestriction	Indicates whether delivery restrictions will prevent the sender's message from reaching the recipient.
ModerationStatus	Indicates whether the sender's message will be reviewed by a moderator.

Value	Description
InvalidRecipient	Indicates whether the recipient is valid.

When the InvalidRecipient **MailTipsType** is sent by the client to the server, the server will indicate which of the given recipients are invalid. A recipient is considered "invalid" in the following cases:

- The recipient's address has a routing type of "EX" and the recipient does not exist in the directory.
- The recipient's address has a routing type of SMTP, and the **domain** part of the SMTP address is empty.
- The recipient's address has a routing type of SMTP, and the domain part of the SMTP address is a domain for which the organization is authoritative, and the recipient does not exist in the directory.

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:ArrayOfRecipientsType

The **ArrayOfRecipientsType** complex type specifies an array of e-mail addresses.

```
<xs:complexType name="ArrayOfRecipientsType">
  <xs:choice minOccurs="0" maxOccurs="unbounded">
    <xs:element name="Mailbox" type="t:EmailAddressType" />
  </xs:choice>
</xs:complexType>
```

Element	Type	Definition
Mailbox	t:EmailAddressType	Specifies the mailbox of the recipient. This value is optional.

3.1.4.1.2.2 m:ArrayOfMailTipsResponseMessageType

The **ArrayOfMailTipsResponseMessageType** type specifies an array of mail tips response messages.

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

Element	Type	Definition
MailTipsResponseMessageType	m:MailTipsResponseMessageType	Contains a mail tips response message. This element MUST occur at least once and can occur two or more times.

3.1.4.1.2.3 t:BaseEmailAddressType

The **BaseEmailAddressType** type specifies the base type for the **EmailAddressType** type.

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

3.1.4.1.2.4 t:Duration

The **Duration** type contains the start and end dates and times for sending OOF messages.

```
<xs:complexType name="Duration">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="StartTime" type="xs:dateTime" />
    <xs:element minOccurs="1" maxOccurs="1" name="EndTime" type="xs:dateTime" />
  </xs:sequence>
</xs:complexType>
```

Element	Type	Definition
StartTime	xs:dateTime	Specifies the date and time to start sending OOF messages. This element MUST occur if there is an OutOfOfficeMailTip .
EndTime	xs:dateTime	Specifies the date and time to stop sending Out of Office messages. This element MUST occur if there is an OutOfOfficeMailTip .

3.1.4.1.2.5 m:GetMailTipsResponseMessageType

The **GetMailTipsResponseMessageType** type contains the response message for a GetMailTips operation. The **GetMailTipsResponseMessageType** type extends the **ResponseMessageType**.

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

Element	Type	Definition
ResponseMessages	m:ArrayOfMailTipsResponseMessageType	Contains an array of mail tips response messages. This element MUST occur if there are mail tips.

3.1.4.1.2.6 m:GetMailTipsType

The **GetMailTipsType** type specifies the requested mail tips 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 **GetMailTipsType** type extends the **BaseRequestType** type.

```

<xs:complexType name="GetMailTipsType">
  <xs:complexContent>
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element name="SendingAs" type="t:EmailAddressType" minOccurs="1" maxOccurs="1" />
        <xs:element name="Recipients" type="t:ArrayOfRecipientsType" minOccurs="1"
maxOccurs="1" />
        <xs:element name="MailTipsRequested" type="t:MailTipTypes" minOccurs="1"
maxOccurs="1" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

3.1.4.1.2.7 t:MailTips

The **MailTips** complex type contains values for the sender hints service.

```

<xs:complexType name="MailTips">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="RecipientAddress" type="t:EmailAddressType"
/>
    <xs:element minOccurs="1" maxOccurs="1" name="PendingMailTips" type="t:MailTipTypes" />
    <xs:element minOccurs="0" maxOccurs="1" name="OutOfOffice" type="t:OutOfOfficeMailTip" />
    <xs:element minOccurs="0" maxOccurs="1" name="OutOfOfficeMessage" type="xs:string" />
    <xs:element minOccurs="0" maxOccurs="1" name="MailboxFull" type="xs:boolean" />
    <xs:element minOccurs="0" maxOccurs="1" name="CustomMailTip" type="xs:string" />
    <xs:element minOccurs="0" maxOccurs="1" name="TotalMemberCount" type="xs:int" />
    <xs:element minOccurs="0" maxOccurs="1" name="ExternalMemberCount" type="xs:int" />
    <xs:element minOccurs="0" maxOccurs="1" name="MaxMessageSize" type="xs:int" />
    <xs:element minOccurs="0" maxOccurs="1" name="DeliveryRestricted" type="xs:boolean" />
    <xs:element minOccurs="0" maxOccurs="1" name="IsModerated" type="xs:boolean" />
    <xs:element minOccurs="0" maxOccurs="1" name="InvalidRecipient" type="xs:boolean" />
  </xs:sequence>
</xs:complexType>

```

Element	Type	Definition
<RecipientAddress>	t:EmailAddressType	Specifies the mailbox of the recipient.
<PendingMailTips>	t:MailTipTypes	Indicates that the mail tips in this element could not be evaluated before the server's processing timeout expired.
<OutOfOffice>	t:OutOfOfficeMailTip	Specifies the response message for OOF and the duration for sending this message.
<MailboxFull>	xs:boolean	Specifies whether the mailbox for the recipient is full.
<CustomMailTip>	xs:string	Specifies a custom mail tip.
<TotalMemberCount>	xs:int	Specifies the total number of members in a group. This value MUST be a non-negative integer.
<ExternalMemberCount>	xs:int	Specifies the number of external members in a group. This value MUST be a non-negative integer.

Element	Type	Definition
<MaxMessageSize>	xs:int	Specifies the maximum message size the recipient can accept. This value MUST be a non-negative integer.
<DeliveryRestricted>	xs:boolean	Indicates whether delivery restrictions will prevent the sender's message from reaching the recipient.
<IsModerated>	xs:boolean	Specifies whether the recipient's mailbox is being moderated.
<InvalidRecipient>	xs:boolean	Specifies whether the recipient is invalid.

When the <InvalidRecipient> **MailTips** element is sent by the client to the server, the server will indicate which of the given recipients are invalid. A recipient is considered "invalid" in the following cases:

- The recipient's address has a routing type of "EX" and the recipient does not exist in the directory.
- The recipient's address has a routing type of SMTP, and the domain part of the SMTP address is empty.
- The recipient's address has a routing type of SMTP, and the domain part of the SMTP address is a domain for which the organization is authoritative, and the recipient does not exist in the directory.

3.1.4.1.2.8 m:MailTipsResponseMessageType

The **MailTipsResponseMessageType** type specifies mail tips settings. The **MailTipsResponseMessageType** type extends the **ResponseMessageType**.

```
<xs:complexType name="MailTipsResponseMessageType">
  <xs:complexContent>
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element name="MailTips" type="t:MailTips" minOccurs="0" maxOccurs="1"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Element	Type	Definition
MailTips	t:MailTips	Contains values for the sender hints service. This element MUST occur for sender hints configuration.

3.1.4.1.2.9 t:OutOfOfficeMailTip

The **OutOfOfficeMailTip** complex type contains the response message and a duration time for sending the response message.

```
<xs:complexType name="OutOfOfficeMailTip">
  <xs:sequence>
```

```

    <xs:element minOccurs="1" maxOccurs="1" name="ReplyBody" type="t:ReplyBody"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Duration" type="t:Duration"/>
  </xs:sequence>
</xs:complexType>

```

Element	Type	Definition
<ReplyBody>	t:ReplyBody	Contains the OOF message response. This element is required and MUST only occur once.
<Duration>	t:Duration	Contains the start and end time for sending OOF messages. This element is optional, and if present MUST only occur once.

3.1.4.1.2.10 t:ReplyBody

The **ReplyBody** type specifies the OOF message response.

```

<xs:complexType name="ReplyBody">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Message" type="xs:string" />
  </xs:sequence>
  <xs:attribute ref="xml:lang" use="optional" />
</xs:complexType>

```

Element	Type	Definition
Message	xs:string	Contains the OOF message response.
Lang	xml:lang	Indicates the language that the OOF message was written in. This element is optional.

3.1.4.1.3 Elements

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

3.1.4.1.3.1 GetMailTips

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

```

<xs:element name="GetMailTips" type="m:GetMailTipsType"/>

```

3.1.4.1.3.2 GetMailTipsResponse

The **GetMailTipsResponse** element specifies the response message for a **GetMailTips** operation.

```

<xs:element name="GetMailTipsResponse" type="m:GetMailTipsResponseMessageType"/>

```

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 GetMailTipsSoapIn

The **GetMailTipsSoapIn** message contains three parts.

Part Name	Element/Type	Description
request	GetMailTips	This part specifies the request.
RequestVersion	RequestServerVersion	This part specifies the schema version for the GetMailTips 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 GetMailTipsSoapOut

The **GetMailTipsSoapOut** message contains two parts.

Part Name	Element/Type	Description
GetMailTipsResult	GetMailTipsResponse	This part specifies the response.
ServerVersion	ServerVersionInfo	This part specifies the server version for the response.

3.1.4.2 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/GetServiceConfiguration" />
  <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" />
  </wsdl:output>
</wsdl:operation>
```



```

    <soap:header message="tns:GetServiceConfigurationSoapOut" part="ServerVersion"
    use="literal"/>
  </wsdl:output>
</wsdl:operation>

```

3.1.4.2.1 Simple Types

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

3.1.4.2.1.1 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:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>

```

Value	Description
MailTips	Represents the sender hints service configuration.

3.1.4.2.2 Complex Types

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

3.1.4.2.2.1 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
ServiceConfigurationResponseMessage Type	m:ServiceConfigurationResponseMessage Type	Contains a service configuration response message. This element

Element	Type	Definition
		MUST occur at least once and can occur two or more times.

3.1.4.2.2.2 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.

3.1.4.2.2.3 t:ConnectingSIDType

The **ConnectingSIDType** type specifies the mailbox identification mechanism for Exchange Impersonation.

```
<xs:complexType name="ConnectingSIDType">
  <xs:choice>
    <xs:element name="PrincipalName" type="t:NonEmptyStringType"/>
    <xs:element name="SID" type="t:NonEmptyStringType"/>
    <xs:element name="PrimarySmtpAddress" type="t:NonEmptyStringType"/>
    <xs:element name="SmtpAddress" type="t:NonEmptyStringType"/>
  </xs:choice>
</xs:complexType>
```

Element	Type	Definition
PrincipalName	t:NonEmptyStringType	Specifies the mailbox by user principal name. The SID , PrimarySmtpAddress , and SmtpAddress elements cannot be used if the PrincipalName element is used.
SID	t:NonEmptyStringType	Specifies the mailbox by security identifier. The PrincipalName , PrimarySmtpAddress , and SmtpAddress elements cannot be used if the SID element is used.
PrimarySmtpAddress	t:NonEmptyStringType	Specifies the mailbox by primary SMTP address. The SID , PrincipalName , and SmtpAddress elements cannot be used if the

Element	Type	Definition
		PrimarySmtpAddress element is used.
SmtpAddress	t:NonEmptyStringType	Specifies the mailbox by SMTP address. The SID , PrimarySmtpAddress , and PrincipalName elements cannot be used if the SmtpAddress element is used.

3.1.4.2.2.4 t: ExchangeImpersonationType

The **ExchangeImpersonationType** type specifies the account to impersonate by using Exchange Impersonation.

```
<xs:complexType name="ExchangeImpersonationType">
  <xs:sequence>
    <xs:element name="ConnectingSID" type="t:ConnectingSIDType" />
  </xs:sequence>
  <xs:anyAttribute namespace="http://schemas.xmlsoap.org/soap/envelope/">
  </xs:anyAttribute>
</xs:complexType>
```

Element	Type	Definition
ConnectingSID	t:ConnectingSIDType	Specifies the mailbox identification mechanism for Exchange Impersonation. This element MUST occur once if Exchange Impersonation is used.

3.1.4.2.2.5 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 response messages. This element MUST occur if there are configuration settings.

3.1.4.2.2.6 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 hints. This element is optional.
RequestedConfiguration	m:ArrayOfServiceConfigurationType	Specifies the requested service configurations. This element MUST be present.

3.1.4.2.2.7 t:MailTipsServiceConfiguration

The **MailTipsServiceConfiguration** complex type contains service configuration for the sender hints service. The **MailTipsServiceConfiguration** complex type extends the **ServiceConfigurationType** simple type (section [3.1.4.2.1.1](#)).

```
<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:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

```

    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

Element	Type	Definition
<MailTipsEnabled>	xs:boolean	Specifies if the MailTips 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 (section 3.1.4.1) should show sender hints 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 sender hints when offline. This element MUST be included if the MailTipsServiceConfiguration complex type is used.

3.1.4.2.2.8 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:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>

```

Element	Type	Definition
MailTipsConfiguration	t:MailTipsServiceConfiguration	Contains service configuration for the sender hints service. This element MUST occur for sender hints configuration.

3.1.4.2.2.9 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.

3.1.4.2.2.10 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 (zero) or more times.

3.1.4.2.3 Elements

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

3.1.4.2.3.1 t:ExchangeImpersonation

The **ExchangeImpersonation** element specifies the mailbox to impersonate.

```
<xs:element name="ExchangeImpersonation" type="t:ExchangeImpersonationType" />
```

3.1.4.2.3.2 m:GetServiceConfiguration

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

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

3.1.4.2.3.3 m:GetServiceConfigurationResponse

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

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

3.1.4.2.4 Attributes

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

3.1.4.2.5 Groups

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

3.1.4.2.6 Attribute Groups

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

3.1.4.2.7 Messages

The following WSDL message definitions are specific to this operation.

3.1.4.2.7.1 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

Part Name	Element/Type	Description
		mailbox. The cultures are defined by RFC3066 .

3.1.4.2.7.2 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 that are 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 GetMailTips Request

The following example shows how to get mail tips 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>
    <GetMailTips xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <SendingAs>
        <t:EmailAddress> user1@contoso.com </t:EmailAddress>
        <t:RoutingType>SMTP</t:RoutingType>
      </SendingAs>
      <Recipients>
        <t:Mailbox>
          <t:EmailAddress> user2@contoso.com </t:EmailAddress>
          <t:RoutingType>SMTP</t:RoutingType>
        </t:Mailbox>
      </Recipients>
      <MailTipsRequested>All</MailTipsRequested>
    </GetMailTips>
  </soap:Body>
</soap:Envelope>
```

4.2 GetMailTips Response

The following is an example of a successful response from the **GetMailTips** 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="536"
      MinorBuildNumber="0" 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">
    <GetMailTipsResponse ResponseClass="Success"
      xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
      <ResponseMessages>
        <MailTipsResponseMessageType ResponseClass="Success">
          <ResponseCode>NoError</ResponseCode>
          <m:MailTips xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
```

```

        <t:RecipientAddress
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
        <t:Name/>
        <t:EmailAddress>user2@contoso.com</t:EmailAddress>
        <t:RoutingType>SMTP</t:RoutingType>
        </t:RecipientAddress>
        <t:PendingMailTips
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"/>
        <t:OutOfOffice
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
        <t:ReplyBody>
        <t:Message/>
        </t:ReplyBody>
        </t:OutOfOffice>
        <t:MailboxFull
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">false</t:MailboxFull>
        <t:CustomMailTip
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">Hello World
Mailtips</t:CustomMailTip>
        <t>TotalMemberCount
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">1</t>TotalMemberCount>
        <t:ExternalMemberCount
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">0</t:ExternalMemberCount>
        <t:MaxMessageSize
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">10485760</t:MaxMessageSize>
        <t:DeliveryRestricted
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">false</t:DeliveryRestricted>
        <t:IsModerated
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">false</t:IsModerated>
        <t:InvalidRecipient
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">false</t:InvalidRecipient>
        </m:MailTips>
        </MailTipsResponseMessageType>
    </ResponseMessages>
</GetMailTipsResponse>
</s:Body>
</s:Envelope>

```

5 Security

5.1 Security Considerations for Implementers

The Mailtips Extensions to Web Service protocol does not use additional security mechanisms.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

See [\[WSDL\]](#) for a specification of Web Services Description Language (WSDL).

For ease of implementation, the full WSDL is provided.

```
<?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"
                  xmlns:s="http://www.w3.org/2001/XMLSchema"

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:m="http://schemas.microsoft.com/exchange/services/2006/messages"
              xmlns:tns="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">

      <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types" />

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

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

      <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:sequence>
          </xs:extension>
        </xs:complexContent>
      </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:sequence>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
    </xs:schema>
  </wsdl:types>
</wsdl:definitions>
```

```

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

<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:simpleType name="ResponseCodeType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="NoError"/>
        <xs:enumeration value="ErrorAccessDenied"/>
        <xs:enumeration value="ErrorAccountDisabled"/>
        <xs:enumeration value="ErrorADOperation"/>
        <xs:enumeration value="ErrorADSessionFilter"/>
        <xs:enumeration value="ErrorADUnavailable"/>
        <xs:enumeration value="ErrorImpersonateUserDenied"/>
        <xs:enumeration value="ErrorImpersonationDenied"/>
        <xs:enumeration value="ErrorImpersonationFailed"/>
        <xs:enumeration value="ErrorIncorrectSchemaVersion"/>
        <xs:enumeration value="ErrorInsufficientResources"/>
        <xs:enumeration value="ErrorInternalServerError"/>
        <xs:enumeration value="ErrorInternalServerTransientError"/>
        <xs:enumeration value="ErrorInvalidArgument"/>
        <xs:enumeration value="ErrorInvalidOperation"/>
        <xs:enumeration value="ErrorInvalidRequest"/>
        <xs:enumeration value="ErrorInvalidRoutingType"/>
        <xs:enumeration value="ErrorInvalidServerVersion"/>
        <xs:enumeration value="ErrorMailboxStoreUnavailable"/>
        <xs:enumeration value="ErrorNotEnoughMemory"/>
        <xs:enumeration value="ErrorSchemaValidation"/>
        <xs:enumeration value="ErrorServerBusy"/>
        <xs:enumeration value="ErrorUnsupportedCulture"/>
    </xs:restriction>
</xs:simpleType>

<xs:complexType name="BaseRequestType" abstract="true"/>

<xs:complexType name="ResponseMessageType">
    <xs:sequence minOccurs="0">
        <xs:element name="MessageText" type="xs:string" minOccurs="0"/>
        <xs:element name="ResponseCode" type="m:ResponseCodeType" minOccurs="0"/>
        <xs:element name="DescriptiveLinkKey" type="xs:int" minOccurs="0"/>
        <xs:element name="MessageXml" minOccurs="0">
            <xs:complexType>
                <xs:sequence>

```

```

        <xs:any processContents="lax" minOccurs="0" maxOccurs="unbounded"/>
      </xs:sequence>
    </xs:complexType>

    </xs:element>
  </xs:sequence>
  <xs:attribute name="ResponseClass" type="t:ResponseClassType" use="required"/>
</xs:complexType>

<xs:complexType name="ArrayOfMailTipsResponseMessageType">
  <xs:sequence>
    <xs:element name="MailTipsResponseMessageType" type="m:MailTipsResponseMessageType"
minOccurs="1" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

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

<xs:complexType name="GetMailTipsType">
  <xs:complexContent>
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element name="SendingAs" type="t:EmailAddressType" minOccurs="1"
maxOccurs="1" />
        <xs:element name="Recipients" type="t:ArrayOfRecipientsType" minOccurs="1"
maxOccurs="1" />
        <xs:element name="MailTipsRequested" type="t:MailTipTypes" minOccurs="1"
maxOccurs="1" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:complexType name="MailTipsResponseMessageType">
  <xs:complexContent>
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element name="MailTips" type="t:MailTips" minOccurs="0" maxOccurs="1"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

  <xs:element name="GetMailTipsResponse" type="m:GetMailTipsResponseMessageType"/>

  <xs:element name="GetMailTips" type="m:GetMailTipsType"/>
</xs:schema>

<xs:schema id="types" elementFormDefault="qualified" version="Exchange2010"

```

```

xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:import namespace="http://www.w3.org/XML/1998/namespace"/>

<xs:complexType name="ServiceConfiguration"/>

<xs:simpleType name="ExchangeVersionType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Exchange2010" />
  </xs:restriction>
</xs:simpleType>

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

<xs:simpleType name="MailTipTypes">
  <xs:list>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="All" />
        <xs:enumeration value="OutOfOfficeMessage" />
        <xs:enumeration value="MailboxFullStatus" />
        <xs:enumeration value="CustomMailTip" />
        <xs:enumeration value="ExternalMemberCount" />
        <xs:enumeration value="TotalMemberCount" />
        <xs:enumeration value="MaxMessageSize" />
        <xs:enumeration value="DeliveryRestriction" />
        <xs:enumeration value="ModerationStatus" />
        <xs:enumeration value="InvalidRecipient" />
      </xs:restriction>
    </xs:simpleType>
  </xs:list>
</xs:simpleType>

<xs:complexType name="BaseEmailAddressType" />

<xs:complexType name="EmailAddressType">
  <xs:complexContent>
    <xs:extension base="t:BaseEmailAddressType">
      <xs:sequence>
        <xs:element name="EmailAddress" type="t:NonEmptyStringType" minOccurs="0"/>
        <xs:element name="RoutingType" type="t:NonEmptyStringType" minOccurs="0"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:complexType name="MailboxCultureType">
  <xs:simpleContent>
    <xs:extension base="xs:language">
      <xs:anyAttribute namespace="http://schemas.xmlsoap.org/soap/envelope/">
    </xs:anyAttribute>
  </xs:extension>
</xs:complexType>

```

```

    </xs:simpleContent>
  </xs:complexType>

  <xs:element name="RequestServerVersion">
    <xs:complexType>
      <xs:attribute name="Version" type="t:ExchangeVersionType" fixed="Exchange2010"
use="required"/>
      <xs:anyAttribute namespace="http://schemas.xmlsoap.org/soap/envelope/">
      </xs:anyAttribute>
    </xs:complexType>
  </xs:element>

  <xs:element name="ServerVersionInfo">
    <xs:complexType>
      <xs:attribute name="MajorVersion" type="xs:int" use="optional"/>
      <xs:attribute name="MinorVersion" type="xs:int" use="optional"/>
      <xs:attribute name="MajorBuildNumber" type="xs:int" use="optional"/>
      <xs:attribute name="MinorBuildNumber" type="xs:int" use="optional"/>
      <xs:attribute name="Version" type="xs:string" use="optional"/>
    </xs:complexType>
  </xs:element>

  <xs:complexType name="ArrayOfRecipientsType">
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:element name="Mailbox" type="t:EmailAddressType"/>
    </xs:choice>
  </xs:complexType>

  <xs:complexType name="Duration">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="StartTime" type="xs:dateTime" />
      <xs:element minOccurs="1" maxOccurs="1" name="EndTime" type="xs:dateTime" />
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="OutOfOfficeMailTip">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="ReplyBody" type="t:ReplyBody"/>
      <xs:element minOccurs="0" maxOccurs="1" name="Duration" type="t:Duration"/>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="MailTips">
    <xs:sequence>
      <xs:element minOccurs="1" maxOccurs="1" name="RecipientAddress"
type="t:EmailAddressType" />
      <xs:element minOccurs="1" maxOccurs="1" name="PendingMailTips"
type="t:MailTipTypes" />
      <xs:element minOccurs="0" maxOccurs="1" name="OutOfOffice"
type="t:OutOfOfficeMailTip" />
      <xs:element minOccurs="0" maxOccurs="1" name="OutOfOfficeMessage" type="xs:string"
/>
      <xs:element minOccurs="0" maxOccurs="1" name="MailboxFull" type="xs:boolean" />
      <xs:element minOccurs="0" maxOccurs="1" name="CustomMailTip" type="xs:string" />
      <xs:element minOccurs="0" maxOccurs="1" name="TotalMemberCount" type="xs:int" />
      <xs:element minOccurs="0" maxOccurs="1" name="ExternalMemberCount" type="xs:int" />
      <xs:element minOccurs="0" maxOccurs="1" name="MaxMessageSize" type="xs:int" />
      <xs:element minOccurs="0" maxOccurs="1" name="DeliveryRestricted" type="xs:boolean"
/>
    </xs:sequence>
  </xs:complexType>

```



```

        <xs:element minOccurs="0" maxOccurs="1" name="IsModerated" type="xs:boolean" />
        <xs:element minOccurs="0" maxOccurs="1" name="InvalidRecipient" type="xs:boolean"
/>
    </xs:sequence>
</xs:complexType>

<xs:complexType name="ReplyBody">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Message" type="xs:string" />
    </xs:sequence>
    <xs:attribute ref="xml:lang" use="optional" />
</xs:complexType>

<xs:element name="MailboxCulture" type="t:MailboxCultureType"/>

<xs:simpleType name="ResponseClassType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="Success" />
        <xs:enumeration value="Warning" />
        <xs:enumeration value="Error" />
    </xs:restriction>
</xs:simpleType>

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

<xs:complexType name="ConnectingSIDType">
    <xs:choice>
        <xs:element name="PrincipalName" type="t:NonEmptyStringType"/>
        <xs:element name="SID" type="t:NonEmptyStringType"/>
        <xs:element name="PrimarySmtAddress" type="t:NonEmptyStringType"/>
        <xs:element name="SmtAddress" type="t:NonEmptyStringType"/>
    </xs:choice>
</xs:complexType>

<xs:complexType name="ExchangeImpersonationType">
    <xs:sequence>
        <xs:element name="ConnectingSID" type="t:ConnectingSIDType" />
    </xs:sequence>
    <xs:anyAttribute namespace="http://schemas.xmlsoap.org/soap/envelope/" />
</xs:complexType>

<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:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>

```

```

        <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="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:element name="ExchangeImpersonation" type="t:ExchangeImpersonationType" />

</xs:schema>

</wsdl:types>

<wsdl:message name="GetMailTipsSoapIn">
    <wsdl:part name="request" element="tns:GetMailTips" />
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>
</wsdl:message>

<wsdl:message name="GetMailTipsSoapOut">
    <wsdl:part name="GetMailTipsResult" element="tns:GetMailTipsResponse" />
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>

<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="GetMailTips">
        <wsdl:input message="tns:GetMailTipsSoapIn" />
        <wsdl:output message="tns:GetMailTipsSoapOut" />
    </wsdl:operation>

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

```

```

    </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="GetMailTips">
      <soap:operation
        soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetMailTips" />
      <wsdl:input>
        <soap:body parts="request" use="literal"/>
        <soap:header message="tns:GetMailTipsSoapIn" part="RequestVersion" use="literal"/>
        <soap:header message="tns:GetMailTipsSoapIn" part="MailboxCulture" use="literal"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body parts="GetMailTipsResult" use="literal" />
        <soap:header message="tns:GetMailTipsSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>

    <wsdl:operation name="GetServiceConfiguration">
      <soap:operation
        soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetServiceConfiguration" />
      <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>

```

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

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-OXWMT] protocol documentation between July 2009 and November 2009 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
1.5 Prerequisites/Preconditions	50592 Added information about how to find the URL that is used by this protocol.	N	New content added.
1.6 Applicability Statement	50596 Added applicability information.	N	New content added.
2.2.3.6 t:ServerVersionInfo	50600 Updated the attribute table to specify that integer values must be non-negative.	N	Content update.
3.1.4.1.2.1 t:ArrayOfRecipientsType	50607 Updated the element table to specify that the Mailbox element is optional.	N	Content update.
3.1.4.1.2.7 t:MailTips	50600 Updated the element table to specify that TotalMemberCount, ExternalMemberCount, and MaxMessageSize integer values have to be non-negative.	N	Content update.
3.1.4.1.2.9 t:OutOfOfficeMailTip	50607 Updated the elements table to specify that the ReplyBody element is required and the Duration element is optional.	N	Content update.
3.1.4.2.2.7 t:MailTipsServiceConfiguration	50600 Updated the element table to specify that MaxRecipientsPerGetMailTipsRequest, MaxMessageSize, and LargeAudienceThreshold integer values have to be non-negative.	N	Content update.
3.1.4.2.2.7 t:MailTipsServiceConfiguration	Added new element.	N	New content added.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Revision Type
4.2 GetMailTips Response	52514 Changed sample code return value to "Hello World Mailtips".	N	Editorially updated.
8 Change Tracking	53348 Updated the specification title.	N	Content update.

9 Index

A

Abstract data model
[server](#) 17
[Applicability](#) 8

C

[Capability negotiation](#) 8
[Change tracking](#) 45
Client
[overview](#) 17
[Client details](#) 32

D

Data model – abstract
[server](#) 17

E

[Examples - overview](#) 33
[ExchangeServicePortType port type](#) 17

F

Fields
[vendor-extensible](#) 8
[Full WSDL](#) 36

G

[Glossary](#) 6

I

[Implementer – security considerations](#) 35
Initialization
[server](#) 17
[Introduction](#) 6

M

Message processing
[server](#) 17
Messages
[overview](#) 10
[syntax](#) 10
[transport](#) 10

N

[Normative references](#) 6

O

[Overview \(synopsis\)](#) 7

P

Port types
[ExchangeServicePortType](#) 17
[Preconditions](#) 8
[Prerequisites](#) 8
[Product behavior](#) 44

R

References
[normative](#) 6
[Relationship to other protocols](#) 7

S

Security
[implementer](#) 35
[overview](#) 35
Sequencing rules
[server](#) 17
Server
[abstract data model](#) 17
[ExchangeServicePortType port type](#) 17
[initialization](#) 17
[message processing](#) 17
[overview](#) 17
[sequencing rules](#) 17
[timers](#) 17
[Standards assignments](#) 9
Syntax
[messages - overview](#) 10

T

Timers
[server](#) 17
[Tracking changes](#) 45
[Transport](#) 10

V

[Vendor-extensible fields](#) 8
[Versioning](#) 8

W

[WSDL](#) 36