

[MS-OXWSADISC]: Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol Specification

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 iplg@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.
- **Fictitious Names.** The example companies, organizations, products, domain names, e-mail addresses, logos, people, places, and events depicted in this documentation are fictitious. No association with any real company, organization, product, domain name, email address, logo, person, place, or event is intended or should be inferred.

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
07/15/2009	1.0	Major	Initial Availability.
11/04/2009	2.0.0	Major	Updated and revised the technical content.
02/10/2010	3.0.0	Major	Updated and revised the technical content.
05/05/2010	4.0.0	Major	Updated and revised the technical content.
08/04/2010	5.0	Major	Significantly changed the technical content.
11/03/2010	6.0	Major	Significantly changed the technical content.
03/18/2011	7.0	Major	Significantly changed the technical content.
08/05/2011	7.1	Minor	Clarified the meaning of the technical content.
10/07/2011	8.0	Major	Significantly changed the technical content.

Table of Contents

1 Introduction	7
1.1 Glossary	7
1.2 References	8
1.2.1 Normative References	8
1.2.2 Informative References	9
1.3 Overview	9
1.4 Relationship to Other Protocols	12
1.5 Prerequisites/Preconditions	12
1.6 Applicability Statement	12
1.7 Versioning and Capability Negotiation	12
1.8 Vendor Extensible Fields	13
1.9 Standards Assignments	13
2 Messages	14
2.1 Transport	14
2.2 Common Message Syntax	14
2.2.1 Namespaces	14
2.2.2 Messages	15
2.2.3 Elements	15
2.2.3.1 ServerVersionInfo Element	15
2.2.3.2 Domains Element	15
2.2.4 Complex Types	15
2.2.4.1 tns:ServerVersionInfo Complex Type	16
2.2.4.2 tns:Domains Complex Type	16
2.2.5 Simple Types	17
2.2.6 Attributes	17
2.2.7 Groups	17
2.2.8 Attribute Groups	17
3 Protocol Details	18
3.1 Autodiscover Server Details	18
3.1.1 Abstract Data Model	18
3.1.2 Timers	18
3.1.3 Initialization	18
3.1.4 Message Processing Events and Sequencing Rules	18
3.1.4.1 GetDomainSettings	18
3.1.4.1.1 Messages	19
3.1.4.1.1.1 tns:GetDomainSettingsRequestMessage	19
3.1.4.1.1.2 tns:GetDomainSettingsRequestMessage_Headers	20
3.1.4.1.1.3 tns:GetDomainSettingsResponseMessage	20
3.1.4.1.1.4 tns:GetDomainSettingsResponseMessage_Headers	21
3.1.4.1.2 Elements	21
3.1.4.1.2.1 tns:GetDomainSettingsRequestMessage Element	22
3.1.4.1.2.2 tns:GetDomainSettingsResponseMessage Element	22
3.1.4.1.2.3 tns:GetDomainSettingsRequest Element	23
3.1.4.1.2.4 tns:GetDomainSettingsResponse Element	23
3.1.4.1.2.5 tns:ArrayOfDomainResponse Element	23
3.1.4.1.2.6 tns:DomainResponse Element	23
3.1.4.1.2.7 tns:DomainSettingErrors Element	24
3.1.4.1.2.8 tns:DomainSettingError Element	24

3.1.4.1.2.9	tns:DomainSettings Element	24
3.1.4.1.2.10	tns:DomainSetting Element	24
3.1.4.1.2.11	tns:DomainStringSetting Element	24
3.1.4.1.3	Complex Types	25
3.1.4.1.3.1	tns:GetDomainSettingsRequest Complex Type	25
3.1.4.1.3.2	tns:GetDomainSettingsResponse Complex Type	26
3.1.4.1.3.3	tns:ArrayOfDomainResponse Complex Type	27
3.1.4.1.3.4	tns:DomainResponse Complex Type	27
3.1.4.1.3.5	tns:DomainSettingErrors Complex Type	28
3.1.4.1.3.6	tns:DomainSettingError Complex Type	29
3.1.4.1.3.7	tns:DomainSettings Complex Type	29
3.1.4.1.3.8	tns:DomainSetting Complex Type	30
3.1.4.1.3.9	tns:DomainStringSetting Complex Type	30
3.1.4.2	GetFederationInformation	31
3.1.4.2.1	Messages	32
3.1.4.2.1.1	tns:GetFederationInformationRequestMessage	33
3.1.4.2.1.2	tns:GetFederationInformationRequestMessage_Headers	33
3.1.4.2.1.3	tns:GetFederationInformationResponseMessage	34
3.1.4.2.1.4	tns:GetFederationInformationResponseMessage_Headers	34
3.1.4.2.2	Elements	34
3.1.4.2.2.1	tns:GetFederationInformationRequestMessage Element	35
3.1.4.2.2.2	tns:GetFederationInformationResponseMessage Element	35
3.1.4.2.2.3	tns:GetFederationInformationRequest Element	36
3.1.4.2.2.4	tns:GetFederationInformationResponse Element	36
3.1.4.2.3	Complex Types	36
3.1.4.2.3.1	tns:GetFederationInformationRequest Complex Type	37
3.1.4.2.3.2	tns:GetFederationInformationResponse Complex Type	37
3.1.4.2.3.3	tns:TokenIssuer Complex Type	38
3.1.4.2.3.4	tns:TokenIssuers Complex Type	39
3.1.4.3	GetOrganizationRelationshipSettings	39
3.1.4.3.1	Messages	40
3.1.4.3.1.1	tns:GetOrganizationRelationshipSettingsRequestMessage	41
3.1.4.3.1.2	tns:GetOrganizationRelationshipSettingsRequestMessage_Headers	41
3.1.4.3.1.3	tns:GetOrganizationRelationshipSettingsResponseMessage	41
3.1.4.3.1.4	tns:GetOrganizationRelationshipSettingsResponseMessage_Headers	42
3.1.4.3.2	Elements	42
3.1.4.3.2.1	tns:GetOrganizationRelationshipSettingsRequestMessage Element	43
3.1.4.3.2.2	tns:GetOrganizationRelationshipSettingsRequest Element	43
3.1.4.3.2.3	tns:GetOrganizationRelationshipSettingsResponseMessage Element	44
3.1.4.3.2.4	tns:GetOrganizationRelationshipSettingsResponse Element	44
3.1.4.3.2.5	tns:OrganizationRelationshipSettingsCollection Element	44
3.1.4.3.2.6	tns:OrganizationRelationshipSettings Element	45
3.1.4.3.3	Complex Types	45
3.1.4.3.3.1	tns:GetOrganizationRelationshipSettingsRequest Complex Type	45
3.1.4.3.3.2	tns:GetOrganizationRelationshipSettingsResponse Complex Type	46
3.1.4.3.3.3	tns:OrganizationRelationshipSettingsCollection Complex Type	47
3.1.4.3.3.4	tns:OrganizationRelationshipSettings Complex Type	47
3.1.4.4	GetUserSettings	48
3.1.4.4.1	Messages	49
3.1.4.4.1.1	tns:GetUserSettingsRequestMessage	50
3.1.4.4.1.2	tns:GetUserSettingsRequestMessage_Headers	50
3.1.4.4.1.3	tns:GetUserSettingsResponseMessage	50
3.1.4.4.1.4	tns:GetUserSettingsResponseMessage_Headers	51

3.1.4.4.2	Elements.....	51
3.1.4.4.2.1	tns:GetUserSettingsRequestMessage Element	52
3.1.4.4.2.2	tns:GetUserSettingsResponseMessage Element	53
3.1.4.4.2.3	tns:GetUserSettingsRequest Element	53
3.1.4.4.2.4	tns:GetUserSettingsResponse Element	54
3.1.4.4.2.5	tns:AutodiscoverRequest Element.....	54
3.1.4.4.2.6	tns:Users Element	54
3.1.4.4.2.7	tns:User Element.....	54
3.1.4.4.2.8	tns:RequestedSettings Element.....	54
3.1.4.4.2.9	tns:RequestedServerVersion Element.....	55
3.1.4.4.2.10	tns:AutodiscoverResponse Element	55
3.1.4.4.2.11	tns:ErrorCode Element	55
3.1.4.4.2.12	tns:ArrayOfUserResponse Element.....	55
3.1.4.4.2.13	tns:UserResponse Element.....	56
3.1.4.4.2.14	tns:UserSettingErrors Element	56
3.1.4.4.2.15	tns:UserSettingError Element.....	56
3.1.4.4.2.16	tns:UserSettings Element	56
3.1.4.4.2.17	tns:UserSetting Element.....	56
3.1.4.4.2.18	tns:StringSetting Element.....	57
3.1.4.4.2.19	tns:WebClientUrlCollectionSetting Element.....	57
3.1.4.4.2.20	tns:WebClientUrls Element.....	57
3.1.4.4.2.21	tns:WebClientUrl Element	57
3.1.4.4.2.22	tns:ProtocolConnectionCollectionSetting Element.....	57
3.1.4.4.2.23	tns:ProtocolConnections Element	58
3.1.4.4.2.24	tns:ProtocolConnection Element	58
3.1.4.4.2.25	tns:AlternateMailboxCollectionSetting Element	58
3.1.4.4.2.26	tns:AlternateMailboxes Element.....	58
3.1.4.4.2.27	tns:AlternateMailbox Element.....	58
3.1.4.4.3	Complex Types	59
3.1.4.4.3.1	tns:GetUserSettingsRequest Complex Type.....	60
3.1.4.4.3.2	tns:AutodiscoverRequest Complex Type	61
3.1.4.4.3.3	tns:Users Complex Type.....	61
3.1.4.4.3.4	tns:User Complex Type	62
3.1.4.4.3.5	tns:RequestedSettings Complex Type	62
3.1.4.4.3.6	tns:GetUserSettingsResponse Complex Type	65
3.1.4.4.3.7	tns:AutodiscoverResponse Complex Type	66
3.1.4.4.3.8	tns:UserResponse Complex Type.....	67
3.1.4.4.3.9	tns:UserSettingErrors Complex Type.....	68
3.1.4.4.3.10	tns:ArrayOfUserResponse Complex Type	68
3.1.4.4.3.11	tns:UserSettingError Complex Type	69
3.1.4.4.3.12	tns:UserSettings Complex Type.....	69
3.1.4.4.3.13	tns:UserSetting Complex Type	70
3.1.4.4.3.14	tns:StringSetting Complex Type	70
3.1.4.4.3.15	tns:WebClientUrlCollectionSetting Complex Type	71
3.1.4.4.3.16	tns:WebClientUrls Complex Type	71
3.1.4.4.3.17	tns:WebClientUrl Complex Type.....	72
3.1.4.4.3.18	tns:ProtocolConnectionCollectionSetting Complex Type	72
3.1.4.4.3.19	tns:ProtocolConnections Complex Type	73
3.1.4.4.3.20	tns:ProtocolConnection Complex Type.....	74
3.1.4.4.3.21	tns:AlternateMailboxCollectionSetting Complex Type.....	74
3.1.4.4.3.22	tns:AlternateMailboxes Complex Type	75
3.1.4.4.3.23	tns:AlternateMailbox Complex Type	75
3.1.4.4.4	Simple Types.....	76

3.1.4.4.1	tns:ExchangeVersion Simple Type	76
3.1.4.4.2	tns:ErrorCode Simple Type	77
3.1.5	Timer Events	78
3.1.6	Other Local Events	78
4	Protocol Examples	79
4.1	GetDomainSettings Operation	79
4.2	GetFederationInformation Operation	80
4.3	GetUserSettings Operation.....	81
5	Security	84
5.1	Security Considerations for Implementers.....	84
5.2	Index of Security Parameters	84
6	Appendix A: Full WSDL	85
7	Appendix B: Full XML Schema	89
7.1	Messages Schema.....	89
8	Appendix C: Product Behavior	98
9	Change Tracking.....	100
10	Index	102

1 Introduction

The Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol is used to send request-response messages for retrieving user settings configuration information. Clients use this protocol and the Autodiscover service (autodiscovery) to obtain specific configuration settings by passing in their e-mail addresses as simple strings.

The Autodiscover service can then be used to discover and configure internal and external URLs for the server's Web services during profile setup and later sessions with the computer that has the Client Access server role installed.

Sections 1.8, 2, and 3 of this specification are normative and contain RFC 2119 language. Section 1.5 and 1.9 are also normative but cannot contain RFC 2119 language. All other sections and examples in this specification are informative.

1.1 Glossary

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

- Active Directory**
- distinguished name (DN)**
- fully qualified domain name (FQDN)**
- Hypertext Transfer Protocol (HTTP)**
- Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**
- remote procedure call (RPC)**
- Secure Sockets Layer (SSL)**
- XML**

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

- address book**
- endpoint**
- Global Address List (GAL)**
- Internet Message Access Protocol - Version 4 (IMAP4)**
- mailbox**
- offline address book (OAB)**
- Post Office Protocol - Version 3 (POP3)**
- security token service (STS)**
- Simple Mail Transfer Protocol (SMTP)**
- Simple Object Access Protocol (SOAP)**
- SOAP action**
- SOAP body**
- SOAP header**
- SOAP message**
- Unified Messaging**
- Uniform Resource Identifier (URI)**
- Uniform Resource Locator (URL)**
- Web Services Description Language (WSDL)**
- WSDL message**
- WSDL port type**
- XML namespace**
- 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.

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

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

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

[WSA10] W3C, "WS-Addressing 1.0 Namespace: <http://www.w3.org/2005/08/addressing>", <http://www.w3.org/2005/08/addressing/>

[WSADDRCORE] Gudgin, M., Hadley, M., Rogers, T., Eds., "Web Services Addressing 1.0 - Core", W3C Recommendation, May 2006, <http://www.w3.org/TR/2006/REC-ws-addr-core-20060509/>

[WSAddressing] Box, D., Christensen, E., Ferguson, D., et al., "Web Services Addressing (WS-Addressing)", August 2004, <http://www.w3.org/Submission/ws-addressing/>

If you have any trouble finding [WSAddressing], please check [here](#).

[WSADDR-Metadata] Gudgin, M., Hadley, M., Rogers, T., and Yalçinalp, Ü., Eds., "Web Services Addressing 1.0 - Metadata", W3C Recommendation, September 2007, <http://www.w3.org/TR/2007/REC-ws-addr-metadata-20070904/>

[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>

[WSDLSOAP] Angelov, D., Ballinger, K., Butek, R., et al., "WSDL 1.1 Binding Extension for SOAP 1.2", W3c Member Submission, April 2006, <http://www.w3.org/Submission/wsdl11soap12/>

[WS-MetadataExchangeDir] BEA Systems, Computer Associates, IBM, Microsoft, SAP, Sun, and webMethods, "Web Services Metadata Exchange (WS-MetadataExchange)", August 2006, <http://schemas.xmlsoap.org/ws/2004/09/mex/>

[WSPOLICY] Bajaj, S., Box, D., Chappell, D., et al., "Web Services Policy Framework (WS-POLICY) and Web Services Policy Attachment (WS-PolicyAttachment)", March 2006, <http://schemas.xmlsoap.org/ws/2004/09/policy>

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, <http://www.w3.org/TR/2009/REC-xml-names-20091208/>

[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/>

1.2.2 Informative References

[MS-GLOS] Microsoft Corporation, "[Windows Protocols Master Glossary](#)".

[MS-OXDCLI] Microsoft Corporation, "[Autodiscover Publishing and Lookup Protocol Specification](#)".

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

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

1.3 Overview

The Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol enables clients to ascertain e-mail configuration settings for specific e-mail addresses. This protocol includes four operations for requesting specific configuration settings: **GetDomainSetting**, **GetFederationInformation**, **GetOrganizationRelationshipSettings**, and **GetUserSettings**. If the user configuration settings listed and described in the following table are implemented by the server, they are then included in valid server responses.

Configuration setting name	Description
UserDisplayName	The user's display name.
UserDN	The user's legacy DN .
UserDeploymentId	The user's deployment identifier.
InternalMailboxServer	The fully qualified domain name (FQDN) of the mailbox server.
InternalRpcClientServer	The FQDN of the RPC client server.
InternalMailboxServerDN	The legacy DN of the mailbox server.
InternalEcpUrl	The internal Uniform Resource Locator (URL) of the server's control panel.
InternalEcpVoicemailUrl	The internal URL of the server's control panel for voicemail customization.
InternalEcpEmailSubscriptionsUrl	The internal URL of the server's control panel for e-mail subscriptions.
InternalEcpTextMessagingUrl	The internal URL of the server's control panel for text messaging.
InternalEcpDeliveryReportUrl	The internal URL of the server's control panel for delivery reports.
InternalEcpRetentionPolicyTagsUrl	The internal URL of the server's control panel for retention policy tags.
InternalEcpPublishingUrl	The internal URL of the server's control panel for publishing.
InternalEwsUrl	The internal URL of the server's Web services.

Configuration setting name	Description
InternalOABUrl	The internal URL of the offline address book (OAB) .
InternalUMUrl	The internal URL of the Unified Messaging services.
InternalWebClientUrls	A collection of the internal URLs of the server's Web client.
MailboxDN	The distinguished name (DN) of the mailbox database of the user's mailbox.
PublicFolderServer	The name of the Public Folders server.
ActiveDirectoryServer	The name of the Active Directory (directory service) server.
ExternalMailboxServer	The name of the RPC over HTTP server.
ExternalMailboxServerRequiresSSL	A value that indicates whether the RPC over HTTP server requires Secure Sockets Layer (SSL) .
ExternalMailboxServerAuthenticationMethods	The authentication methods supported by the RPC over HTTP server.
EcpVoicemailUrlFragment	The URL fragment of the server's control panel for voice mail customization.
EcpEmailSubscriptionsUrlFragment	The URL fragment of the server's control panel for e-mail subscriptions.
EcpTextMessagingUrlFragment	The URL fragment of the server's control panel for text messaging.
EcpDeliveryReportUrlFragment	The URL fragment of the server's control panel for delivery reports.
EcpRetentionPolicyTagsUrlFragment	The URL fragment of the server's control panel for retention policy tags.
EcpPublishingUrlFragment	The URL fragment of the server's control panel for publishing.
ExternalEcpUrl	The external URL of the server's control panel.
ExternalEcpVoicemailUrl	The external URL of the server's control panel for voice mail customization.
ExternalEcpEmailSubscriptionsUrl	The external URL of the server's control panel for e-mail subscriptions.
ExternalEcpTextMessagingUrl	The external URL of the server's control panel for text messaging.
ExternalEcpDeliveryReportUrl	The external URL of the server's control panel for delivery reports.
ExternalEcpRetentionPolicyTagsUrl	The external URL of the server's control panel for retention policy tags.

Configuration setting name	Description
ExternalEcpPublishingUrl	The external URL of the server's control panel for publishing.
ExternalEwsUrl	The external URL of the server's Web services.
ExternalOABUrl	The external URL of the OAB.
ExternalUMUrl	The external URL of the Unified Messaging services.
ExternalWebClientUrls	The external URLs of the server's Web client.
CrossOrganizationSharingEnabled	A value indicating that cross-organization sharing is enabled.
AlternateMailboxes	A collection of alternate mailboxes.
CasVersion	The version of the Client Access server that is serving the specified request (for example, 14.XX.YYY.ZZZ).
EwsSupportedSchemas	A comma-separated list of schema versions supported by the server's Web services.
InternalPop3Connections	The internal connection settings list for POP3 protocol connections.
ExternalPop3Connections	The external connection settings list for POP3 protocol connections.
InternalImap4Connections	The internal connection settings list for IMAP4 protocol connections.
ExternalImap4Connections	The external connection settings list for IMAP4 protocol connections.
InternalSmtpConnections	The internal connection settings list for SMTP connections.
ExternalSmtpConnections	The external connection settings list for SMTP connections.
InternalServerExclusiveConnect	The internal server exclusive connect flag. If this is set to the text value "Off", clients will not connect to the server by means of this protocol.
ExternalServerExclusiveConnect	The external server exclusive connect flag. If this is set to the text value "On", clients will connect to the server by means of this protocol.
ExchangeRpcUrl	The URL that is used for remote procedure calls (RPCs) . This URL is internal to the server and is not to be used by clients.
ShowGalAsDefaultView	A Boolean value that indicates whether the Global Address List (GAL) should be shown as the address book . A text value of "true" indicates that the GAL is to be shown by default. A text value of "false" indicates that the contact list is to be shown.

Configuration setting name	Description
AutoDiscoverSMTPAddress	The AutoDiscover primary SMTP address for the user. This is the proxy address to be used instead of the user's e-mail address, if a proxy address exists.
InteropExternalEwsUrl	The external URL of the server's Web service endpoint (4) . This is the URL to a server that can serve mailboxes hosted on a server that does not have the Web services.
ExternalEwsVersion	The version of the Web services server that is delivering the specified request.
InteropExternalEwsVersion	The version of the server that the InteropExternalEwsUrl configuration setting points to.
MobileMailboxPolicy	The mobile mailbox policy settings.

1.4 Relationship to Other Protocols

The Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol uses SOAP over HTTP and SOAP over **HTTPS**, as shown in the following layering diagram.

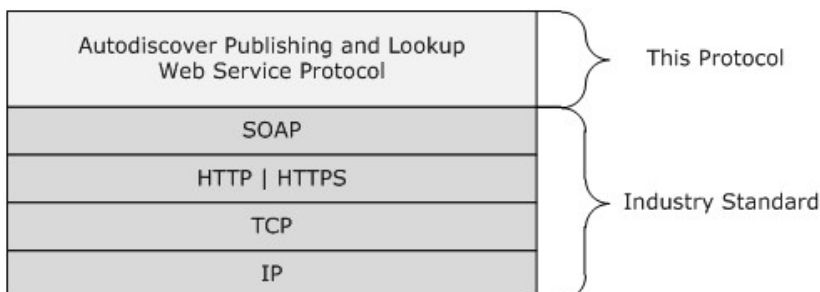


Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

The endpoint(4) URL that is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol or the Autodiscover Publishing and Lookup Protocol, as described in [\[MS-OXDSCLI\]](#), is required to form the HTTP request to the Web server that hosts the protocols. The operations that this protocol defines cannot be accessed unless the correct endpoint (4) is identified in the HTTP Web requests that target this protocol.

1.6 Applicability Statement

The Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol is applicable to **SOAP**-based clients in which a client can perform an autodiscovery of a user's configuration data by providing the user's e-mail address and using the server's Web services.

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses multiple transports with SOAP 1.1, as specified in section [2.1](#).
- **Protocol Versions:** This protocol has only one **WSDL port type** version. The **WSDL** version of the request is identified by using the **RequestServerVersion** element, as described in [\[MS-OXWSCDATA\]](#) section 2.2.4.8, and the version of the server responding to the request is identified using the **ServerVersionInfo** element, as described in [\[MS-OXWSCDATA\]](#) section 2.2.4.9.
- **Security and Authentication Methods:** This protocol relies on the Web server that hosts the application to perform authentication.
- **Capability Negotiation:** This protocol does not support version negotiation.

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 [\[SOAP1.1\]](#).

This protocol relies on the Web server that hosts the application to perform authentication. The protocol SHOULD use secure communication via HTTPS, as defined in [\[RFC2818\]](#).

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]
wsu	http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd	
soapenc	http://schemas.xmlsoap.org/soap/encoding/	[SOAP1.1]
wsam	http://www.w3.org/2007/05/addressing/metadata	[WSADDR-Metadata]
tns	http://schemas.microsoft.com/exchange/2010/Autodiscover	
wsa	http://schemas.xmlsoap.org/ws/2004/08/addressing	[WSAddressing]
wsp	http://schemas.xmlsoap.org/ws/2004/09/policy	[WSPOLICY]
wsap	http://schemas.xmlsoap.org/ws/2004/08/addressing/policy	Not implemented.
xsd	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] , [XMLSCHEMA2]
msc	http://schemas.microsoft.com/ws/2005/12/wsdl/contract	Not implemented.
wsaw	http://www.w3.org/2006/05/addressing/wsdl	[WSADDRCORE]
soap12	http://schemas.xmlsoap.org/wsdl/soap12	[WSDLSOAP]
wsa10	http://www.w3.org/2005/08/addressing	[WSA10]
wsx	http://schemas.xmlsoap.org/ws/2004/09/mex	[WS-MetadataExchangeDir]
targetNamespace	http://schemas.microsoft.com/exchange/2010/Autodiscover	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]

2.2.2 Messages

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

2.2.3 Elements

The following table summarizes the set of XML schema element definitions that are specific to this operation.

Element name	Description
ServerVersionInfo	Specifies the message server's version number, including the major and minor version numbers and the major and minor build numbers.
Domains	Specifies a list of domains discovered by the Autodiscover service.

2.2.3.1 ServerVersionInfo Element

The **ServerVersionInfo** element specifies the message server's version number, including the major and minor version numbers and the major and minor build numbers.

```
<xs:element name="ServerVersionInfo"
  type="tns:ServerVersionInfo"
  nillable="true"
/>
```

2.2.3.2 Domains Element

The **Domains** element specifies a list of domains to be discovered by the client.

```
<xs:element name="Domains"
  type="tns:Domains"
  nillable="true"
/>
```

2.2.4 Complex Types

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

Complex type name	Description
ServerVersionInfo	Represents the message server version. This complex type is returned in the SOAP header of a Web services response message.
Domains	Represents a collection of domain names to be used in autodiscovery.

2.2.4.1 tns:ServerVersionInfo Complex Type

The **ServerVersionInfo** complex type represents the message server version. This complex type is returned in the SOAP header of a Web services response message.

```
<xs:complexType name="ServerVersionInfo">
  <xs:sequence>
    <xs:element name="MajorVersion"
      type="xs:int"
      minOccurs="0"
    />
    <xs:element name="MinorVersion"
      type="xs:int"
      minOccurs="0"
    />
    <xs:element name="MajorBuildNumber"
      type="xs:int"
      minOccurs="0"
    />
    <xs:element name="MinorBuildNumber"
      type="xs:int"
      minOccurs="0"
    />
    <xs:element name="Version"
      type="xs:string"
      minOccurs="0"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **ServerVersionInfo** complex type.

Element name	Type	Description
MajorVersion	xs:int [XMLSCHEMA2]	Specifies the major version number for the server.
MinorVersion	xs:int	Specifies the minor version number for the server.
MajorBuildNumber	xs:int	Specifies the major build number for the server.
MinorBuildNumber	xs:int	Specifies the minor build number for the server.
Version	xs:string [XMLSCHEMA2]	Specifies the server product version.

The **ServerVersionInfo** specifies the version of the Autodiscover service.

2.2.4.2 tns:Domains Complex Type

The **Domains** complex type represents a collection of domain names to be used in autodiscovery.

```
<xs:complexType name="Domains">
  <xs:sequence>
    <xs:element name="Domain"
      type="xs:string"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>
```



```

        minOccurs="0"
        nillable="true"
    />
</xs:sequence>
</xs:complexType>

```

The following table lists the child element of the **Domains** complex type.

Element name	Type	Description
Domain	xs:string [XMLSCHEMA2]	Specifies the user's domain (the location of the e-mail server).

The **Domains** complex type is submitted in a request message.

2.2.5 Simple Types

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

2.2.6 Attributes

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

2.2.7 Groups

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

2.2.8 Attribute Groups

This specification does not define any common XML schema attribute group 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 Autodiscover Server Details

The Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol enables the user to determine specific user configuration settings by submitting e-mail addresses.

3.1.1 Abstract Data Model

None.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

The following table summarizes the list of WSDL operations as defined by this specification.

Operation name	Description
GetDomainSettings	Retrieves the domain settings for the domain.
GetFederationInformation	Gets the configuration data for the security token service (STS) .
GetOrganizationRelationshipSettings	Gets the settings from all matching organization relationships that have at least one domain that maps to at least one e-mail address claim in the token.
GetUserSettings	Gets the specified configurations settings for the e-mail user.

3.1.4.1 GetDomainSettings

The **GetDomainSettings** operation retrieves the specified domain settings for the user.

The following is the WSDL port type specification of the operation.

```
<wsdl:operation name="GetDomainSettings">
  <wsdl:input wsaw:Action="http://schemas.microsoft.com/exchange/2010/
    Autodiscover/Autodiscover/GetDomainSettings"
    name="GetDomainSettingsRequestMessage"
    message="tns:GetDomainSettingsRequestMessage" />
  <wsdl:output wsaw:Action="http://schemas.microsoft.com/exchange/2010/
    Autodiscover/Autodiscover/GetDomainSettingsResponse"
    name="GetDomainSettingsResponseMessage"/>
```

```

        message="tns:GetDomainSettingsResponseMessage" />
</wsdl:operation>

```

The following is the WSDL binding specification of the operation

```

<wsdl:operation name="GetDomainSettings">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetDomainSettings"
    style="document" />
  <wsdl:input name="GetDomainSettingsRequestMessage">
    <soap:header message="tns:GetDomainSettingsRequestMessage_Headers"
      part="RequestedServerVersion" use="literal" />
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output name="GetDomainSettingsResponseMessage">
    <soap:header message="tns:GetDomainSettingsResponseMessage_Headers"
      part="ServerVersionInfo" use="literal" />
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>

```

The protocol client sends a **GetDomainSettingsRequestMessage** request WSDL message and the protocol server responds with a **GetDomainSettingsResponseMessage** response WSDL message.

3.1.4.1.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to the **GetDomainSettings** operation.

Message name	Description
GetDomainSettingsRequestMessage	Retrieves the specified settings for a domain.
GetDomainSettingsRequestMessage_Headers	Specifies the SOAP header for a GetDomainSettings operation.
GetDomainSettingsResponseMessage	Represents the response to a GetDomainSettings operation for a specified domain.
GetDomainSettingsResponseMessage_Headers	Specifies the SOAP header for a GetDomainSettings operation.

3.1.4.1.1.1 tns:GetDomainSettingsRequestMessage

The **GetDomainSettingsRequestMessage** WSDL message specifies the **SOAP message** that represents a request to get the specified settings for a domain.

```

<wsdl:message name="GetDomainSettingsRequestMessage">
  <wsdl:part name="parameters" element="tns:GetDomainSettingsRequestMessage" />
</wsdl:message>

```

The **GetDomainSettingsRequestMessage** WSDL message is the input message for the **SOAP action** <http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetDomainSettings>.

The one part of the **GetDomainSettingsRequestMessage** message is described in the following table.

Part name	Element/type	Description
parameters	tns:GetDomainSettingsRequestMessage element (section 3.1.4.1.2.1)	Specifies the SOAP body (the parameters) of a call to a GetDomainSettings operation request.

3.1.4.1.1.2 tns:GetDomainSettingsRequestMessage_Headers

The **GetDomainSettingsRequestMessage_Headers Message** WSDL message specifies the SOAP header for a **GetDomainSettings** operation.

```
<wsdl:message name="GetDomainSettingsRequestMessage_Headers">
  <wsdl:part name="RequestedServerVersion" element="tns:RequestedServerVersion" />
</wsdl:message>
```

The **GetDomainSettingsRequestMessage_Headers** WSDL message contains one part, as described in the following table.

Part name	Element/type	Description
RequestedServerVersion	tns:RequestedServerVersion element (section 3.1.4.4.2.9)	Specifies the server version that the GetDomainSettings operation request targets.

3.1.4.1.1.3 tns:GetDomainSettingsResponseMessage

The **GetDomainSettingsResponseMessage** WSDL message specifies the SOAP message that represents the server response to a **GetDomainSettings** operation for an individual domain.

```
<wsdl:message name="GetDomainSettingsResponseMessage">
  <wsdl:part name="parameters" element="tns:GetDomainSettingsResponseMessage" />
</wsdl:message>
```

The **GetDomainSettingsResponseMessage** WSDL message is the response message for the SOAP action <http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetDomainSettingsResponse>.

The one part of the **GetDomainSettingsResponseMessage** WSDL message is described in the following table.

Part name	Element/type	Description
parameters	tns:GetDomainSettingsResponseMessage element (section 3.1.4.1.2.2)	Specifies the SOAP body of the response to a GetDomainSettings operation.

3.1.4.1.1.4 tns:GetDomainSettingsResponseMessage_Headers

The **GetDomainSettingsResponseMessage_Headers Message** WSDL message specifies the SOAP header for a **GetDomainSettings** operation response.

```
<wsdl:message name="GetDomainSettingsResponseMessage_Headers">
  <wsdl:part name="ServerVersionInfo" element="tns:ServerVersionInfo" />
</wsdl:message>
```

The **GetDomainSettingsResponseMessage_Headers** WSDL message contains one part, as described in the following table.

Part name	Element/type	Description
ServerVersionInfo	tns:ServerVersionInfo (section 2.2.3.1)	Contains the server version that processed the GetDomainSettings operation request.

3.1.4.1.2 Elements

The following table summarizes the set of XML schema element definitions that are specific to the **GetDomainSettings** operation.

Element name	Description
GetDomainSettingsRequestMessage	Specifies a call to the server, requesting configuration settings for the user's domain. The GetDomainSettingsResponseMessage element (section 3.1.4.1.2.2) response contains the domain settings requested in this call.
GetDomainSettingsResponseMessage	Returns to the caller the user's configuration settings that were requested in the GetDomainSettingsRequestMessage element (section 3.1.4.1.2.1).
GetDomainSettingsRequest	Represents the parameters of a call to a GetDomainSettings operation.
GetDomainSettingsResponse	Represents the response to a GetDomainSettings operation for a domain, and returns the domain settings.
ArrayOfDomainResponse	Represents an array of DomainResponse elements (section 3.1.4.1.2.6). Each DomainResponse element contains the requested settings for the specified user.
DomainResponse	Contains the requested settings for the specified domain.
DomainSettingErrors	Contains error information for settings that could not be returned.
DomainSettingError	Represents an error that occurred while retrieving a domain setting in response to a GetDomainSettings operation request.
DomainSettings	Represents the domain settings that were submitted in a request or returned by an Autodiscover response.

Element name	Description
DomainSetting	Represents the base class for all domain settings returned by the GetDomainSettings request.
DomainStringSetting	Represents a domain setting.

3.1.4.1.2.1 tns:GetDomainSettingsRequestMessage Element

The **GetDomainSettingsRequestMessage** element specifies a call to the server, requesting configuration settings for the user's domain. The **GetDomainSettingsResponseMessage** response contains the domain settings requested in this call.

```
<xs:element name="GetDomainSettingsRequestMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Request"
        type="tns:GetDomainSettingsRequest"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

The following table lists the child elements of the **GetDomainSettingsRequestMessage** element.

Element name	Type	Description
Request	tns:GetDomainSettingsRequest (section 3.1.4.1.2.1)	Specifies the GetDomainSettings operation request.

3.1.4.1.2.2 tns:GetDomainSettingsResponseMessage Element

The **GetDomainSettingsResponseMessage** element returns to the caller the user's configuration settings that were requested in a **GetDomainSettingsRequestMessage** element, as specified in section [3.1.4.1.2.1](#).

The name-value pairs for each returned domain setting are included in the response. The **GetDomainSettings** operation call returns only the requested configuration settings.

```
<xs:element name="GetDomainSettingsResponseMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Response"
        type="tns:GetDomainSettingsResponse"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

The following table lists the child elements of the **GetDomainSettingsResponseMessage** element.

Element name	Type	Description
Response	tns:GetDomainSettingsResponse (section 3.1.4.1.2.4)	Specifies the response to a GetDomainSettings operation request for a specified domain.

3.1.4.1.2.3 tns:GetDomainSettingsRequest Element

The **GetDomainSettingsRequest** element represents the parameters of a call to a **GetDomainSettings** operation.

```
<xs:element name="GetDomainSettingsRequest"
  type="tns:GetDomainSettingsRequest"
  nillable="true"
/>
```

3.1.4.1.2.4 tns:GetDomainSettingsResponse Element

The **GetDomainSettingsResponse** element represents the response to a **GetDomainSettings** operation for a domain. This response contains the domain settings.

```
<xs:element name="GetDomainSettingsResponse"
  type="tns:GetDomainSettingsResponse"
  nillable="true"
/>
```

3.1.4.1.2.5 tns:ArrayOfDomainResponse Element

The **ArrayOfDomainResponse** element represents an array of **DomainResponse** elements. Each **DomainResponse** element contains the requested settings for the specified user.

```
<xs:element name="ArrayOfDomainResponse"
  type="tns:ArrayOfDomainResponse"
  nillable="true"
/>
```

3.1.4.1.2.6 tns:DomainResponse Element

The **DomainResponse** element contains the requested settings for the specified domain.

```
<xs:element name="DomainResponse"
  type="tns:DomainResponse"
  nillable="true"
/>
```

```
</>
```

3.1.4.1.2.7 tns:DomainSettingErrors Element

The **DomainSettingErrors** element contains error information for settings that could not be returned.

```
<xs:element name="DomainSettingErrors"
  type="tns:DomainSettingErrors"
  nillable="true"
/>
```

3.1.4.1.2.8 tns:DomainSettingError Element

The **DomainSettingError** element represents an error that occurred while retrieving a domain setting in response to a **GetDomainSettings** operation.

```
<xs:element name="DomainSettingError"
  type="tns:DomainSettingError"
  nillable="true"
/>
```

3.1.4.1.2.9 tns:DomainSettings Element

The **DomainSettings** element represents the domain settings that were submitted in a request or returned by an Autodiscover response.

```
<xs:element name="DomainSettings"
  type="tns:DomainSettings"
  nillable="true"
/>
```

3.1.4.1.2.10 tns:DomainSetting Element

The **DomainSetting** element represents the base class for all domain settings that are returned by the **GetDomainSettings** operation.

```
<xs:element name="DomainSetting"
  type="tns:DomainSettings"
  nillable="true"
/>
```

3.1.4.1.2.11 tns:DomainStringSetting Element

The **DomainStringSetting** element represents a domain setting value.


```

<xs:element name="DomainStringSetting"
  type="tns:DomainStringSetting"
  nillable="true"
/>

```

3.1.4.1.3 Complex Types

The following table summarizes the set of XML schema complex type definitions that are specific to the **GetDomainSettings** operation.

Complex type name	Description
GetDomainSettingsRequest	Retrieves the specified setting for a domain.
GetDomainSettingsResponse	Contains an array of domain settings. The domain response contains the configuration settings for the specified domain. This complex type represents the response to a GetDomainSettings operation for a specified domain.
ArrayOfDomainResponse	Represents an array of DomainResponse complex type (section 3.1.4.1.3.4) objects.
DomainResponse	Represents a response to a GetDomainSettings operation for an individual domain. The returned DomainResponse object contains the requested settings for the specified domain.
DomainSettingErrors	Represents a collection of DomainSettingError element (section 3.1.4.1.3.6) objects that contain error information for settings that could not be returned.
DomainSettingError	Represents an error that occurred while retrieving a domain setting in response to a GetDomainSettings operation request.
DomainSettings	Represents a collection of DomainSetting complex type (section 3.1.4.1.3.8) objects, the base class for all domain settings returned by the GetDomainSettings operation.
DomainSetting	Represents the domain settings to be returned by the GetDomainSettings operation.
DomainStringSetting	Represents a domain setting whose value is of type string .

3.1.4.1.3.1 tns:GetDomainSettingsRequest Complex Type

The **GetDomainSettingsRequest** complex type retrieve the specified setting for a domain. The **GetDomainSettingsRequest** complex type contains the domain for which autodiscovery is to be performed and the settings that are to be returned by the server. The **GetDomainSettingsRequest** complex type represents a **GetDomainSettings** operation request. The **GetDomainSettingsRequest** complex type returns a **DomainResponse** complex type, as specified in section [3.1.4.1.3.4](#) object that contains the requested settings for the specified domain.

The **GetDomainSettingsRequest** complex type extends the **AutodiscoverRequest** complex type, as specified in section [3.1.4.4.3.2](#).

```

<xs:complexType name="GetDomainSettingsRequest"
  mixed="false"

```

```

>
<xs:complexContent
  mixed="false"
>
  <xs:extension
    base="tns:AutodiscoverRequest"
  >
    <xs:sequence>
      <xs:element name="Domains"
        type="tns:Domains"
        nillable="true"
      />
      <xs:element name="RequestedSettings"
        type="tns:RequestedSettings"
        nillable="true"
      />
      <xs:element name="RequestedVersion"
        type="tns:ExchangeVersion"
        nillable="true"
      />
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **GetDomainSettingsRequest** complex type.

Element name	Type	Description
Domains	tns:Domains (section 2.2.3.2)	Specifies the domains for which autodiscovery is to be performed.
RequestedSettings	tns:RequestedSettings (section 3.1.4.4.2.8)	Specifies the configuration settings being requested.
RequestedVersion	tns:ExchangeVersion (section 3.1.4.4.4.1)	Specifies the specific server version the provider would like to use. <1>

3.1.4.1.3.2 tns:GetDomainSettingsResponse Complex Type

The **GetDomainSettingsResponse** complex type contains an array of domain settings. The domain response contains the configuration settings for the specified domain. This complex type represents the response to a **GetDomainSettings** operation request for an individual domain.

The **GetDomainSettingsResponse** complex type extends the **AutodiscoverResponse** complex type, as specified in section [3.1.4.4.3.7](#).

```

<xs:complexType name="GetDomainSettingsResponse"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:AutodiscoverResponse"

```

```

    >
    <xs:sequence>
      <xs:element name="DomainResponses"
        type="tns:ArrayOfDomainResponse"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **GetDomainSettingsResponse** complex type.

Element name	Type	Description
DomainResponses	tns:ArrayOfDomainResponse (section 3.1.4.1.2.5)	Specifies an array of DomainResponse elements, a response for each specified domain.

3.1.4.1.3.3 tns:ArrayOfDomainResponse Complex Type

The **ArrayOfDomainResponse** complex type represents an array of **DomainResponse** elements, as specified in section [3.1.4.1.2.6](#). Each **DomainResponse** complex type contains a **DomainSettings** complex type, as specified in section [3.1.4.1.3.7](#), for the specified domain.

```

<xs:complexType name="ArrayOfDomainResponse">
  <xs:sequence>
    <xs:element name="DomainResponse"
      type="tns:DomainResponse"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **ArrayOfDomainResponse** complex type.

Element name	Type	Description
DomainResponse	tns:DomainResponse (section 3.1.4.1.2.6)	Specifies a response message from a GetDomainSettings operation for a specified domain.

3.1.4.1.3.4 tns:DomainResponse Complex Type

The **DomainResponse** complex type represents a response to a **GetDomainSettings** operation for a specified domain. The **DomainResponse** complex type object contains the requested settings for the specified domain. The **DomainResponse** complex type extends the **AutodiscoverResponse** complex type (section [3.1.4.4.3.7](#)).

```

<xs:complexType name="DomainResponse"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:AutodiscoverResponse"
    >
      <xs:sequence>
        <xs:element name="DomainSettingErrors"
          type="tns:DomainSettingErrors"
          nillable="true"
          minOccurs="0"
        />
        <xs:element name="DomainSettings"
          type="tns:DomainSettings"
          nillable="true"
          minOccurs="0"
        />
        <xs:element name="RedirectTarget"
          type="xs:string"
          nillable="true"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **DomainResponse** complex type.

Element name	Type	Description
DomainSettingErrors	tns:DomainSettingErrors (section 3.1.4.1.2.7)	Specifies the error information for settings that could not be returned.
DomainSettings	tns:DomainSettings (section 3.1.4.1.2.9)	Specifies the requested settings for the specified domain.
RedirectTarget	xs:string [XMLSCHEMA2]	Specifies the redirection target (URL or e-mail address).

3.1.4.1.3.5 tns:DomainSettingErrors Complex Type

The **DomainSettingErrors** complex type represents a collection of **DomainSettingError** elements, as specified in section [3.1.4.1.2.7](#), that contain error information for settings that could not be returned.

```

<xs:complexType name="DomainSettingErrors">
  <xs:sequence>
    <xs:element name="DomainSettingError"
      type="tns:DomainSettingError"
      nillable="true"
      minOccurs="0"
    />
  </xs:sequence>
</xs:complexType>

```

```

        maxOccurs="unbounded"
      />
    </xs:sequence>
  </xs:complexType>

```

The following table lists the child elements of the **DomainSettingErrors** complex type.

Element name	Type	Description
DomainSettingError	tns:DomainSettingError (section 3.1.4.1.2.8)	Specifies an error from a GetDomainSettings operation request.

3.1.4.1.3.6 tns:DomainSettingError Complex Type

The **DomainSettingError** complex type represents an error that occurred while retrieving a domain setting in response to a **GetDomainSettings** operation request.

```

<xs:complexType name="DomainSettingError">
  <xs:sequence>
    <xs:element name="ErrorCode"
      type="tns:ErrorCode"
    />
    <xs:element name="ErrorMessage"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="SettingName"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **DomainSettingError** complex type.

Element name	Type	Description
ErrorCode	tns:ErrorCode (section 3.1.4.4.2.11)	Specifies the error code that is associated with the specified request.
ErrorMessage	xs:string [XMLSCHEMA2]	Specifies the error message that is associated with the specified request.
SettingName	xs:string	Specifies the name of the setting.

3.1.4.1.3.7 tns:DomainSettings Complex Type

The **DomainSettings** complex type represents a collection of **DomainSetting** elements, as specified in section [3.1.4.1.2.10](#), the base class for all domain settings returned by the **GetDomainSettings** operation.

```

<xs:complexType name="DomainSettings">
  <xs:sequence>
    <xs:element name="DomainSetting"
      type="tns:DomainSetting"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **DomainSettings** complex type.

Element name	Type	Description
DomainSetting	tns:DomainSetting (section 3.1.4.1.2.10)	Specifies the domain settings returned by the GetDomainSettings operation.

3.1.4.1.3.8 tns:DomainSetting Complex Type

The **DomainSetting** complex type represents the domain settings to be returned by the **GetDomainSettings** operation call.

```

<xs:complexType name="DomainSetting">
  <xs:sequence>
    <xs:element name="Name"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **DomainSetting** complex type.

Element name	Type	Description
Name	xs:string [XMLSCHEMA2]	Specifies the name of the setting to be returned.

The **DomainStringSetting** complex type, as specified in section [3.1.4.1.3.9](#), extends this base type.

3.1.4.1.3.9 tns:DomainStringSetting Complex Type

The **DomainStringSetting** complex type represents a domain setting the value of which is of type **string**. The **DomainStringSetting** complex type extends the **DomainSetting** complex type, as specified in section [3.1.4.1.3.8](#).

```

<xs:complexType name="DomainStringSetting"
  mixed="false"
>
  <xs:complexContent
    mixed="false"

```

```

>
  <xs:extension
    base="tns:DomainSetting"
  >
    <xs:sequence>
      <xs:element name="Value"
        type="xs:string"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **DomainStringSetting** complex type.

Element name	Type	Description
Value	xs:string [XMLSCHEMA2]	Specifies the value of the specified setting.

3.1.4.2 GetFederationInformation

The **GetFederationInformation** operation provides information about the federation status of the specified organization, such as the target **URI** to be used when requesting tokens targeted at this organization, and the other domains that the organization has also federated. When the caller doesn't know the URL to use to communicate with the server that hosts the domain of interest, the caller **MUST** perform one of the following two procedures to reach the server that can provide the information.

To reach the server by using a direct attempt:

1. Compose URLs for Autodiscover endpoints (4), where {0} is the domain of interest, in the following order:

U1: https://autodiscover.{0}/autodiscover/autodiscover.svc

U2: https://{0}/autodiscover/autodiscover.svc

2. Call the **GetFederationInformation** operation at the Autodiscover endpoints (4) U1 and U2. Use the results from the first discovered URL that provides a successful response.
3. Follow HTTP 302 redirects only to HTTPS URLs.

To reach the server by using an indirect attempt:

1. Probe for an HTTP 302 redirect on a non-Secure Sockets Layer (SSL) endpoint (4).
2. Compose the URL for an Autodiscover endpoint (4), where {0} is the domain of interest:

http://autodiscover.{0}/autodiscover/autodiscover.xml

The response **MUST** be an HTTP 302 redirect. The redirect URL in response **MUST** start with https:// and end with /autodiscover/autodiscover.xml.

3. Parse the host element of the URL and compose the following URL, where {0} is the host element of the previous URL:

https://{0}/autodiscover/autodiscover.svc

4. Call the **GetFederationInformation** operation at the Autodiscover endpoint (4).
5. Follow HTTP 302 redirects only to HTTPS URLs.

The following is the WSDL port type specification of the operation.

```
<wsdl:operation name="GetFederationInformation">
  <wsdl:input wsaw:Action="http://schemas.microsoft.com/exchange/2010/
    Autodiscover/Autodiscover/GetFederationInformation"
    name="GetFederationInformationRequestMessage"
    message="tns:GetFederationInformationRequestMessage" />
  <wsdl:output wsaw:Action="http://schemas.microsoft.com/exchange/2010/
    Autodiscover/Autodiscover/GetFederationInformationResponse"
    name="GetFederationInformationResponseMessage"
    message="tns:GetFederationInformationResponseMessage" />
</wsdl:operation>
```

The following is the WSDL binding specification of the operation

```
<wsdl:operation name="GetFederationInformation">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetFederationInformation" style="document" />
  <wsdl:input name="GetFederationInformationRequestMessage">
    <soap:header message="tns:GetFederationInformationRequestMessage_Headers"
      part="RequestedServerVersion" use="literal" />
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output name="GetFederationInformationResponseMessage">
    <soap:header message="tns:GetFederationInformationResponseMessage_Headers"
      part="ServerVersionInfo" use="literal" />
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
```

The protocol client sends a **GetFederationInformationRequestMessage** request WSDL message and the protocol server responds with a **GetFederationInformationResponseMessage** response WSDL message.

3.1.4.2.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to the **GetFederationInformation** operation.

Message name	Description
GetFederationInformationRequestMessage	Retrieves the federation status of an organization.
GetFederationInformationRequestMessage_Headers	Specifies the SOAP header for a GetFederationInformation operation.

Message name	Description
GetFederationInformationResponseMessage	Represents the response to a GetFederationInformation operation for a specified domain.
GetFederationInformationResponseMessage_Headers	Specifies the SOAP header for a GetFederationInformation operation.

3.1.4.2.1.1 tns:GetFederationInformationRequestMessage

The **GetFederationInformationRequestMessage** WSDL message specifies the SOAP message that represents a request to get the federation status of an organization.

```
<wsdl:message name="GetFederationInformationRequestMessage">
  <wsdl:part name="parameters" element="tns:GetFederationInformationRequestMessage" />
</wsdl:message>
```

The **GetFederationInformationRequestMessage** WSDL message is the input message for the SOAP action <http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetFederationInformation>.

The one part of the **GetFederationInformationRequestMessage** message is described in the following table.

Part name	Element/type	Description
parameters	tns:GetFederationInformationRequestMessage element (section 3.1.4.2.2.1)	Specifies the SOAP body the parameters) of a call to a GetFederationInformation operation request.

3.1.4.2.1.2 tns:GetFederationInformationRequestMessage_Headers

The **GetFederationInformationRequestMessage_Headers** WSDL message specifies the SOAP header for a **GetFederationInformation** operation.

```
<wsdl:message name="GetFederationInformationRequestMessage_Headers">
  <wsdl:part name="RequestedServerVersion" element="tns:RequestedServerVersion" />
</wsdl:message>
```

The **GetFederationInformationRequestMessage_Headers** WSDL message contains one part, as described in the following table.

Part name	Element/type	Description
RequestedServerVersion	tns:RequestedServerVersion element (section 3.1.4.4.2.9)	Specifies the server version that the GetFederationInformation operation request targets.

3.1.4.2.1.3 tns:GetFederationInformationResponseMessage

The **GetFederationInformationResponseMessage** WSDL message specifies the SOAP message that represents the server response to a **GetFederationInformation** operation for a specified domain.

```
<wsdl:message name="GetFederationInformationResponseMessage">
  <wsdl:part name="parameters" element="tns:GetFederationInformationResponseMessage" />
</wsdl:message>
```

The **GetFederationInformationResponseMessage** WSDL message is the response message for the SOAP action <http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetFederationInformationResponse>.

The one part of the **GetFederationInformationResponseMessage** WSDL message is described in the following table.

Part name	Element/type	Description
parameters	tns:GetFederationInformationResponseMessage element (section 3.1.4.2.2.2)	Specifies the SOAP body of the response to GetFederationInformation operation

3.1.4.2.1.4 tns:GetFederationInformationResponseMessage_Headers

The **GetFederationInformationResponseMessage_Headers** WSDL message specifies the SOAP header for a **GetFederationInformation** operation response.

```
<wsdl:message name="GetFederationInformationResponseMessage_Headers">
  <wsdl:part name="ServerVersionInfo" element="tns:ServerVersionInfo" />
</wsdl:message>
```

The **GetFederationInformationResponseMessage_Headers** WSDL message contains one part, as described in the following table.

Part name	Element/type	Description
ServerVersionInfo	tns:ServerVersionInfo (section 2.2.3.1)	Contains the server version that processed the GetFederationInformation operation request.

3.1.4.2.2 Elements

The following table summarizes the set of XML schema element definitions that are specific to the **GetFederationInformation** operation.

Element name	Description
GetFederationInformationRequestMessage	Specifies a call to the server to request configuration data for the security token service (STS).
GetFederationInformationResponseMessage	Returns to the caller the specified federation configuration settings that were requested in the GetFederationInformationRequestMessage

Element name	Description
	element.
GetFederationInformationRequest	Represents the parameters of a call to a GetFederationInformation operation.
GetFederationInformationResponse	Represents the response to a GetFederationInformation operation.

3.1.4.2.2.1 tns:GetFederationInformationRequestMessage Element

The **GetFederationInformationRequestMessage** element specifies a call to the server to request configuration data for the security token service (STS). The **GetFederationInformationResponseMessage** element (section [3.1.4.2.2.2](#)) contains the federation settings requested in this call.

```
<xs:element name="GetFederationInformationRequestMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Request"
        type="tns:GetFederationInformationRequest"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

The following table lists the child elements of the **GetFederationInformationRequestMessage** element.

Element name	Type	Description
Request	tns:GetFederationInformationRequest (section 3.1.4.1.2.3)	Specifies the GetFederationInformation operation request.

3.1.4.2.2.2 tns:GetFederationInformationResponseMessage Element

The **GetFederationInformationResponseMessage** element returns to the caller the specified federation configuration settings that were requested in the **GetFederationInformationRequestMessage** element.

The security token service (STS) is specified in the response message.

```
<xs:element name="GetFederationInformationResponseMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Response"
        type="tns:GetFederationInformationResponse"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

```

    />
  </xs:sequence>
</xs:complexType>
</xs:element>

```

The following table lists the child elements of the **GetFederationInformationResponseMessage** element.

Element name	Type	Description
Response	tns:GetFederationInformationResponse (section 3.1.4.2.2.4)	Specifies the response to a GetFederationInformation operation request.

3.1.4.2.2.3 tns:GetFederationInformationRequest Element

The **GetFederationInformationRequest** element represents the parameters of a call to a **GetFederationInformation** operation.

```

<xs:element name="GetFederationInformationRequest"
  type="tns:GetFederationInformationRequest"
  nillable="true"
/>

```

3.1.4.2.2.4 tns:GetFederationInformationResponse Element

The **GetFederationInformationResponse** element represents the response to a **GetFederationInformation** operation. The response contains the federation settings.

```

<xs:element name="GetFederationInformationResponse"
  type="tns:GetFederationInformationResponse"
  nillable="true"
/>

```

3.1.4.2.3 Complex Types

The following table summarizes the set of XML schema complex type definitions that are specific to the **GetFederationInformation** operation.

Complex type name	Description
GetFederationInformationRequest	Retrieves the specified federation settings for a user and contains the federation information (including federated domain names) from an external server. The requester provides the domain name that enables the server to return the federation settings.
GetFederationInformationResponse	Returns to the caller the federation information that was requested in the GetFederationInformationRequest complex

Complex type name	Description
	type.
TokenIssuer	Specifies the URI and endpoint (4) for the security token service (STS).
TokenIssuers	Represents a collection of TokenIssuer complex types to be used in the autodiscovery.

3.1.4.2.3.1 tns:GetFederationInformationRequest Complex Type

The **GetFederationInformationRequest** complex type retrieves the specified federation settings for a user. This complex type contains the federation information (including federated domain names) from an external server. The requester provides the domain name that enables the server to return the federation settings. The **GetFederationInformationRequest** complex type extends the **AutodiscoverRequest** complex type, as specified in section [3.1.4.4.3.2](#).

```
<xs:complexType name="GetFederationInformationRequest"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:AutodiscoverRequest"
    >
      <xs:sequence>
        <xs:element name="Domain"
          type="xs:string"
          nillable="true"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists the child elements of the **GetFederationInformationRequest** complex type.

Element name	Type	Description
Domain	xs:string [XMLSCHEMA2]	Specifies the domain that contains the federation trust.

3.1.4.2.3.2 tns:GetFederationInformationResponse Complex Type

The **GetFederationInformationResponse** complex type returns to the caller the federation information that was requested in the **GetFederationInformationRequest** complex type, as specified in section [3.1.4.2.3.1](#). The **GetFederationInformationResponse** complex type extends the **AutodiscoverResponse** complex type, as specified in section [3.1.4.4.3.7](#).

```
<xs:complexType name="GetFederationInformationResponse"
  mixed="false"
>
```

```

<xs:complexContent
  mixed="false"
>
  <xs:extension
    base="tns:AutodiscoverResponse"
  >
    <xs:sequence>
      <xs:element name="ApplicationUri"
        type="xs:anyURI"
        nillable="true"
        minOccurs="0"
      />
      <xs:element name="TokenIssuers"
        type="tns:TokenIssuers"
        minOccurs="0"
        nillable="true"
      />
      <xs:element name="Domains"
        type="tns:Domains"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **GetFederationInformationResponse** complex type.

Element name	Type	Description
ApplicationUri	xs:anyURI [XMLSCHEMA2]	Specifies the value used by the caller in the AppliesTo/EndpointReference/Address of the Request Security Token message to the security token service (STS).
TokenIssuers	tns:TokenIssuers (section 3.1.4.2.3.4)	Specifies a collection of TokenIssuer complex types (section 3.1.4.2.3.3) to be used in the autodiscovery.
Domains	tns:Domains (section 2.2.3.2)	Specifies the additional returned domains (besides the one specified in the request) that the organization has federated. These are domains that this server uses in the e-mail address claim when it makes requests to other servers outside its organization, including the caller's domain.

3.1.4.2.3.3 tns:TokenIssuer Complex Type

The **TokenIssuer** complex type specifies the URI and endpoint (2) for the security token service (STS).

```

<xs:complexType name="TokenIssuer">
  <xs:sequence>
    <xs:element name="Uri"
      type="xs:anyURI"
      minOccurs="0"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

```

    />
    <xs:element name="Endpoint"
      type="xs:anyURI"
      minOccurs="0"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **TokenIssuer** complex type.

Element name	Type	Description
Uri	xs:anyURI [XMLSCHEMA2]	The URI of the STS that issued the security token.
Endpoint	xs:anyURI	The Web service endpoint (4) URI.

3.1.4.2.3.4 tns:TokenIssuers Complex Type

The **TokenIssuers** complex type represents a collection of **TokenIssuer** complex types, as specified in section [3.1.4.2.3.3](#), to be used in autodiscovery.

```

<xs:complexType name="TokenIssuers">
  <xs:sequence>
    <xs:element name="TokenIssuer"
      type="tns:TokenIssuer"
      minOccurs="0"
      maxOccurs="unbounded"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **TokenIssuers** complex type.

Element name	Type	Description
TokenIssuer	tns:TokenIssuer (section 3.1.4.2.3.3)	The URI and endpoint (4) of the security token service (STS) that issued the security token.

3.1.4.3 GetOrganizationRelationshipSettings

The **GetOrganizationRelationshipSettings** operation retrieves the settings from all matching organization relationships that have at least one domain in the **DomainNames** element that maps to at least one e-mail address claim in the token. The **GetOrganizationRelationshipSetting** operation is for internal use only. This operation is not used by clients. [<2>](#)

The following is the WSDL port type specification of the operation.

```

<wsdl:operation name="GetOrganizationRelationshipSettings">
  <wsdl:input wsaw:Action="http://schemas.microsoft.com/exchange/2010/

```

```

    Autodiscover/Autodiscover/GetOrganizationRelationshipSettings"
    name="GetOrganizationRelationshipSettingsRequestMessage"
    message="tns:GetOrganizationRelationshipSettingsRequestMessage" />
<wsdl:output wsaw:Action="http://schemas.microsoft.com/exchange/2010/Autodiscover/
    Autodiscover/GetOrganizationRelationshipSettingsResponse"
    name="GetOrganizationRelationshipSettingsResponseMessage"
    message="tns:GetOrganizationRelationshipSettingsResponseMessage" />
</wsdl:operation>

```

The following is the WSDL binding specification of the operation

```

<wsdl:operation name="GetOrganizationRelationshipSettings">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetOrganizat
    ionRelationshipSettings" style="document" />
  <wsdl:input name="GetOrganizationRelationshipSettingsRequestMessage">
    <soap:header message="tns:GetOrganizationRelationshipSettingsRequestMessage_Headers"
    part="RequestedServerVersion" use="literal" />
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output name="GetOrganizationRelationshipSettingsResponseMessage">
    <soap:header message="tns:GetOrganizationRelationshipSettingsResponseMessage_Headers"
    part="ServerVersionInfo" use="literal" />
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>

```

The protocol client sends a **GetOrganizationRelationshipSettingsRequestMessage** request WSDL message and the protocol server responds with a **GetOrganizationRelationshipSettingsResponseMessage** response WSDL message.

3.1.4.3.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to the **GetOrganizationRelationshipSettings** operation.

Message name	Description
GetOrganizationRelationshipSettingsRequestMessage	Retrieves the organization relationship settings.
GetOrganizationRelationshipSettingsRequestMessage_Headers	Specifies the SOAP header for a GetOrganizationRelationshipSettings operation.
GetOrganizationRelationshipSettingsResponseMessage	Represents a response to a GetOrganizationRelationshipSettings operation.
GetOrganizationRelationshipSettingsResponseMessage_Headers	Specifies the SOAP header for a GetOrganizationRelationshipSettingsResponse operation.

3.1.4.3.1.1 tns:GetOrganizationRelationshipSettingsRequestMessage

The **GetOrganizationRelationshipSettingsRequestMessage** WSDL message specifies the SOAP message that represents a request to get the organization relationship settings. <3>

```
<wsdl:message name="GetOrganizationRelationshipSettingsRequestMessage">
  <wsdl:part name="parameters"
    element="tns:GetOrganizationRelationshipSettingsRequestMessage" />
</wsdl:message>
```

The **GetOrganizationRelationshipSettingsRequestMessage** WSDL message is the input message for the SOAP action <http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetOrganizationRelationshipSettings>.

The one part of the **GetOrganizationRelationshipSettingsRequestMessage** message is described in the following table.

Part name	Element/type	Description
parameters	tns:GetOrganizationRelationshipSettingsRequestMessage element (section 3.1.4.3.2.1)	Specifies the SOAP Body (the parameters) of a call to a GetOrganizationRelationshipSettings operation request.

3.1.4.3.1.2 tns:GetOrganizationRelationshipSettingsRequestMessage_Headers

The **GetOrganizationRelationshipSettingsRequestMessage_Headers** WSDL message specifies the SOAP header for the **GetOrganizationRelationshipSettings** operation. <4>

```
<wsdl:message name="GetOrganizationRelationshipSettingsRequestMessage_Headers">
  <wsdl:part name="RequestedServerVersion" element="tns:RequestedServerVersion" />
</wsdl:message>
```

The **GetOrganizationRelationshipSettingsRequestMessage_Headers** WSDL message contains one part, as described in the following table.

Part name	Element/type	Description
RequestedServerVersion	tns:RequestedServerVersion (section 3.1.4.4.2.9)	Specifies the server version that the GetOrganizationRelationshipSettings operation request targets.

3.1.4.3.1.3 tns:GetOrganizationRelationshipSettingsResponseMessage

The **GetOrganizationRelationshipSettingsResponseMessage** WSDL message specifies the SOAP message that represents the server response to the **GetOrganizationRelationshipSettings** operation. <5>

```
<wsdl:message name="GetOrganizationRelationshipSettingsResponseMessage">
  <wsdl:part name="parameters"
    element="tns:GetOrganizationRelationshipSettingsResponseMessage" />
</wsdl:message>
```

The **GetOrganizationRelationshipSettingsResponseMessage** WSDL message is the response message for the SOAP action <http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetOrganizationRelationshipSettingsResponse>.

The one part of the **GetOrganizationRelationshipSettingsResponseMessage** WSDL message is described in the following table.

Part name	Element/type	Description
parameters	tns:GetOrganizationRelationshipSettingsResponseMessage element (section 3.1.4.3.2.3).	Specifies the SOAP body of the response to a GetOrganizationRelationshipSettings operation.

3.1.4.3.1.4 tns:GetOrganizationRelationshipSettingsResponseMessage_Headers

The **GetOrganizationRelationshipSettingsResponseMessage_Headers** WSDL message specifies the SOAP header for a **GetOrganizationRelationshipSettings** operation (section [3.1.4.3](#)) response. [<6>](#)

```
<wsdl:message name="GetOrganizationRelationshipSettingsResponseMessage_Headers">
  <wsdl:part name="ServerVersionInfo" element="tns:ServerVersionInfo" />
</wsdl:message>
```

The **GetOrganizationRelationshipSettingsResponseMessage_Headers** WSDL message contains one part, as described in the following table.

Part name	Element/type	Description
ServerVersionInfo	tns:ServerVersionInfo (section 2.2.3.1)	Contains the server version that processed the GetOrganizationRelationshipSettings operation request.

3.1.4.3.2 Elements

The following table summarizes the set of XML schema element definitions that are specific to the **GetOrganizationRelationshipSettings** operation.

Element name	Description
GetOrganizationRelationshipSettingsRequestMessage	Specifies a call to the server to request the organization relationship settings for the specified user. The GetOrganizationRelationshipSettingsResponseMessage response message contains the organizational settings requested in this call.
GetOrganizationRelationshipSettingsRequest	Represents the parameters of a call to the GetOrganizationRelationshipSettings operation.
GetOrganizationRelationshipSettingsResponseMessage	Returns to the caller the organization relationship settings that were requested in the GetOrganizationRelationshipSettingsRequestMessage

Element name	Description
	ssage element call.
GetOrganizationRelationshipSettingsResponse	Represents the response to the GetOrganizationRelationshipSettings operation request.
OrganizationRelationshipSettingsCollection	Represents a list of organization relationships that match the request.
OrganizationRelationshipSettings	Represents the organizational relationship returned by the GetOrganizationalRelationshipSettings operation request.

3.1.4.3.2.1 tns:GetOrganizationRelationshipSettingsRequestMessage Element

The **GetOrganizationRelationshipSettingsRequestMessage** element specifies a call to the server to request the organization relationship settings for the specified user. <7> The **GetOrganizationRelationshipSettingsResponseMessage** element, as specified in section [3.1.4.3.2.3](#), response contains the organizational settings requested in this call.

```
<xs:element name="GetOrganizationRelationshipSettingsRequestMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Request"
        type="tns:GetOrganizationRelationshipSettingsRequest"
        minOccurs="0"
        nillable="true"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

The following table lists the child elements of the **GetOrganizationRelationshipSettingsRequestMessage** element.

Element name	Type	Description
Request	tns:GetOrganizationRelationshipSettingsRequest (section 3.1.4.3.2.2)	Specifies the GetOrganizationRelationshipSettings operation request.

3.1.4.3.2.2 tns:GetOrganizationRelationshipSettingsRequest Element

The **GetOrganizationRelationshipSettingsRequest** element represents the parameters of a call to the **GetOrganizationRelationshipSettings** operation. <8>

```
<xs:element name="GetOrganizationRelationshipSettingsRequest"
  type="tns:GetOrganizationRelationshipSettingsRequest"
  nillable="true"
/>
```

3.1.4.3.2.3 tns:GetOrganizationRelationshipSettingsResponseMessage Element

The **GetOrganizationRelationshipSettingsResponseMessage** element returns to the caller the organization relationship settings that were requested in the **GetOrganizationRelationshipSettingsRequestMessage** element, as specified in section [3.1.4.3.2.1](#), call [<9>](#)

```
<xs:element name="GetOrganizationRelationshipSettingsResponseMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Response"
        type="tns:GetOrganizationRelationshipSettingsResponse"
        minOccurs="0"
        nillable="true"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

The following table lists the child elements of the **GetOrganizationRelationshipSettingsResponseMessage** element.

Element name	Type	Description
Response	tns:GetOrganizationRelationshipSettingsResponse (section 3.1.4.3.2.4)	Specifies the response to a GetOrganizationRelationshipSettings operation request.

3.1.4.3.2.4 tns:GetOrganizationRelationshipSettingsResponse Element

The **GetOrganizationRelationshipSettingsResponse** element represents the response to the **GetOrganizationRelationshipSettings** operation (section [3.1.4.3](#)). [<10>](#)

```
<xs:element name="GetOrganizationRelationshipSettingsResponse"
  type="tns:GetOrganizationRelationshipSettingsResponse"
  nillable="true"
/>
```

3.1.4.3.2.5 tns:OrganizationRelationshipSettingsCollection Element

The **OrganizationRelationshipSettingsCollection** element represents a list of organization relationships that match the query. [<11>](#)

```
<xs:element name="OrganizationRelationshipSettingsCollection"
  type="tns:OrganizationRelationshipSettingsCollection"
  nillable="true"
/>
```

3.1.4.3.2.6 tns:OrganizationRelationshipSettings Element

The **OrganizationRelationshipSettings** element represents the organizational relationship that is returned by the **GetOrganizationalRelationshipSettings** operation request.

```
<xs:element name="OrganizationRelationshipSettings"
  type="tns:OrganizationRelationshipSettings"
  nillable="true"
/>
```

3.1.4.3.3 Complex Types

The following table summarizes the XML schema complex type definitions that are specific to the **GetOrganizationRelationshipSettings** operation operation.

Complex type name	Description
GetOrganizationRelationshipSettingsRequest	Retrieves the specified settings for the organization relationship and contains the parameters of a call to the GetOrganizationRelationshipSettings operation (section 3.1.4.3).
GetOrganizationRelationshipSettingsResponse	Contains a response to a call to a GetOrganizationRelationshipSettings operation (section 3.1.4.3).
OrganizationRelationshipSettingsCollection	Represents a list of organization relationships that match the query.
OrganizationRelationshipSettings	Represents a list of organization relationships for the specified organization and SMTP addresses.

3.1.4.3.3.1 tns:GetOrganizationRelationshipSettingsRequest Complex Type

The **GetOrganizationRelationshipSettingsRequest** complex type represents the parameters of a call to the **GetOrganizationRelationshipSettings** operation. The **GetOrganizationRelationshipSettingsRequest** complex type returns a **GetOrganizationRelationshipSettingsResponse** complex type, as specified in section [3.1.4.3.3.2](#), object that contains the requested domain settings. [<12>](#) The **GetOrganizationRelationshipSettingsRequest** complex type extends the **AutodiscoverRequest** complex type, as specified in section [3.1.4.4.3.2](#).

```
<xs:complexType name="GetOrganizationRelationshipSettingsRequest">
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:AutodiscoverRequest"
    >
      <xs:sequence>
        <xs:element name="Domains"
          type="tns:Domains"
          nillable="true"
        />
      </xs:sequence>
    </xs:extension>
```

```

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

```

The following table lists the child elements of the **GetOrganizationRelationshipSettingsRequest** complex type.

Element name	Type	Description
Domains	tns:Domains (section 2.2.3.2)	Specifies the domains for which the Autodiscover service is to be run and that are to be used in a query.

3.1.4.3.3.2 tns:GetOrganizationRelationshipSettingsResponse Complex Type

The **GetOrganizationRelationshipSettingsResponse** complex type represents a response to a call to the **GetOrganizationRelationshipSettings** operation. [<13>](#) The **GetOrganizationRelationshipSettingsResponse** complex type extends the **AutodiscoverResponse** complex type, as specified in section [3.1.4.4.3.7](#).

```

<xs:complexType name="GetOrganizationRelationshipSettingsResponse">
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:AutodiscoverResponse"
    >
      <xs:sequence>
        <xs:element name="OrganizationRelationshipSettingsCollection"
          type="tns:OrganizationRelationshipSettingsCollection"
          minOccurs="0"
          nillable="true"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **GetOrganizationRelationshipSettingsResponse** complex type.

Element name	Type	Description
OrganizationRelationshipSettingsCollection	tns:OrganizationRelationshipSettingsCollection (section 3.1.4.1.3.5)	Specifies a list of organization relationships that match the query.

3.1.4.3.3 tns:OrganizationRelationshipSettingsCollection Complex Type

The **OrganizationRelationshipSettingsCollection** complex type represents a list of organization relationships that match the query. [<14>](#)

```
<xs:complexType name="OrganizationRelationshipSettingsCollection">
  <xs:sequence>
    <xs:element name="OrganizationRelationshipSettings"
      type="tns:OrganizationRelationshipSettings"
      minOccurs="0"
      maxOccurs="unbounded"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **OrganizationRelationshipSettingsCollection** complex type.

Element name	Type	Description
OrganizationRelationshipSettings	tns:OrganizationRelationshipSettings (section 3.1.4.3.2.5)	Represents the organization relationships.

3.1.4.3.3.4 tns:OrganizationRelationshipSettings Complex Type

The **OrganizationRelationshipSettings** complex type represents the list of organization relationships for the specified organization and SMTP addresses. [<15>](#)

```
<xs:complexType name="OrganizationRelationshipSettings">
  <xs:sequence>
    <xs:element name="DeliveryReportEnabled"
      type="xs:boolean"
    />
    <xs:element name="DomainNames"
      type="tns:Domains"
      nillable="true"
    />
    <xs:element name="FreeBusyAccessEnabled"
      type="xs:boolean"
    />
    <xs:element name="FreeBusyAccessLevel"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="MailTipsAccessEnabled"
      type="xs:boolean"
    />
    <xs:element name="MailTipsAccessLevel"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="MailboxMoveEnabled"
      type="xs:boolean"
    />
  </xs:sequence>
</xs:complexType>
```

```

    />
    <xs:element name="Name"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="TargetApplicationUri"
      type="xs:anyURI"
      nillable="true"
    />
    <xs:element name="TargetAutodiscoverEpr"
      type="xs:anyURI"
      nillable="true"
    />
    <xs:element name="TargetSharingEpr"
      type="xs:anyURI"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **OrganizationRelationshipSettings** complex type.

Element name	Type	Description
DeliveryReportEnabled	xs:boolean [XMLSCHEMA2]	Specifies the DeliveryReportEnabled flag.
DomainNames	tns:Domains (section 2.2.3.2)	Specifies the domain names collection.
FreeBusyAccessEnabled	xs:boolean	Specifies the FreeBusyAccessEnabled flag.
FreeBusyAccessLevel	xs:string [XMLSCHEMA2]	Specifies the FreeBusyAccessLevel property.
MailTipsAccessEnabled	xs:boolean	Specifies the MailTipsAccessEnabled flag.
MailTipsAccessLevel	xs:string	Specifies the MailTipsAccessLevel property.
MailboxMoveEnabled	xs:boolean	Specifies the MailboxMoveEnabled flag.
Name	xs:string	Specifies the name of the organization relationship.
TargetApplicationUri	xs:anyURI [XMLSCHEMA2]	Specifies the target application URI.
TargetAutodiscoverEpr	xs:anyURI	Specifies the TargetAutodiscoverEpr property.
TargetSharingEpr	xs:anyURI	Specifies the TargetSharingEpr property.

3.1.4.4 GetUserSettings

The **GetUserSettings** operation retrieves the specified settings for a specified user.

The following is the WSDL port type specification of the operation.


```

<wsdl:operation name="GetUserSettings">
  <wsdl:input wsaw:Action="http://schemas.microsoft.com/exchange/2010/
    Autodiscover/Autodiscover/GetUserSettings"
    name="GetUserSettingsRequestMessage"
    message="tns:GetUserSettingsRequestMessage" />
  <wsdl:output wsaw:Action="http://schemas.microsoft.com/exchange/2010/
    Autodiscover/Autodiscover/GetUserSettingsResponse"
    name="GetUserSettingsResponseMessage"
    message="tns:GetUserSettingsResponseMessage" />
</wsdl:operation>

```

The following is the WSDL binding specification of the operation

```

<wsdl:operation name="GetUserSettings">
  <soap:operation
    soapAction="http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetUserSetti
    ngs" style="document" />
  <wsdl:input name="GetUserSettingsRequestMessage">
    <soap:header message="tns:GetUserSettingsRequestMessage_Headers"
    part="RequestedServerVersion" use="literal" />
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output name="GetUserSettingsResponseMessage">
    <soap:header message="tns:GetUserSettingsResponseMessage_Headers"
    part="ServerVersionInfo" use="literal" />
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>

```

The protocol client sends a **GetUserSettingsRequestMessage** request WSDL message and the protocol server responds with a **GetUserSettingsResponseMessage** response WSDL message.

The **GetUserSettings** operation enables the client to request specific user configuration settings by passing in the user names as simple strings, and to receive results as a simple dictionary of string name/value pairs.

3.1.4.4.1 Messages

The following table summarizes the set of WSDL message definitions that are specific to the **GetUserSettings** operation.

Message name	Description
GetUserSettingsRequestMessage	Retrieves the specified settings for a particular user.
GetUserSettingsRequestMessage_Headers	Specifies the SOAP header for a GetUserSettings operation request.
GetUserSettingsResponseMessage	Represents the response to a GetUserSettings operation call for a specified user.
GetUserSettingsResponseMessage_Headers	Specifies the SOAP header for a GetUserSettings operation response.

3.1.4.4.1.1 tns:GetUserSettingsRequestMessage

The **GetUserSettingsRequestMessage** WSDL message specifies the SOAP message that represents a request to get the specified settings for a particular user.

```
<wsdl:message name="GetUserSettingsRequestMessage">
  <wsdl:part name="parameters" element="tns:GetUserSettingsRequestMessage" />
</wsdl:message>
```

The **GetUserSettingsRequestMessage** WSDL message is the input message for the SOAP action <http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetUserSettings>.

The one part of the **GetUserSettingsRequestMessage** message is described in the following table.

Part name	Element/type	Description
parameters	tns:GetUserSettingsRequestMessage element (section 3.1.4.4.2.1)	Specifies the SOAP body (the parameters) of a call to a GetUserSettings operation request.

3.1.4.4.1.2 tns:GetUserSettingsRequestMessage_Headers

The **GetUserSettingsRequestMessage_Headers** WSDL message specifies the SOAP header for a **GetUserSettings** operation.

```
<wsdl:message name="GetUserSettingsRequestMessage_Headers">
  <wsdl:part name="RequestedServerVersion" element="tns:RequestedServerVersion" />
</wsdl:message>
```

The **GetUserSettingsRequestMessage_Headers** WSDL message contains one part, as described in the following table.

Part name	Element/type	Description
RequestedServerVersion	tns:RequestedServerVersion element (section 3.1.4.4.2.9)	Specifies the server version that the GetUserSettings operation request targets.

3.1.4.4.1.3 tns:GetUserSettingsResponseMessage

The **GetUserSettingsResponseMessage** WSDL message specifies the SOAP message that represents the server response to a **GetUserSettings** operation for a specified user.

```
<wsdl:message name="GetUserSettingsResponseMessage">
  <wsdl:part name="parameters" element="tns:GetUserSettingsResponseMessage" />
</wsdl:message>
```

The **GetUserSettingsResponseMessage** WSDL message is the response message for the SOAP action <http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/GetUserSettingsResponse>.

The one part of the **GetUserSettingsResponseMessage** WSDL message is described in the following table.

Part name	Element/type	Description
parameters	tns:GetUserSettingsResponseMessage element (section 3.1.4.4.2.2)	Specifies the response to a GetUserSettings operation.

3.1.4.4.1.4 tns:GetUserSettingsResponseMessage_Headers

The **GetUserSettingsResponseMessage_Headers** WSDL message specifies the SOAP header for a **GetUserSettings** operation response.

```
<wsdl:message name="GetUserSettingsResponseMessage_Headers">
  <wsdl:part name="ServerVersionInfo" element="tns:ServerVersionInfo" />
</wsdl:message>
```

The **GetUserSettingsResponseMessage_Headers** WSDL message contains one part, as described in the following table.

Part name	Element/type	Description
ServerVersionInfo	tns:ServerVersionInfo (section 2.2.3.1)	Contains the server version that processed the GetUserSettings operation request.

3.1.4.4.2 Elements

The following table summarizes the set of XML schema element definitions that are specific to the **GetUserSettings** operation.

Element name	Description
GetUserSettingsRequestMessage	Specifies a call to the server, specifying the configuration settings to be returned along with the e-mail address of the user whose settings are to be retrieved.
GetUserSettingsResponseMessage	Returns to the caller the user's configuration settings that were requested in the GetUserSettingsRequestMessage element call.
GetUserSettingsRequest	Represents the parameters of a call to a GetUserSettings operation.
GetUserSettingsResponse	Represents the response to a GetUserSettings operation for a specified user.
AutodiscoverRequest	Represents the base element of all Autodiscover requests.
Users	Represents a list of User elements.
User	Represents the user.
RequestedSettings	Represents the configuration settings to be returned in the autodiscovery.
RequestedServerVersion	Specifies the server version that an Autodiscover operation targets.
AutodiscoverResponse	Represents the base class for all responses returned by the

Element name	Description
	Autodiscover service.
ErrorCode	Defines the error codes that can be returned by the Autodiscover service.
ArrayOfUserResponse	Contains an array of UserResponse elements.
UserResponse	Contains the requested settings for the specified user.
UserSettingErrors	Contains error information for settings that could not be returned.
UserSettingError	Represents an error that occurred while retrieving a user setting in response to a GetUserSettings operation request.
UserSettings	Represents the base class for all user settings returned by the GetUserSettings operation request.
UserSetting	Represents the base class for all user settings returned by the GetUserSettings operation.
StringSetting	Represents a user setting the value.
WebClientUrlCollectionSetting	Represents a user setting whose value is a collection of Web client URLs.
WebClientUrls	Represents the internal and external URLs of a Web client.
WebClientUrl	Represents a URL of a Web client.
ProtocolConnectionCollectionSetting	Represents a collection of server protocol connection settings.
ProtocolConnections	Represents a collection of protocol connections.
ProtocolConnection	Represents the e-mail protocol connection settings for POP3, IMAP4, and SMTP.
AlternateMailboxCollectionSetting	Represents a collection of alternate mailbox settings.
AlternateMailboxes	Represents a collection of alternate mailboxes.
AlternateMailbox	Represents an alternate mailbox, such as an archived mailbox.

3.1.4.4.2.1 tns:GetUserSettingsRequestMessage Element

The **GetUserSettingsRequestMessage** element prepares a call to the server, specifying the configuration settings to be returned along with the e-mail address of the user whose settings are to be retrieved. The **GetUserSettingsResponseMessage** element, as specified in section [3.1.4.4.2.2](#), response contains the settings requested in this call.

```
<xs:element name="GetUserSettingsRequestMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Request"
        type="tns:GetUserSettingsRequest"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

```

    </xs:sequence>
  </xs:complexType>
</xs:element>

```

The following table lists the child elements of the **GetUserSettingsRequestMessage** element.

Element name	Type	Description
Request	tns:GetUserSettingsRequest (section 3.1.4.4.2.3)	Specifies the GetUserSettings operation request.

3.1.4.4.2.2 tns:GetUserSettingsResponseMessage Element

The **GetUserSettingsResponseMessage** element returns to the caller the user's configuration settings that were requested in the **GetUserSettingsRequestMessage** element, as specified in section [3.1.4.4.2.1](#).

The name/value pair for each returned user setting is included in the response. The **GetUserSettings** element, as specified in section [3.1.4.4](#), returns only the requested configuration settings if they exist on the server.

```

<xs:element name="GetUserSettingsResponseMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Response"
        type="tns:GetUserSettingsResponse"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

The following table lists the child elements of the **GetUserSettingsResponseMessage** element.

Element name	Type	Description
Response	tns:GetUserSettingsResponse (section 3.1.4.4.2.4)	Specifies the response to a GetUserSettings operation request.

3.1.4.4.2.3 tns:GetUserSettingsRequest Element

The **GetUserSettingsRequest** element represents the parameters of a call to a **GetUserSettings** operation.

```

<xs:element name="GetUserSettingsRequest"
  type="tns:GetUserSettingsRequest"
  nillable="true"
/>

```

3.1.4.4.2.4 tns:GetUserSettingsResponse Element

The **GetUserSettingsResponse** element represents the response to the **GetUserSettings** operation for a specified user.

```
<xs:element name="GetUserSettingsResponse"
  type="tns:GetUserSettingsResponse"
  nillable="true"
/>
```

3.1.4.4.2.5 tns:AutodiscoverRequest Element

The **AutodiscoverRequest** element represents the base element of all Autodiscover requests.

```
<xs:element name="AutodiscoverRequest"
  type="tns:AutodiscoverRequest"
  nillable="true"
/>
```

3.1.4.4.2.6 tns:Users Element

The **Users** element represents a list of **User** elements, as specified in section [3.1.4.4.2.7](#), each of which includes an e-mail address.

```
<xs:element name="Users"
  type="tns:Users"
  nillable="true"
/>
```

3.1.4.4.2.7 tns:User Element

The **User** element represents the user.

```
<xs:element name="User"
  type="tns:User"
  nillable="true"
/>
```

3.1.4.4.2.8 tns:RequestedSettings Element

The **RequestedSettings** element represents the configuration settings to be returned in an autodiscovery.

```
<xs:element name="RequestedSettings"
```

```
    type="tns:RequestedSettings"
    nillable="true"
  />
```

3.1.4.4.2.9 tns:RequestedServerVersion Element

The **RequestedServerVersion** element specifies the server version that an Autodiscover method call targets.

```
<xs:element name="RequestedServerVersion">
  <xs:simpleType>
    <xs:restriction
      base="tns:ExchangeVersion"
    />
  </xs:simpleType>
</xs:element>
```

3.1.4.4.2.10 tns:AutodiscoverResponse Element

The **AutodiscoverResponse** element represents the base class for all responses returned by the Autodiscover service. The **AutodiscoverResponse** element includes the **ErrorCode** simple type, as specified in section [3.1.4.4.4.2](#), and the **ErrorMessage** element.

```
<xs:element name="AutodiscoverResponse"
  type="tns:AutodiscoverResponse"
  nillable="true"
/>
```

3.1.4.4.2.11 tns:ErrorCode Element

The **ErrorCode** element defines the error codes that can be returned by the Autodiscover service.

```
<xs:element name="ErrorCode"
  type="tns:ErrorCode"
  nillable="true"
/>
```

3.1.4.4.2.12 tns:ArrayOfUserResponse Element

The **ArrayOfUserResponse** element contains an array of **UserResponse** elements, as specified in section [3.1.4.4.2.13](#), each of which contains the requested settings for a specified user.

```
<xs:element name="ArrayOfUserResponse"
  type="tns:ArrayOfUserResponse"
  nillable="true"
/>
```

3.1.4.4.2.13 tns:UserResponse Element

The **UserResponse** element contains the requested settings for a specified user.

```
<xs:element name="UserResponse"
  type="tns:UserResponse"
  nillable="true"
/>
```

3.1.4.4.2.14 tns:UserSettingErrors Element

The **UserSettingErrors** element contains error information for settings that could not be returned.

```
<xs:element name="UserSettingErrors"
  type="tns:UserSettingErrors"
  nillable="true"
/>
```

3.1.4.4.2.15 tns:UserSettingError Element

The **UserSettingError** element represents an error that occurred while retrieving a user setting in response to a **GetUserSettings** operation request.

```
<xs:element name="UserSettingError"
  type="tns:UserSettingError"
  nillable="true"
/>
```

3.1.4.4.2.16 tns:UserSettings Element

The **UserSettings** element represents a collection of **UserSetting** elements, as specified in section [3.1.4.4.2.17](#), that are returned by the **GetUserSettings** operation request.

```
<xs:element name="UserSettings"
  type="tns:UserSettings"
  nillable="true"
/>
```

3.1.4.4.2.17 tns:UserSetting Element

The **UserSetting** element represents the user setting that is returned by the **GetUserSettings** operation.

```
<xs:element name="UserSetting"
  type="tns:UserSetting"
  nillable="true"
/>
```


3.1.4.4.2.18 tns:StringSetting Element

The **StringSetting** element represents a user setting the value for which is of type **string**.

```
<xs:element name="StringSetting"
  type="tns:StringSetting"
  nillable="true"
/>
```

3.1.4.4.2.19 tns:WebClientUrlCollectionSetting Element

The **WebClientUrlCollectionSetting** element represents a user setting the value for which is a collection of Web client URLs.

```
<xs:element name="WebClientUrlCollectionSetting"
  type="tns:WebClientUrlCollectionSetting"
  nillable="true"
/>
```

3.1.4.4.2.20 tns:WebClientUrls Element

The **WebClientUrls** element represents the internal and external URLs of a Web client.

```
<xs:element name="WebClientUrls"
  type="tns:WebClientUrls"
  nillable="true"
/>
```

3.1.4.4.2.21 tns:WebClientUrl Element

The **WebClientUrl** element represents a URL of a Web client.

```
<xs:element name="WebClientUrl"
  type="tns:WebClientUrl"
  nillable="true"
/>
```

3.1.4.4.2.22 tns:ProtocolConnectionCollectionSetting Element

The **ProtocolConnectionCollectionSetting** element represents a collection of server protocol connection settings.

```
<xs:element name="ProtocolConnectionCollectionSetting"
  type="tns:ProtocolConnectionCollectionSetting"
```

```
    nillable="true"  
  />
```

3.1.4.4.2.23 tns:ProtocolConnections Element

The **ProtocolConnections** element represents the collection of protocol connections.

```
<xs:element name="ProtocolConnections"  
  type="tns:ProtocolConnections"  
  nillable="true"  
 />
```

3.1.4.4.2.24 tns:ProtocolConnection Element

The **ProtocolConnection** element represents the e-mail protocol connection settings for POP3, IMAP4, and SMTP.

```
<xs:element name="ProtocolConnection"  
  type="tns:ProtocolConnection"  
  nillable="true"  
 />
```

3.1.4.4.2.25 tns:AlternateMailboxCollectionSetting Element

The **AlternateMailboxCollectionSetting** element represents a collection of alternate mailbox settings.

```
<xs:element name="AlternateMailboxCollectionSetting"  
  type="tns:AlternateMailboxCollectionSetting"  
  nillable="true"  
 />
```

3.1.4.4.2.26 tns:AlternateMailboxes Element

The **AlternateMailboxes** element represents a collection of alternate mailboxes.

```
<xs:element name="AlternateMailboxes"  
  type="tns:AlternateMailboxes"  
  nillable="true"  
 />
```

3.1.4.4.2.27 tns:AlternateMailbox Element

The **AlternateMailbox** element represents an alternate mailbox, such as an archived mailbox.

```

<xs:element name="AlternateMailbox"
  type="tns:AlternateMailbox"
  nillable="true"
/>

```

An alternate mailbox corresponds to an external mailbox of the user's, such as a personal POP3/IMAP4 account, a Webmail account, or an archived account.

3.1.4.4.3 Complex Types

The following table summarizes the set of XML schema complex type definitions that are specific to the **GetUserSettings** operation.

Complex type name	Description
GetUserSettingsRequest	Specifies a request message for the GetUserSettings operation. Retrieves the specified settings for one or more users.
AutodiscoverRequest	Represents the base class for all requests made to the Autodiscover service.
Users	Represents a collection of User elements denoting users whose settings are to be retrieved.
User	Represents a user whose settings are to be retrieved. The user is identified by SMTP address or legacy DN.
RequestedSettings	Specifies the configuration settings to be returned by the server for the GetUserSettings operation.
GetUserSettingsResponse	Represents a response that contains an array of user responses.
AutodiscoverResponse	Represents the base class for all responses returned by the Autodiscover service.
UserResponse	Represents a response to a GetUserSettings operation for a specified user. The server returns only the configuration settings requested by the client.
UserSettingErrors	Represents a collection of UserSettingError elements that contains error information for settings that could not be returned.
ArrayOfUserResponse	Represents an array of UserResponse elements that contains the responses for each specified user.
UserSettingError	Represents a user setting error that resulted from a GetUserSettings operation request.
UserSettings	Represents a collection of UserSetting elements (section 3.1.4.4.2.17) all user settings that are returned by the GetUserSettings operation.
UserSetting	Represents the user settings to be returned by the GetUserSettings operation.

Complex type name	Description
StringSetting	Represents a user setting value.
WebClientUrlCollectionSetting	Represents a collection of WebClientUrls elements.
WebClientUrls	Represents a collection of WebClientUrl elements that denote the server's Web clients.
WebClientUrl	Represents the URL of the server's Web client.
ProtocolConnectionCollectionSetting	Represents a collection of ProtocolConnection elements.
ProtocolConnections	Represents a collection of ProtocolConnection elements that denote the internal and external protocol connections for the server's Web client.
ProtocolConnection	Represents the e-mail protocol connection settings for POP3, IMAP4, and SMTP protocols.
AlternateMailboxCollectionSetting	Represents a collection of AlternateMailboxes elements.
AlternateMailboxes	Represents a collection of AlternateMailbox elements.
AlternateMailbox	Represents an alternate mailbox.

3.1.4.4.3.1 tns:GetUserSettingsRequest Complex Type

The **GetUserSettingsRequest** complex type retrieves the specified settings for one or more users. This complex type contains the e-mail addresses for the specified users, and for each such user it returns a **UserResponse** complex type, as specified in section [3.1.4.4.3.8](#), object that contains the requested settings. The **GetUserSettingsRequest** complex type extends the **AutodiscoverRequest** complex type, as specified in section [3.1.4.4.3.2](#).

```

<xs:complexType name="GetUserSettingsRequest"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:AutodiscoverRequest"
    >
      <xs:sequence>
        <xs:element name="Users"
          type="tns:Users"
          nillable="true"
        />
        <xs:element name="RequestedSettings"
          type="tns:RequestedSettings"
          nillable="true"
        />
        <xs:element name="RequestedVersion"
          type="tns:ExchangeVersion"
          nillable="true"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexType>

```

```

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

```

The following table lists the child elements of the **GetUserSettingsRequest** complex type.

Element name	Type	Description
Users	tns:Users (section 3.1.4.4.2.6)	Specifies the e-mail addresses of the users whose settings are to be retrieved.
RequestedSettings	tns:RequestedSettings (section 3.1.4.4.2.8)	Specifies the configuration settings being requested.
RequestedVersion	tns:ExchangeVersion (section 3.1.4.4.4.1)	Specifies the specific server version that the provider would prefer to use.

3.1.4.4.3.2 tns:AutodiscoverRequest Complex Type

The **AutodiscoverRequest** complex type represents the base class for all requests made to the Autodiscover service.

```

<xs:complexType name="AutodiscoverRequest">
  <xs:sequence />
</xs:complexType>

```

The **GetDomainSettingsRequest** complex type, as specified in section [3.1.4.1.3.1](#), **GetUserSettingsRequest** complex type, as specified in section [3.1.4.4.3.1](#), **GetOrganizationRelationshipSettingsRequest** complex type, as specified in section [3.1.4.3.3.1](#), and **GetFederationInformationRequest** complex type, as specified in section [3.1.4.2.3.1](#), extend the **AutodiscoverRequest** complex type.

3.1.4.4.3.3 tns:Users Complex Type

The **Users** complex type represents a collection of **User** elements, as specified in section [3.1.4.4.2.7](#), that denote users whose settings are to be retrieved.

```

<xs:complexType name="Users">
  <xs:sequence>
    <xs:element name="User"
      type="tns:User"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **Users** complex type.

Element name	Type	Description
User	tns:User (section 3.1.4.4.2.7)	Specifies the user whose settings are to be retrieved.

3.1.4.4.3.4 tns:User Complex Type

The **User** complex type represents a user whose settings are to be retrieved. The user is identified by SMTP address or legacy DN.

```
<xs:complexType name="User">
  <xs:sequence>
    <xs:element name="Mailbox"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **User** complex type.

Element name	Type	Description
Mailbox	xs:string [XMLSCHEMA2]	Specifies the e-mail address of the user whose settings are to be retrieved.

The **GetUserSettings** operation uses the specified user's e-mail address to discover that user's mailbox. The **User** element **MUST** be present.

3.1.4.4.3.5 tns:RequestedSettings Complex Type

The **RequestedSettings** complex type specifies the configuration settings to be returned by the server for the **GetUserSettings** operation.

```
<xs:complexType name="RequestedSettings">
  <xs:sequence>
    <xs:element name="Setting"
      type="xs:string"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **RequestedSettings** complex type.

Element name	Type	Description
Setting	xs:string [XMLSCHEMA2]	Specifies the configuration settings to be returned.

If the user configuration settings listed and described in the following table are implemented by the server, they are then included in valid server responses.

Configuration setting name	Description
UserDisplayName	The user's display name.
UserDN	The user's legacy DN.
UserDeploymentId	The user's deployment identifier.
InternalMailboxServer	The fully qualified domain name (FQDN) of the mailbox server.
InternalRpcClientServer	The FQDN of the RPC client server.
InternalMailboxServerDN	The legacy DN of the mailbox server.
InternalEcpUrl	The internal URL of the server's control panel.
InternalEcpVoicemailUrl	The internal URL of the server's control panel for voice mail customization.
InternalEcpEmailSubscriptionsUrl	The internal URL of the server's control panel for e-mail subscriptions.
InternalEcpTextMessagingUrl	The internal URL of the server's control panel for text messaging.
InternalEcpDeliveryReportUrl	The internal URL of the server's control panel for delivery reports.
InternalEcpRetentionPolicyTagsUrl	The internal URL of the server's control panel for retention policy tags. <16>
InternalEcpPublishingUrl	The internal URL of the server's control panel for publishing. <17>
InternalEwsUrl	The internal URL of the server's Web services.
InternalOABUrl	The internal URL of the offline address book (OAB).
InternalUMUrl	The internal URL of the Unified Messaging services.
InternalWebClientUrls	A collection of the internal URLs of the server's Web client.
MailboxDN	The DN of the mailbox database of the user's mailbox.
PublicFolderServer	The name of the Public Folders server.
ActiveDirectoryServer	The name of the directory service server.
ExternalMailboxServer	The name of the RPC over HTTP server.
ExternalMailboxServerRequiresSSL	A value that indicates whether the RPC over HTTP server SSL.
ExternalMailboxServerAuthenticationMethods	The authentication methods supported by the RPC over HTTP server.

Configuration setting name	Description
EcpVoicemailUrlFragment	The URL fragment of the server's control panel for voice mail customization.
EcpEmailSubscriptionsUrlFragment	The URL fragment of the server's control panel for e-mail subscriptions.
EcpTextMessagingUrlFragment	The URL fragment of the server's control panel for text messaging.
EcpDeliveryReportUrlFragment	The URL fragment of the server's control panel for delivery reports.
EcpRetentionPolicyTagsUrlFragment	The URL fragment of the server's control panel for retention policy tags.<18>
EcpPublishingUrlFragment	The URL fragment of the server's control panel for publishing.<19>
ExternalEcpUrl	The external URL of the server's control panel.
ExternalEcpVoicemailUrl	The external URL of the server's control panel for voice mail customization.
ExternalEcpEmailSubscriptionsUrl	The external URL of the server's control panel for e-mail subscriptions.
ExternalEcpTextMessagingUrl	The external URL of the server's control panel for text messaging.
ExternalEcpDeliveryReportUrl	The external URL of the server's control panel for delivery reports.
ExternalEcpRetentionPolicyTagsUrl	The external URL of the server's control panel for retention policy tags.<20>
ExternalEcpPublishingUrl	The external URL of the server's control panel for publishing.<21>
ExternalEwsUrl	The external URL of the server's Web services.
ExternalOABUrl	The external URL of the OAB.
ExternalUMUrl	The external URL of the Unified Messaging services.
ExternalWebClientUrls	The external URLs of the server's Web client.
CrossOrganizationSharingEnabled	A value that indicates that cross-organization sharing is enabled.
AlternateMailboxes	A collection of alternate mailboxes.
CasVersion	The version of the mailbox server that is serving the specified request (for example, 14.XX.YYY.ZZZ).
EwsSupportedSchemas	A comma-separated list of schema versions supported by the server's Web services.
InternalPop3Connections	The internal connection settings list for POP3 connections.

Configuration setting name	Description
ExternalPop3Connections	The external connection settings list for POP3 connections.
InternalImap4Connections	The internal connection settings list for IMAP4 connections.
ExternalImap4Connections	The external connection settings list for IMAP4 connections.
InternalSmtpConnections	The internal connection settings list for SMTP connections.
ExternalSmtpConnections	The external connection settings list for SMTP connections.
InternalServerExclusiveConnect	The internal server exclusive connect flag. If this is set to "Off", clients SHOULD NOT connect to the server by means of this protocol. <22>
ExternalServerExclusiveConnect	The external server exclusive connect flag. If this is set to "On", clients SHOULD connect to the server by means of this protocol. <23>
ExchangeRpcUrl	The URL that is used for remote procedure calls (RPCs). This URL is internal to the server and is not to be used by clients. <24>
ShowGalAsDefaultView	A Boolean value that indicates whether the GAL should be shown as the address book . A text value of "true" indicates that the GAL is to be shown by default. A text value of "false" indicates that the contact list is to be shown. <25>
AutoDiscoverSMTPAddress	The AutoDiscover primary SMTP address for the user. This is the proxy address to be used instead of the user's e-mail address, if a proxy address exists. <26>
InteropExternalEwsUrl	The external URL of the server's Web service endpoint (4). This is the URL for a server that can serve mailboxes hosted on a server that does not have the Web services. <27>
ExternalEwsVersion	The version of the Web services server that is delivering the specified request. <28>
InteropExternalEwsVersion	The version of the server that the InteropExternalEwsUrl configuration setting points to. <29>
MobileMailboxPolicy	The mobile mailbox policy settings. <30>

3.1.4.4.3.6 tns:GetUserSettingsResponse Complex Type

The **GetUserSettingsResponse** complex type represents a response that contains an array of user responses. A single user response contains the configuration settings for a specific user. The **GetUserSettingsResponse** complex type returns to the caller the user's configuration settings that were requested in the **GetUserSettingRequest** complex type, as specified in section

[3.1.4.4.3.1](#). The **GetUserSettingsResponse** complex type extends the **AutodiscoverResponse** complex type, as specified in section [3.1.4.4.3.7](#).

The name-value pairs for each returned user setting are included in the response. The **GetUserSettings** operation returns only the requested configuration settings, if they exist on the server.

```
<xs:complexType name="GetUserSettingsResponse"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:AutodiscoverResponse"
    >
      <xs:sequence>
        <xs:element name="UserResponses"
          type="tns:ArrayOfUserResponse"
          nillable="true"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists the child elements of the **GetUserSettingsResponse** complex type.

Element name	Type	Description
UserResponses	tns:ArrayOfUserResponse (section 3.1.4.4.2.12)	Specifies the response for each user.

3.1.4.4.3.7 tns:AutodiscoverResponse Complex Type

The **AutodiscoverResponse** complex type represents the base class for all responses returned by the Autodiscover service. It includes the **ErrorCode** and **ErrorMessage** elements.

```
<xs:complexType name="AutodiscoverResponse">
  <xs:sequence>
    <xs:element name="ErrorCode"
      type="tns:ErrorCode"
      minOccurs="0"
    />
    <xs:element name="ErrorMessage"
      type="xs:string"
      nillable="true"
      minOccurs="0"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **AutodiscoverResponse** complex type.

Element name	Type	Description
ErrorCode	tns:ErrorCode (section 3.1.4.4.2.11)	Specifies the error code that is associated with this response.
ErrorMessage	xs:string [XMLSCHEMA2]	Specifies the error message that is associated with this response.

The **GetUserSettingsResponse** complex type, as specified in section [3.1.4.4.3.6](#), **UserResponse** complex type, as specified in section [3.1.4.4.3.8](#), **GetDomainSettingsResponse** complex type, as specified in section [3.1.4.1.3.2](#), **DomainResponse** complex type, as specified in section [3.1.4.1.3.4](#), **GetOrganizationRelationshipSettingsResponse** complex type, as specified in section [3.1.4.3.3.2](#), and **GetFederationInformationResponse** complex type, as specified in section [3.1.4.2.3.2](#) extend the **AutodiscoverResponse** complex type.

3.1.4.4.3.8 tns:UserResponse Complex Type

The **UserResponse** complex type represents a response to a **GetUserSettings** operation for a specified user. The server returns only the configuration settings requested by the client. The **UserResponse** complex type extends the **AutodiscoverResponse** complex type, as specified in section [3.1.4.4.3.7](#).

```

<xs:complexType name="UserResponse"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:AutodiscoverResponse"
    >
      <xs:sequence>
        <xs:element name="RedirectTarget"
          type="xs:string"
          nillable="true"
          minOccurs="0"
        />
        <xs:element name="UserSettingErrors"
          type="tns:UserSettingErrors"
          nillable="true"
          minOccurs="0"
        />
        <xs:element name="UserSettings"
          type="tns:UserSettings"
          nillable="true"
          minOccurs="0"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **UserResponse** complex type.

Element name	Type	Description
RedirectTarget	xs:string [XMLSCHEMA2]	Specifies the target of the redirection URL or e-mail address.
UserSettingErrors	tns:UserSettingErrors (section 3.1.4.4.2.14)	Specifies the error information for settings that could not be returned.
UserSettings	tns:UserSettings (section 3.1.4.4.2.16)	Specifies the requested settings for the user.

3.1.4.4.3.9 tns:UserSettingErrors Complex Type

The **UserSettingErrors** complex type represents a collection of **UserSettingError** elements, as specified in section [3.1.4.4.2.17](#), that contains error information for settings that could not be returned.

```
<xs:complexType name="UserSettingErrors">
  <xs:sequence>
    <xs:element name="UserSettingError"
      type="tns:UserSettingError"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **UserSettingErrors** complex type.

Element name	Type	Description
UserSettingError	tns:UserSettingError (section 3.1.4.4.2.15)	Specifies an error from a GetUserSettings operation request.

3.1.4.4.3.10 tns:ArrayOfUserResponse Complex Type

The **ArrayOfUserResponse** complex type represents an array of **UserResponse** elements, as specified in section [3.1.4.4.2.13](#), that contains the responses for the specified user.

```
<xs:complexType name="ArrayOfUserResponse">
  <xs:sequence>
    <xs:element name="UserResponse"
      type="tns:UserResponse"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **ArrayOfUserResponse** complex type.

Element name	Type	Description
UserResponse	tns:UserResponse (section 3.1.4.4.2.13)	Specifies a response from a GetUserSettings operation for a specified user.

3.1.4.4.3.11 tns:UserSettingError Complex Type

The **UserSettingError** complex type represents an error that occurred while retrieving a user setting in response to a **GetUserSettings** operation request.

```
<xs:complexType name="UserSettingError">
  <xs:sequence>
    <xs:element name="ErrorCode"
      type="tns:ErrorCode"
    />
    <xs:element name="ErrorMessage"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="SettingName"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **UserSettingError** complex type.

Element name	Type	Description
ErrorCode	tns:ErrorCode (section 3.1.4.4.2.11)	Specifies the error code that is associated with the specified request.
ErrorMessage	xs:string [XMLSCHEMA2]	Specifies the error message that is associated with the specified request.
SettingName	xs:string	Specifies the name of the specified setting.

3.1.4.4.3.12 tns:UserSettings Complex Type

The **UserSettings** complex type represents a collection of **UserSetting** elements, as specified in section [3.1.4.4.2.17](#), for all user settings returned by the **GetUserSettings** operation.

```
<xs:complexType name="UserSettings">
  <xs:sequence>
    <xs:element name="UserSetting"
      type="tns:UserSetting"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>
```

```

    </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **UserSettings** complex type.

Element name	Type	Description
UserSetting	tns:UserSetting (section 3.1.4.4.2.17)	Specifies the user settings that are returned by the GetUserSettings operation.

3.1.4.4.3.13 tns:UserSetting Complex Type

The **UserSetting** complex type represents the user settings to be returned by the **GetUserSettings** operation.

```

<xs:complexType name="UserSetting">
  <xs:sequence>
    <xs:element name="Name"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **UserSetting** complex type.

Element name	Type	Description
Name	xs:string [XMLSCHEMA2]	Specifies the name of the specified setting.

The **ProtocolConnectionCollectionSetting** complex type, as specified in section [3.1.4.4.3.18](#), **StringSetting** complex type, as specified in section [3.1.4.4.2.18](#), **WebClientUrlCollectionSetting** complex type, as specified in section [3.1.4.4.3.15](#), and **AlternateMailboxCollectionSetting** complex type, as specified in section [3.1.4.4.3.21](#), extend the **UserSetting** complex type.

3.1.4.4.3.14 tns:StringSetting Complex Type

The **StringSetting** complex type represents a user setting value. The **StringSetting** complex type extends the **UserSetting** complex type, as specified in section [3.1.4.4.3.4](#).

```

<xs:complexType name="StringSetting"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:UserSetting"
    >
      <xs:sequence>
        <xs:element name="Value"

```

```

        type="xs:string"
        nillable="true"
        minOccurs="0"
      />
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>

```

The following table lists the child element of the **StringSetting** complex type.

Element name	Type	Description
Value	xs:string [XMLSCHEMA2]	Specifies the value of the specified setting.

3.1.4.4.3.15 tns:WebClientUrlCollectionSetting Complex Type

The **WebClientUrlCollectionSetting** complex type represents a collection of **WebClientUrls** elements, as specified in section [3.1.4.4.2.20](#). The **WebClientUrlCollectionSetting** complex type extends the **UserSetting** complex type, as specified in section [3.1.4.4.3.13](#).

```

<xs:complexType name="WebClientUrlCollectionSetting"
  mixed="false"
  >
  <xs:complexContent
    mixed="false"
    >
    <xs:extension
      base="tns:UserSetting"
      >
      <xs:sequence>
        <xs:element name="WebClientUrls"
          type="tns:WebClientUrls"
          nillable="true"
          />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **WebClientUrlCollectionSetting** complex type.

Element name	Type	Description
WebClientUrls	tns:WebClientUrls (section 3.1.4.4.2.20)	Specifies the Web client URLs.

3.1.4.4.3.16 tns:WebClientUrls Complex Type

The **WebClientUrls** complex type represents a collection of **WebClientUrl** elements, as specified in section [3.1.4.4.2.21](#), that specify the internal and external URLs of the server's Web client.

```

<xs:complexType name="WebClientUrls">

```

```

<xs:sequence>
  <xs:element name="WebClientUrl"
    type="tns:WebClientUrl"
    nillable="true"
    minOccurs="0"
    maxOccurs="unbounded"
  />
</xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **WebClientUrls** complex type.

Element name	Type	Description
WebClientUrl	tns:WebClientUrl (section 3.1.4.4.2.21)	Specifies the URL of the server's Web client.

3.1.4.4.3.17 tns:WebClientUrl Complex Type

The **WebClientUrl** complex type represents the URL of the server's Web client.

```

<xs:complexType name="WebClientUrl">
  <xs:sequence>
    <xs:element name="AuthenticationMethods"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="Url"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **WebClientUrl** complex type.

Element name	Type	Description
AuthenticationMethods	xs:string [XMLSCHEMA2]	Specifies the authentication methods.
Url	xs:string	Specifies the URL of the server's Web client.

The **WebClientUrl** can be used to retrieve data from a Web service.

3.1.4.4.3.18 tns:ProtocolConnectionCollectionSetting Complex Type

The **ProtocolConnectionCollectionSetting** complex type represents a collection of **ProtocolConnection** elements, as specified in section [3.1.4.4.2.24](#). The **ProtocolConnectionCollectionSetting** complex type extends the **UserSetting** complex type, as specified in section [3.1.4.4.3.4](#).

```

<xs:complexType name="ProtocolConnectionCollectionSetting"

```



```

mixed="false"
>
<xs:complexContent
  mixed="false"
  >
  <xs:extension
    base="tns:UserSetting"
    >
    <xs:sequence>
      <xs:element name="ProtocolConnections"
        type="tns:ProtocolConnections"
        nillable="true"
        />
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>

```

The following table lists the child elements of the **ProtocolConnectionCollectionSetting** complex type.

Element name	Type	Description
ProtocolConnections	tns:ProtocolConnections (section 3.1.4.4.2.23)	Specifies the protocol connections.

3.1.4.4.3.19 tns:ProtocolConnections Complex Type

The **ProtocolConnections** complex type represents a collection of **ProtocolConnection** elements, as specified in section [3.1.4.4.2.24](#), that specify the internal and external protocol connection of the server's Web client.

```

<xs:complexType name="ProtocolConnections">
  <xs:sequence>
    <xs:element name="ProtocolConnection"
      type="tns:ProtocolConnection"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
      />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **ProtocolConnections** complex type.

Element name	Type	Description
ProtocolConnection	tns:ProtocolConnection (section 3.1.4.4.2.24)	Specifies the protocol connection of the server's Web client.

3.1.4.4.3.20 tns:ProtocolConnection Complex Type

The **ProtocolConnection** complex type represents the e-mail protocol connection settings for POP3, IMAP4, and SMTP.

```
<xs:complexType name="ProtocolConnection">
  <xs:sequence>
    <xs:element name="Hostname"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="Port"
      type="xs:int"
    />
    <xs:element name="EncryptionMethod"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>
```

The following table lists the child elements of the **ProtocolConnection** complex type.

Element name	Type	Description
Hostname	xs:string [XMLSCHEMA2]	Specifies the host name portion of the computer's full name.
Port	xs:int [XMLSCHEMA2]	Specifies the port number to be used for the specified protocol.
EncryptionMethod	xs:string	Specifies the cryptographic method to be used for the specified protocol.

3.1.4.4.3.21 tns:AlternateMailboxCollectionSetting Complex Type

The **AlternateMailboxCollectionSetting** complex type represents a collection of **AlternateMailboxes** elements, as specified in section [3.1.4.4.2.26](#). The **AlternateMailboxCollectionSetting** complex type extends the **UserSetting** complex type, as specified in section [3.1.4.4.3.13](#).

```
<xs:complexType name="AlternateMailboxCollectionSetting"
  mixed="false"
>
  <xs:complexContent
    mixed="false"
  >
    <xs:extension
      base="tns:UserSetting"
    >
      <xs:sequence>
        <xs:element name="AlternateMailboxes"
          type="tns:AlternateMailboxes"
          nillable="true"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

```

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

```

The following table lists the child elements of the **AlternateMailboxCollectionSetting** complex type.

Element name	Type	Description
AlternateMailboxes	tns:AlternateMailboxes (section 3.1.4.4.2.26)	Represents a collection of alternate mailboxes.

3.1.4.4.3.22 tns:AlternateMailboxes Complex Type

The **AlternateMailboxes** complex type represents a collection of **AlternateMailbox** elements, as specified in section [3.1.4.4.2.27](#).

```

<xs:complexType name="AlternateMailboxes">
  <xs:sequence>
    <xs:element name="AlternateMailbox"
      type="tns:AlternateMailbox"
      nillable="true"
      minOccurs="0"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **AlternateMailboxes** complex type.

Element name	Type	Description
AlternateMailbox	tns:AlternateMailbox (section 3.1.4.4.2.27)	Specifies an alternate mailbox.

3.1.4.4.3.23 tns:AlternateMailbox Complex Type

The **AlternateMailbox** complex type represents an alternate mailbox.

```

<xs:complexType name="AlternateMailbox">
  <xs:sequence>
    <xs:element name="Type"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="DisplayName"
      type="xs:string"
      nillable="true"
    />
    <xs:element name="LegacyDN"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

```

    />
    <xs:element name="Server"
      type="xs:string"
      nillable="true"
    />
  </xs:sequence>
</xs:complexType>

```

The following table lists the child elements of the **AlternateMailbox** complex type.

Element name	Type	Description
Type	xs:string [XMLSCHEMA2]	Specifies the alternate mailbox type.
DisplayName	xs:string	Specifies the alternate mailbox display name.
LegacyDN	xs:string	Specifies the alternate mailbox legacy DN.
Server	xs:string	Specifies the alternate mailbox server.

An alternate mailbox corresponds to a user's external mailbox, such as a personal POP3/IMAP4 account, a Webmail account, or an archived account.

3.1.4.4.4 Simple Types

The following table summarizes the set of XML schema simple type definitions that are specific to the **GetUserSettings** operation.

Simple type name	Description
ExchangeVersion	Defines the server versions used with this protocol.
ErrorCode	Specifies the error codes that can be returned by the Autodiscover service.

3.1.4.4.4.1 tns:ExchangeVersion Simple Type

The **ExchangeVersion** simple type that defines the server versions that are used with this protocol.

```

<xs:simpleType name="ExchangeVersion">
  <xs:restriction
    base="xs:string"
  >
    <xs:enumeration
      value="Exchange2010"
    />
    <xs:enumeration
      value="Exchange2010_SP1"
    />
  </xs:restriction>
</xs:simpleType>

```

The following table lists the values that are defined by the **ExchangeVersion** simple type.

Value	Meaning
Exchange2010	Specifies a version of the target Web service schema. <31>
Exchange2010_SP1	Specifies a version of the target Web service schema. <32>

3.1.4.4.2 tns:ErrorCode Simple Type

The **ErrorCode** simple type specifies the error codes that can be returned by the Autodiscover service.

```

<xs:simpleType name="ErrorCode">
  <xs:restriction
    base="xs:string"
  >
    <xs:enumeration
      value="NoError"
    />
    <xs:enumeration
      value="RedirectAddress"
    />
    <xs:enumeration
      value="RedirectUrl"
    />
    <xs:enumeration
      value="InvalidUser"
    />
    <xs:enumeration
      value="InvalidRequest"
    />
    <xs:enumeration
      value="InvalidSetting"
    />
    <xs:enumeration
      value="SettingIsNotAvailable"
    />
    <xs:enumeration
      value="ServerBusy"
    />
    <xs:enumeration
      value="InvalidDomain"
    />
    <xs:enumeration
      value="NotFederated"
    />
    <xs:enumeration
      value="InternalServerError"
    />
  </xs:restriction>
</xs:simpleType>

```

The following table lists the values that are defined by the **ErrorCode** simple type.

Value	Meaning
NoError	Indicates that there was no error.
RedirectAddress	Indicates that the caller must follow the e-mail address redirection that was returned by the Autodiscover service.
RedirectUrl	Indicates that the caller must follow the URL redirection that was returned by the Autodiscover service.
InvalidUser	Indicates that the user name that was passed in the request is invalid.
InvalidRequest	Indicates that the request is invalid.
InvalidSetting	Indicates that the specified setting is invalid.
SettingIsNotAvailable	Indicates that a specified setting is not available.
ServerBusy	Indicates that the server is too busy to process the request.
InvalidDomain	Indicates that the requested domain is not valid.
NotFederated	Indicates that the organization is not federated.
InternalServerError	Indicates that there is an internal server error.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

The examples in the following subsections show an autodiscovery request and response, using the **GetDomainSettings**, **GetFederationInformation**, and **GetUserSettings** operations, respectively. In the **GetDomainSettings** and **GetUserSettings** examples, only the specified settings are returned to the client.

4.1 GetDomainSettings Operation

The two examples in this section show how to construct the request XML and response XML for the **GetDomainSettings** operation.

To retrieve the specified domain settings, the client constructs the Autodiscover request XML and sends it to the server, as shown in the following example.

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:a="http://schemas.microsoft.com/exchange/2010/Autodiscover"
  xmlns:wsa="http://www.w3.org/2005/08/addressing"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <a:RequestedServerVersion>Exchange2010</a:RequestedServerVersion>
    <wsa:Action>http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodi
  scover/GetDomainSettings</wsa:Action>
    <wsa:To>https://autodiscover.exchange.microsoft.com/autodiscover/autodisco
  ver.svc</wsa:To>
  </soap:Header>
  <soap:Body>
    <a:GetDomainSettingsRequestMessage xmlns:a="http://schemas.microsoft.com/e
  xchange/2010/Autodiscover">
      <a:Request>
        <a:Domains>
          <a:Domain>Redmond</a:Domain>
        </a:Domains>
        <a:RequestedSettings>
          <a:Setting>ExternalEwsUrl</a:Setting>
        </a:RequestedSettings>
      </a:Request>
    </a:GetDomainSettingsRequestMessage>
  </soap:Body>
</soap:Envelope>
</EwsLogEntry>
```

The server then constructs the Autodiscover response XML and sends it to the client, as shown in the following example.

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/" xmlns:a="http:
//www.w3.org/2005/08/addressing">
  <s:Header>
    <a:Action s:mustUnderstand="1">http://schemas.microsoft.com/exchange/2010/
  Autodiscover/Autodiscover/GetDomainSettingsResponse</a:Action>
    <h:ServerVersionInfo xmlns:h="http://schemas.microsoft.com/exchange/2010/A
  utodiscover" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <h:MajorVersion>14</h:MajorVersion>
      <h:MinorVersion>0</h:MinorVersion>
      <h:MajorBuildNumber>639</h:MajorBuildNumber>
    </h:ServerVersionInfo>
  </s:Header>
  <s:Body>
    <a:Response>
      <a:DomainSettings>
        <a:Domain>Redmond</a:Domain>
        <a:ExternalEwsUrl>https://redmond.exchprod.msft.com/ews/Exchange2010-
        Autodiscover/</a:ExternalEwsUrl>
      </a:DomainSettings>
    </a:Response>
  </s:Body>
</s:Envelope>
```

```

        <h:MinorBuildNumber>20</h:MinorBuildNumber>
        <h:Version>Exchange2010</h:Version>
    </h:ServerVersionInfo>
</s:Header>
<s:Body>
    <GetDomainSettingsResponseMessage xmlns="http://schemas.microsoft.com/exchange/2010/Autodiscover">
        <Response xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <ErrorCode>NoError</ErrorCode>
            <ErrorMessage />
            <DomainResponses>
                <DomainResponse>
                    <ErrorCode>NoError</ErrorCode>
                    <ErrorMessage>No error.</ErrorMessage>
                    <DomainSettingErrors />
                    <DomainSettings>
                        <DomainSetting i:type="DomainStringSetting">
                            <Name>ExternalEwsUrl</Name>
                            <Value>https://emea.mail.microsoft.com/EWS/Exchange.asmx</Value>
                        </DomainSetting>
                    </DomainSettings>
                    <RedirectTarget i:nil="true" />
                </DomainResponse>
            </DomainResponses>
        </Response>
    </GetDomainSettingsResponseMessage>
</s:Body>
</s:Envelope>

```

4.2 GetFederationInformation Operation

The two examples in this section show how to construct the request XML and response XML for the **GetFederationInformation** operation.

In the request, the caller is requesting domain information for the domain "contoso.com", as shown in the following example.

```

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:exm="http://schemas.microsoft.com/exchange/services/2006/messages"
  xmlns:ext="http://schemas.microsoft.com/exchange/services/2006/types"
  xmlns:a="http://www.w3.org/2005/08/addressing"
  xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <a:MessageID>urn:uuid:6389558d-9e05-465e-ade9-aae14c4bcd10</a:MessageID>
    <a:Action
      soap:mustUnderstand="1">http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/
      GetFederationInformation</a:Action>
    <a:To soap:mustUnderstand="1">https://autodiscover.byfcx-
      dom.extest.microsoft.com/autodiscover/autodiscover.svc</a:To>
    <a:ReplyTo>
      <a:Address>http://www.w3.org/2005/08/addressing/anonymous</a:Address>
    </a:ReplyTo>
  </soap:Header>
  <soap:Body>

```



```

    <GetFederationInformationRequestMessage
xmlns="http://schemas.microsoft.com/exchange/2010/Autodiscover">
    <Request>
        <Domain>contoso.com</Domain>
    </Request>
    </GetFederationInformationRequestMessage>
</soap:Body>
</soap:Envelope>

```

The server then constructs the response XML and sends it to the client, as shown in the following example.

```

<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:a="http://www.w3.org/2005/08/addressing">
    <s:Header>
        <a:Action
s:mustUnderstand="1">http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodiscover/Get
FederationInformationResponse</a:Action>
        <a:RelatesTo>urn:uuid:6389558d-9e05-465e-ade9-aae14c4bcd10</a:RelatesTo>
    </s:Header>
    <s:Body>
        <GetFederationInformationResponseMessage
xmlns="http://schemas.microsoft.com/exchange/2010/Autodiscover">
        <Response xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
            <ErrorCode>NoError</ErrorCode>
            <ErrorMessage/>
            <ApplicationUri>BYFCXU-DOM.EXTEST.MICROSOFT.COM</ApplicationUri>
            <Domains>
                <Domain>contoso.com</Domain>
                <Domain>europe.contoso.com</Domain>
                <Domain>americas.contoso.com</Domain>
                <Domain>contosolive.com</Domain>
            </Domains>
        </Response>
        </GetFederationInformationResponseMessage>
    </s:Body>
</s:Envelope>

```

4.3 GetUserSettings Operation

The two examples in this section show how to construct the request XML and response XML for the **GetUserSettings** operation.

To retrieve the requested user settings, the client constructs the Autodiscover request XML and sends it to the server, as shown in the following example.

```

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:a="http://schemas.microsoft.com/exchange/2010/Autodiscover"
xmlns:wsa="http://www.w3.org/2005/08/addressing" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <soap:Header>
        <a:RequestedServerVersion>Exchange2010</a:RequestedServerVersion>
        <wsa:Action>http://schemas.microsoft.com/exchange/2010/Autodiscover/Autodi

```

```

discover/GetUserSettings</wsa:Action>
  <wsa:To>https://autodiscover.exchange.microsoft.com/autodiscover/autodisco
ver.svc</wsa:To>
</soap:Header>
<soap:Body>
  <a:GetUserSettingsRequestMessage xmlns:a="http://schemas.microsoft.com/exc
hange/2010/Autodiscover">
    <a:Request>
      <a:Users>
        <a:User>
          <a:Mailbox>tadam@exchange.microsoft.com</a:Mailbox>
        </a:User>
      </a:Users>
      <a:RequestedSettings>
        <a:Setting>UserDisplayName</a:Setting>
        <a:Setting>UserDN</a:Setting>
        <a:Setting>UserDeploymentId</a:Setting>
        <a:Setting>InternalMailboxServer</a:Setting>
        <a:Setting>MailboxDN</a:Setting>
        <a:Setting>PublicFolderServer</a:Setting>
        <a:Setting>ActiveDirectoryServer</a:Setting>
        <a:Setting>ExternalEwsUrl</a:Setting>
        <a:Setting>CasVersion</a:Setting>
        <a:Setting>EwsSupportedSchemas</a:Setting>
      </a:RequestedSettings>
    </a:Request>
  </a:GetUserSettingsRequestMessage>
</soap:Body>
</soap:Envelope>

```

The server then constructs the Autodiscover response XML and sends it to the client, as shown in the following example.

```

<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/" xmlns:a="http:
//www.w3.org/2005/08/addressing">
  <s:Header>
    <a:Action s:mustUnderstand="1">http://schemas.microsoft.com/exchange/2010/
Autodiscover/Autodiscover/GetUserSettingsResponse</a:Action>
    <h:ServerVersionInfo xmlns:h="http://schemas.microsoft.com/exchange/2010/A
utodiscover" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
      <h:MajorVersion>14</h:MajorVersion>
      <h:MinorVersion>1</h:MinorVersion>
      <h:MajorBuildNumber>63</h:MajorBuildNumber>
      <h:MinorBuildNumber>0</h:MinorBuildNumber>
      <h:Version>Exchange2010_SP1</h:Version>
    </h:ServerVersionInfo>
  </s:Header>
  <s:Body>
    <GetUserSettingsResponseMessage xmlns="http://schemas.microsoft.com/exchan
ge/2010/Autodiscover">
      <Response xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
        <ErrorCode>NoError</ErrorCode>
        <ErrorMessage />
        <UserResponses>
          <UserResponse>
            <ErrorCode>NoError</ErrorCode>
            <ErrorMessage>No error.</ErrorMessage>
          </UserResponse>
        </UserResponses>
      </Response>
    </GetUserSettingsResponseMessage>
  </s:Body>
</s:Envelope>

```

```

    <RedirectTarget i:nil="true" />
    <UserSettingErrors />
    <UserSettings>
      <UserSetting i:type="StringSetting">
        <Name>UserDisplayName</Name>
        <Value>Terry Adams</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>UserDN</Name>
        <Value>/o=microsoft/ou=Exchange Administrative Group (FYDIBOHF
23SPDLT)/cn=Recipients/cn=tadam</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>UserDeploymentId</Name>
        <Value>649d50b8-a1ce-4bac-8ace-2321e463f701</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>CasVersion</Name>
        <Value>14.01.0063.000</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>EwsSupportedSchemas</Name>
        <Value>Exchange2007, Exchange2007_SP1, Exchange2010,
Exchange2010_SP1</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>InternalMailboxServer</Name>
        <Value>DF-M14-05.Contoso.com</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>ActiveDirectoryServer</Name>
        <Value>CO1-EXCH-DC-05.Contoso.com</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>MailboxDN</Name>
        <Value>/o=microsoft/ou=Exchange Administrative Group (FYDIBOHF
23SPDLT)/cn=Configuration/cn=Servers/cn=outlookbeta.exchange.corp.microsoft.com/
cn=Microsoft Private MDB</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>PublicFolderServer</Name>
        <Value>DF-P14-01.Contoso.com</Value>
      </UserSetting>
      <UserSetting i:type="StringSetting">
        <Name>ExternalEwsUrl</Name>
        <Value>https://mail.Contoso.com/EWS/Exchange.asmx</
Value>
      </UserSetting>
    </UserSettings>
  </UserResponse>
</UserResponses>
</Response>
</GetUserSettingsResponseMessage>
</s:Body>
</s:Envelope>

```

5 Security

5.1 Security Considerations for Implementers

This protocol requires Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS). Not providing SSL will seriously affect the functionality of this protocol. The server will not answer Autodiscover queries unless the Autodiscover client has first authenticated with the Autodiscover server.

The **GetFederationInformation** operation has to be anonymous. The intent of the **GetFederationInformation** operation is to provide information to other organizations with the security token service (STS) in common and instruct them as to how to request tokens to authenticate against other services. Therefore, the caller needs to have access to the federation information without the need to authenticate first.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

```
<?xml version="1.0" encoding="utf-8"?>
  <wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
    xmlns:wss="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
utility-1.0.xsd"
    xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
    xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata"
    xmlns:tns="http://schemas.microsoft.com/exchange/2010/Autodiscover"
    xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
    xmlns:wsp="http://schemas.xmlsoap.org/ws/2004/09/policy"
    xmlns:wsap="http://schemas.xmlsoap.org/ws/2004/08/addressing/policy"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:misc="http://schemas.microsoft.com/ws/2005/12/wsdl/contract"
    xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"
    xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
    xmlns:wsa10="http://www.w3.org/2005/08/addressing"
    xmlns:wxs="http://schemas.xmlsoap.org/ws/2004/09/mex"
    targetNamespace="http://schemas.microsoft.com/exchange/2010/Autodiscover"
    xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xsd:schema
targetNamespace="http://schemas.microsoft.com/exchange/2010/Autodiscover/Imports">
      <xsd:import namespace="http://schemas.microsoft.com/exchange/2010/Autodiscover"
location="messages.xsd" />
    </xsd:schema>
  </wsdl:types>
  <wsdl:message name="GetUserSettingsRequestMessage">
    <wsdl:part name="parameters" element="tns:GetUserSettingsRequestMessage" />
  </wsdl:message>
  <wsdl:message name="GetUserSettingsRequestMessage_Headers">
    <wsdl:part name="RequestedServerVersion" element="tns:RequestedServerVersion" />
  </wsdl:message>
  <wsdl:message name="GetUserSettingsResponseMessage">
    <wsdl:part name="parameters" element="tns:GetUserSettingsResponseMessage" />
  </wsdl:message>
  <wsdl:message name="GetUserSettingsResponseMessage_Headers">
    <wsdl:part name="ServerVersionInfo" element="tns:ServerVersionInfo" />
  </wsdl:message>
  <wsdl:message name="GetDomainSettingsRequestMessage">
    <wsdl:part name="parameters" element="tns:GetDomainSettingsRequestMessage" />
  </wsdl:message>
  <wsdl:message name="GetDomainSettingsRequestMessage_Headers">
    <wsdl:part name="RequestedServerVersion" element="tns:RequestedServerVersion" />
  </wsdl:message>
  <wsdl:message name="GetDomainSettingsResponseMessage">
    <wsdl:part name="parameters" element="tns:GetDomainSettingsResponseMessage" />
  </wsdl:message>
  <wsdl:message name="GetDomainSettingsResponseMessage_Headers">
    <wsdl:part name="ServerVersionInfo" element="tns:ServerVersionInfo" />
  </wsdl:message>
  <wsdl:message name="GetFederationInformationRequestMessage">
    <wsdl:part name="parameters" element="tns:GetFederationInformationRequestMessage" />
  </wsdl:message>
  <wsdl:message name="GetFederationInformationRequestMessage_Headers">
    <wsdl:part name="RequestedServerVersion" element="tns:RequestedServerVersion" />
  </wsdl:message>
  <wsdl:message name="GetFederationInformationResponseMessage">
    <wsdl:part name="parameters" element="tns:GetFederationInformationResponseMessage" />
  </wsdl:message>
```

```

</wsdl:message>
<wsdl:message name="GetFederationInformationResponseMessage_Headers">
  <wsdl:part name="ServerVersionInfo" element="tns:ServerVersionInfo" />
</wsdl:message>
<wsdl:message name="GetOrganizationRelationshipSettingsRequestMessage">
  <wsdl:part name="parameters"
element="tns:GetOrganizationRelationshipSettingsRequestMessage" />
</wsdl:message>
<wsdl:message name="GetOrganizationRelationshipSettingsRequestMessage_Headers">
  <wsdl:part name="RequestedServerVersion" element="tns:RequestedServerVersion" />
</wsdl:message>
<wsdl:message name="GetOrganizationRelationshipSettingsResponseMessage">
  <wsdl:part name="parameters"
element="tns:GetOrganizationRelationshipSettingsResponseMessage" />
</wsdl:message>
<wsdl:message name="GetOrganizationRelationshipSettingsResponseMessage_Headers">
  <wsdl:part name="ServerVersionInfo" element="tns:ServerVersionInfo" />
</wsdl:message>
<wsdl:portType name="Autodiscover">
  <wsdl:operation name="GetUserSettings">
    <wsdl:input wsaw:Action="http://schemas.microsoft.com/exchange/2010/
Autodiscover/Autodiscover/GetUserSettings"
name="GetUserSettingsRequestMessage"
message="tns:GetUserSettingsRequestMessage" />
    <wsdl:output wsaw:Action="http://schemas.microsoft.com/exchange/2010/Autodiscover/
Autodiscover/GetUserSettingsResponse"
name="GetUserSettingsResponseMessage"
message="tns:GetUserSettingsResponseMessage" />
  </wsdl:operation>
  <wsdl:operation name="GetDomainSettings">
    <wsdl:input wsaw:Action="http://schemas.microsoft.com/exchange/2010/
Autodiscover/Autodiscover/GetDomainSettings"
name="GetDomainSettingsRequestMessage"
message="tns:GetDomainSettingsRequestMessage" />
    <wsdl:output wsaw:Action="http://schemas.microsoft.com/exchange/2010/Autodiscover/
Autodiscover/GetDomainSettingsResponse"
name="GetDomainSettingsResponseMessage"
message="tns:GetDomainSettingsResponseMessage" />
  </wsdl:operation>
  <wsdl:operation name="GetFederationInformation">
    <wsdl:input wsaw:Action="http://schemas.microsoft.com/exchange/2010/
Autodiscover/Autodiscover/GetFederationInformation"
name="GetFederationInformationRequestMessage"
message="tns:GetFederationInformationRequestMessage" />
    <wsdl:output wsaw:Action="http://schemas.microsoft.com/exchange/2010/Autodiscover/
Autodiscover/GetFederationInformationResponse"
name="GetFederationInformationResponseMessage"
message="tns:GetFederationInformationResponseMessage" />
  </wsdl:operation>
  <wsdl:operation name="GetOrganizationRelationshipSettings">
    <wsdl:input wsaw:Action="http://schemas.microsoft.com/exchange/2010/Autodiscover/
Autodiscover/GetOrganizationRelationshipSettings"
name="GetOrganizationRelationshipSettingsRequestMessage"
message="tns:GetOrganizationRelationshipSettingsRequestMessage" />
    <wsdl:output wsaw:Action="http://schemas.microsoft.com/exchange/2010/Autodiscover/
Autodiscover/GetOrganizationRelationshipSettingsResponse"
name="GetOrganizationRelationshipSettingsResponseMessage"
message="tns:GetOrganizationRelationshipSettingsResponseMessage" />
  </wsdl:operation>

```

```

</wsdl:portType>
<wsdl:binding name="DefaultBinding_Autodiscover" type="tns:Autodiscover">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetUserSettings">
    <soap:operation soapAction="http://schemas.microsoft.com/exchange/2010/Autodiscover/
      Autodiscover/GetUserSettings" style="document" />
    <wsdl:input name="GetUserSettingsRequestMessage">
      <soap:header message="tns:GetUserSettingsRequestMessage_Headers"
        part="RequestedServerVersion" use="literal" />
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="GetUserSettingsResponseMessage">
      <soap:header message="tns:GetUserSettingsResponseMessage_Headers"
        part="ServerVersionInfo" use="literal" />
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetDomainSettings">
    <soap:operation soapAction="http://schemas.microsoft.com/exchange/2010/Autodiscover/
      Autodiscover/GetDomainSettings" style="document" />
    <wsdl:input name="GetDomainSettingsRequestMessage">
      <soap:header message="tns:GetDomainSettingsRequestMessage_
        Headers" part="RequestedServerVersion" use="literal" />
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="GetDomainSettingsResponseMessage">
      <soap:header message="tns:GetDomainSettingsResponseMessage_
        Headers" part="ServerVersionInfo" use="literal" />
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetFederationInformation">
    <soap:operation soapAction="http://schemas.microsoft.com/exchange/2010/Autodiscover/
      Autodiscover/GetFederationInformation" style="document" />
    <wsdl:input name="GetFederationInformationRequestMessage">
      <soap:header message="tns:GetFederationInformationRequestMessage_Headers"
        part="RequestedServerVersion" use="literal" />
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="GetFederationInformationResponseMessage">
      <soap:header message="tns:GetFederationInformationResponseMessage_Headers"
        part="ServerVersionInfo" use="literal" />
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetOrganizationRelationshipSettings">
    <soap:operation soapAction="http://schemas.microsoft.com/exchange/2010/Autodiscover/
      Autodiscover/GetOrganizationRelationshipSettings" style="document" />
    <wsdl:input name="GetOrganizationRelationshipSettingsRequestMessage">
      <soap:header message="tns:GetOrganizationRelationshipSettingsRequestMessage_
        Headers" part="RequestedServerVersion" use="literal" />
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="GetOrganizationRelationshipSettingsResponseMessage">
      <soap:header message="tns:GetOrganizationRelationshipSettingsResponseMessage_
        Headers" part="ServerVersionInfo" use="literal" />
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>

```

```
</wsdl:binding>  
</wsdl:definitions>
```


7 Appendix B: Full XML Schema

For ease of implementation, the following section provides the full XML schema for this protocol.

Schema name	Prefix	Section
Messages schema	m:	7.1

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-OXWSADISC-messages.xsd schema have to be placed in the common folder along with the file listed in the table.

7.1 Messages Schema

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:tns="http://schemas.microsoft.com/exchange/2010/Autodiscover"
  elementFormDefault="qualified"
    targetNamespace="http://schemas.microsoft.com/exchange/2010/Autodiscover"
    xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="GetUserSettingsRequestMessage">
    <xs:complexType>
      <xs:sequence>
        <xs:element minOccurs="0" name="Request" nillable="true"
type="tns:GetUserSettingsRequest" />
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:complexType name="GetUserSettingsRequest">
    <xs:complexContent mixed="false">
      <xs:extension base="tns:AutodiscoverRequest">
        <xs:sequence>
          <xs:element name="Users" nillable="true" type="tns:Users" />
          <xs:element name="RequestedSettings" nillable="true" type="tns:RequestedSettings"
/>
          <xs:element name="RequestedVersion" nillable="true" type="tns:ExchangeVersion" />
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetUserSettingsRequest" nillable="true" type="tns:GetUserSettingsRequest"
/>
  <xs:complexType name="AutodiscoverRequest">
    <xs:sequence />
  </xs:complexType>
  <xs:element name="AutodiscoverRequest" nillable="true" type="tns:AutodiscoverRequest" />
  <xs:complexType name="Users">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="User" nillable="true"
type="tns:User" />
    </xs:sequence>
  </xs:complexType>
  <xs:element name="Users" nillable="true" type="tns:Users" />
  <xs:complexType name="User">
    <xs:sequence>
      <xs:element name="Mailbox" nillable="true" type="xs:string" />
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

```

<xs:element name="User" nillable="true" type="tns:User" />
<xs:complexType name="RequestedSettings">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Setting" nillable="true"
type="xs:string" />
  </xs:sequence>
</xs:complexType>
<xs:element name="RequestedSettings" nillable="true" type="tns:RequestedSettings" />
<xs:simpleType name="ExchangeVersion">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Exchange2010" />
    <xs:enumeration value="Exchange2010_SP1" />
  </xs:restriction>
</xs:simpleType>
<xs:element name="RequestedServerVersion">
  <xs:simpleType>
    <xs:restriction base="tns:ExchangeVersion" />
  </xs:simpleType>
</xs:element>
<xs:element name="GetUserSettingsResponseMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="Response" nillable="true"
type="tns:GetUserSettingsResponse" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:complexType name="GetUserSettingsResponse">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:AutodiscoverResponse">
      <xs:sequence>
        <xs:element minOccurs="0" name="UserResponses" nillable="true"
type="tns:ArrayOfUserResponse" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="GetUserSettingsResponse" nillable="true"
type="tns:GetUserSettingsResponse" />
<xs:complexType name="AutodiscoverResponse">
  <xs:sequence>
    <xs:element minOccurs="0" name="ErrorCode" type="tns:ErrorCode" />
    <xs:element minOccurs="0" name="ErrorMessage" nillable="true" type="xs:string" />
  </xs:sequence>
</xs:complexType>
<xs:element name="AutodiscoverResponse" nillable="true" type="tns:AutodiscoverResponse" />
<xs:simpleType name="ErrorCode">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NoError" />
    <xs:enumeration value="RedirectAddress" />
    <xs:enumeration value="RedirectUrl" />
    <xs:enumeration value="InvalidUser" />
    <xs:enumeration value="InvalidRequest" />
    <xs:enumeration value="InvalidSetting" />
    <xs:enumeration value="SettingIsNotAvailable" />
    <xs:enumeration value="ServerBusy" />
    <xs:enumeration value="InvalidDomain" />
    <xs:enumeration value="NotFederated" />
    <xs:enumeration value="InternalServerError" />
  </xs:restriction>

```

```

    </xs:restriction>
</xs:simpleType>
<xs:element name="ErrorCode" nillable="true" type="tns:ErrorCode" />
<xs:complexType name="ArrayOfUserResponse">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="UserResponse"
      nillable="true" type="tns:UserResponse" />
  </xs:sequence>
</xs:complexType>
<xs:element name="ArrayOfUserResponse" nillable="true"
  type="tns:ArrayOfUserResponse" />
<xs:complexType name="UserResponse">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:AutodiscoverResponse">
      <xs:sequence>
        <xs:element minOccurs="0" name="RedirectTarget" nillable="true" type="xs:string" />
        <xs:element minOccurs="0" name="UserSettingErrors" nillable="true"
type="tns:UserSettingErrors" />
        <xs:element minOccurs="0" name="UserSettings" nillable="true"
type="tns:UserSettings" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="UserResponse" nillable="true" type="tns:UserResponse" />
<xs:complexType name="UserSettingErrors">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="UserSettingError"
      nillable="true" type="tns:UserSettingError" />
  </xs:sequence>
</xs:complexType>
<xs:element name="UserSettingErrors" nillable="true" type="tns:UserSettingErrors" />
<xs:complexType name="UserSettingError">
  <xs:sequence>
    <xs:element name="ErrorCode" type="tns:ErrorCode" />
    <xs:element name="ErrorMessage" nillable="true" type="xs:string" />
    <xs:element name="SettingName" nillable="true" type="xs:string" />
  </xs:sequence>
</xs:complexType>
<xs:element name="UserSettingError" nillable="true" type="tns:UserSettingError" />
<xs:complexType name="UserSettings">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="UserSetting"
      nillable="true" type="tns:UserSetting" />
  </xs:sequence>
</xs:complexType>
<xs:element name="UserSettings" nillable="true" type="tns:UserSettings" />
<xs:complexType name="UserSetting">
  <xs:sequence>
    <xs:element name="Name" nillable="true" type="xs:string" />
  </xs:sequence>
</xs:complexType>
<xs:element name="UserSetting" nillable="true" type="tns:UserSetting" />
<xs:complexType name="ProtocolConnectionCollectionSetting">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:UserSetting">
      <xs:sequence>
        <xs:element name="ProtocolConnections" nillable="true"
type="tns:ProtocolConnections" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

```

        </xs:sequence>
    </xs:extension>
</xs:complexContent>
</xs:complexType>
<xs:element name="ProtocolConnectionCollectionSetting" nillable="true"
    type="tns:ProtocolConnectionCollectionSetting" />
<xs:complexType name="ProtocolConnections">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="ProtocolConnection"
            nillable="true" type="tns:ProtocolConnection" />
    </xs:sequence>
</xs:complexType>
<xs:element name="ProtocolConnections" nillable="true" type="tns:ProtocolConnections" />
<xs:complexType name="ProtocolConnection">
    <xs:sequence>
        <xs:element name="Hostname" nillable="true" type="xs:string" />
        <xs:element name="Port" type="xs:int" />
        <xs:element name="EncryptionMethod" nillable="true" type="xs:string" />
    </xs:sequence>
</xs:complexType>
<xs:element name="ProtocolConnection" nillable="true" type="tns:ProtocolConnection" />
<xs:complexType name="StringSetting">
    <xs:complexContent mixed="false">
        <xs:extension base="tns:UserSetting">
            <xs:sequence>
                <xs:element minOccurs="0" name="Value" nillable="true" type="xs:string" />
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="StringSetting" nillable="true" type="tns:StringSetting" />
<xs:complexType name="WebClientUrlCollectionSetting">
    <xs:complexContent mixed="false">
        <xs:extension base="tns:UserSetting">
            <xs:sequence>
                <xs:element name="WebClientUrls" nillable="true" type="tns:WebClientUrls" />
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="WebClientUrlCollectionSetting" nillable="true"
    type="tns:WebClientUrlCollectionSetting" />
<xs:complexType name="WebClientUrls">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="WebClientUrl"
            nillable="true" type="tns:WebClientUrl" />
    </xs:sequence>
</xs:complexType>
<xs:element name="WebClientUrls" nillable="true" type="tns:WebClientUrls" />
<xs:complexType name="WebClientUrl">
    <xs:sequence>
        <xs:element name="AuthenticationMethods" nillable="true" type="xs:string" />
        <xs:element name="Url" nillable="true" type="xs:string" />
    </xs:sequence>
</xs:complexType>
<xs:element name="WebClientUrl" nillable="true" type="tns:WebClientUrl" />
<xs:complexType name="AlternateMailboxCollectionSetting">
    <xs:complexContent mixed="false">
        <xs:extension base="tns:UserSetting">

```

```

        <xs:sequence>
          <xs:element name="AlternateMailboxes" nillable="true" type="tns:AlternateMailboxes"
/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="AlternateMailboxCollectionSetting" nillable="true"
    type="tns:AlternateMailboxCollectionSetting" />
  <xs:complexType name="AlternateMailboxes">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="AlternateMailbox"
        nillable="true" type="tns:AlternateMailbox" />
    </xs:sequence>
  </xs:complexType>
  <xs:element name="AlternateMailboxes" nillable="true" type="tns:AlternateMailboxes" />
  <xs:complexType name="AlternateMailbox">
    <xs:sequence>
      <xs:element name="Type" nillable="true" type="xs:string" />
      <xs:element name="DisplayName" nillable="true" type="xs:string" />
      <xs:element name="LegacyDN" nillable="true" type="xs:string" />
      <xs:element name="Server" nillable="true" type="xs:string" />
    </xs:sequence>
  </xs:complexType>
  <xs:element name="AlternateMailbox" nillable="true" type="tns:AlternateMailbox" />
  <xs:complexType name="ServerVersionInfo">
    <xs:sequence>
      <xs:element minOccurs="0" name="MajorVersion" type="xs:int" />
      <xs:element minOccurs="0" name="MinorVersion" type="xs:int" />
      <xs:element minOccurs="0" name="MajorBuildNumber" type="xs:int" />
      <xs:element minOccurs="0" name="MinorBuildNumber" type="xs:int" />
      <xs:element minOccurs="0" name="Version" nillable="true" type="xs:string" />
    </xs:sequence>
  </xs:complexType>
  <xs:element name="ServerVersionInfo" nillable="true" type="tns:ServerVersionInfo" />
  <xs:element name="GetDomainSettingsRequestMessage">
    <xs:complexType>
      <xs:sequence>
        <xs:element minOccurs="0" name="Request" nillable="true"
          type="tns:GetDomainSettingsRequest" />
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:complexType name="GetDomainSettingsRequest">
    <xs:complexContent mixed="false">
      <xs:extension base="tns:AutodiscoverRequest">
        <xs:sequence>
          <xs:element name="Domains" nillable="true" type="tns:Domains" />
          <xs:element name="RequestedSettings" nillable="true" type="tns:RequestedSettings"
/>
          <xs:element name="RequestedVersion" nillable="true" type="tns:ExchangeVersion" />
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetDomainSettingsRequest" nillable="true"
type="tns:GetDomainSettingsRequest" />
  <xs:complexType name="Domains">
    <xs:sequence>

```

```

        <xs:element minOccurs="0" maxOccurs="unbounded" name="Domain"
            nillable="true" type="xs:string" />
    </xs:sequence>
</xs:complexType>
<xs:element name="Domains" nillable="true" type="tns:Domains" />
<xs:element name="GetDomainSettingsResponseMessage">
    <xs:complexType>
        <xs:sequence>
            <xs:element minOccurs="0" name="Response" nillable="true"
                type="tns:GetDomainSettingsResponse" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:complexType name="GetDomainSettingsResponse">
    <xs:complexContent mixed="false">
        <xs:extension base="tns:AutodiscoverResponse">
            <xs:sequence>
                <xs:element minOccurs="0" name="DomainResponses" nillable="true"
                    type="tns:ArrayOfDomainResponse" />
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="GetDomainSettingsResponse" nillable="true"
    type="tns:GetDomainSettingsResponse" />
<xs:complexType name="ArrayOfDomainResponse">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="DomainResponse"
            nillable="true" type="tns:DomainResponse" />
    </xs:sequence>
</xs:complexType>
<xs:element name="ArrayOfDomainResponse" nillable="true"
    type="tns:ArrayOfDomainResponse" />
<xs:complexType name="DomainResponse">
    <xs:complexContent mixed="false">
        <xs:extension base="tns:AutodiscoverResponse">
            <xs:sequence>
                <xs:element minOccurs="0" name="DomainSettingErrors" nillable="true"
                    type="tns:DomainSettingErrors" />
                <xs:element minOccurs="0" name="DomainSettings" nillable="true"
                    type="tns:DomainSettings" />
                <xs:element minOccurs="0" name="RedirectTarget" nillable="true" type="xs:string" />
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="DomainResponse" nillable="true" type="tns:DomainResponse" />
<xs:complexType name="DomainSettingErrors">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="DomainSettingError"
            nillable="true" type="tns:DomainSettingError" />
    </xs:sequence>
</xs:complexType>
<xs:element name="DomainSettingErrors" nillable="true" type="tns:DomainSettingErrors" />
<xs:complexType name="DomainSettingError">
    <xs:sequence>
        <xs:element name="ErrorCode" type="tns:ErrorCode" />
        <xs:element name="ErrorMessage" nillable="true" type="xs:string" />
        <xs:element name="SettingName" nillable="true" type="xs:string" />
    </xs:sequence>
</xs:complexType>

```

```

    </xs:sequence>
</xs:complexType>
<xs:element name="DomainSettingError" nillable="true" type="tns:DomainSettingError" />
<xs:complexType name="DomainSettings">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="DomainSetting"
      nillable="true" type="tns:DomainSetting" />
  </xs:sequence>
</xs:complexType>
<xs:element name="DomainSettings" nillable="true"
  type="tns:DomainSettings" />
<xs:complexType name="DomainSetting">
  <xs:sequence>
    <xs:element name="Name" nillable="true" type="xs:string" />
  </xs:sequence>
</xs:complexType>
<xs:element name="DomainSetting" nillable="true"
  type="tns:DomainSetting" />
<xs:complexType name="DomainStringSetting">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:DomainSetting">
      <xs:sequence>
        <xs:element minOccurs="0" name="Value" nillable="true" type="xs:string" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="DomainStringSetting" nillable="true"
  type="tns:DomainStringSetting" />
<xs:element name="GetFederationInformationRequestMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="Request" nillable="true"
        type="tns:GetFederationInformationRequest" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:complexType name="GetFederationInformationRequest">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:AutodiscoverRequest">
      <xs:sequence>
        <xs:element name="Domain" nillable="true" type="xs:string" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="GetFederationInformationRequest" nillable="true"
  type="tns:GetFederationInformationRequest" />
<xs:element name="GetFederationInformationResponseMessage">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="Response" nillable="true"
        type="tns:GetFederationInformationResponse" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:complexType name="GetFederationInformationResponse">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:AutodiscoverResponse">

```

```

        <xs:sequence>
          <xs:element minOccurs="0" name="ApplicationUri" nillable="true" type="xs:anyURI" />
          <xs:element minOccurs="0" name="Domains" nillable="true" type="tns:Domains" />
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetFederationInformationResponse" nillable="true"
    type="tns:GetFederationInformationResponse" />
  <xs:element name="GetOrganizationRelationshipSettingsRequestMessage">
    <xs:complexType>
      <xs:sequence>
        <xs:element minOccurs="0" name="Request" nillable="true"
          type="tns:GetOrganizationRelationshipSettingsRequest" />
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:complexType name="GetOrganizationRelationshipSettingsRequest">
    <xs:complexContent mixed="false">
      <xs:extension base="tns:AutodiscoverRequest">
        <xs:sequence>
          <xs:element name="Domains" nillable="true" type="tns:Domains" />
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetOrganizationRelationshipSettingsRequest"
    nillable="true" type="tns:GetOrganizationRelationshipSettingsRequest" />
  <xs:element name="GetOrganizationRelationshipSettingsResponseMessage">
    <xs:complexType>
      <xs:sequence>
        <xs:element minOccurs="0" name="Response" nillable="true"
          type="tns:GetOrganizationRelationshipSettingsResponse" />
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:complexType name="GetOrganizationRelationshipSettingsResponse">
    <xs:complexContent mixed="false">
      <xs:extension base="tns:AutodiscoverResponse">
        <xs:sequence>
          <xs:element minOccurs="0" name="OrganizationRelationshipSettingsCollection"
            nillable="true" type="tns:OrganizationRelationshipSettingsCollection" />
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetOrganizationRelationshipSettingsResponse" nillable="true"
    type="tns:GetOrganizationRelationshipSettingsResponse" />
  <xs:complexType name="OrganizationRelationshipSettingsCollection">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="OrganizationRelationshipSettings"
        nillable="true" type="tns:OrganizationRelationshipSettings" />
    </xs:sequence>
  </xs:complexType>
  <xs:element name="OrganizationRelationshipSettingsCollection" nillable="true"
    type="tns:OrganizationRelationshipSettingsCollection" />
  <xs:complexType name="OrganizationRelationshipSettings">
    <xs:sequence>
      <xs:element name="DeliveryReportEnabled" type="xs:boolean" />
    </xs:sequence>
  </xs:complexType>

```



```
<xs:element name="DomainNames" nillable="true" type="tns:Domains" />
<xs:element name="FreeBusyAccessEnabled" type="xs:boolean" />
<xs:element name="FreeBusyAccessLevel" nillable="true" type="xs:string" />
<xs:element name="MailTipsAccessEnabled" type="xs:boolean" />
<xs:element name="MailTipsAccessLevel" nillable="true" type="xs:string" />
<xs:element name="MailboxMoveEnabled" type="xs:boolean" />
<xs:element name="Name" nillable="true" type="xs:string" />
<xs:element name="TargetApplicationUri" nillable="true" type="xs:anyURI" />
<xs:element name="TargetAutodiscoverEpr" nillable="true" type="xs:anyURI" />
<xs:element name="TargetSharingEpr" nillable="true" type="xs:anyURI" />
</xs:sequence>
</xs:complexType>
<xs:element name="OrganizationRelationshipSettings" nillable="true"
  type="tns:OrganizationRelationshipSettings" />
</xs:schema>
```

8 Appendix C: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include released service packs:

- Microsoft® Exchange Server 2010

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. 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 that is 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 the product does not follow the prescription.

<1> [Section 3.1.4.1.3.1](#): Exchange 2010 does not include the **RequestedVersion** element.

<2> [Section 3.1.4.3](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettings** operation.

<3> [Section 3.1.4.3.1.1](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsRequestMessage** message.

<4> [Section 3.1.4.3.1.2](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsRequestMessage_Headers** message.

<5> [Section 3.1.4.3.1.3](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsResponseMessage** message.

<6> [Section 3.1.4.3.1.4](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsResponseMessage_Headers** message.

<7> [Section 3.1.4.3.2.1](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsRequestMessage** element.

<8> [Section 3.1.4.3.2.2](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsRequest** element.

<9> [Section 3.1.4.3.2.3](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsResponseMessage** element.

<10> [Section 3.1.4.3.2.4](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsResponse** element.

<11> [Section 3.1.4.3.2.5](#): The initial release version of Exchange 2010 does not include the **OrganizationRelationshipSettingsCollection** element.

<12> [Section 3.1.4.3.3.1](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsRequest** complex type.

<13> [Section 3.1.4.3.3.2](#): The initial release version of Exchange 2010 does not include the **GetOrganizationRelationshipSettingsResponse** complex type.

<14> [Section 3.1.4.4.3.3](#): The initial release version of Exchange 2010 does not include the **OrganizationRelationshipSettingsCollection** complex type.

<15> [Section 3.1.4.4.3.4](#): The initial release version of Exchange 2010 does not include the **OrganizationRelationshipSettings** complex type.

<16> [Section 3.1.4.4.3.5](#): The initial release version of Exchange 2010 does not include the **InternalEcpRetentionPolicyTagsUrl** enumerated value.

<17> [Section 3.1.4.4.3.5](#): The initial release version of Exchange 2010 does not include the **InternalEcpPublishingUrl** enumerated value.

<18> [Section 3.1.4.4.3.5](#): The initial release version of Exchange 2010 does not include the **EcpRetentionPolicyTagsUrlFragment** enumerated value.

<19> [Section 3.1.4.4.3.5](#): The initial release version of Exchange 2010 does not include the **EcpPublishingUrlFragment** enumerated value.

<20> [Section 3.1.4.4.3.5](#): The initial release version of Exchange 2010 does not include the **ExternalEcpRetentionPolicyTagsUrl** enumerated value.

<21> [Section 3.1.4.4.3.5](#): The initial release version of Exchange 2010 does not include the **ExternalEcpPublishingUrl** enumerated value.

<22> [Section 3.1.4.4.3.5](#): The **InternalServerExclusiveConnect** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

<23> [Section 3.1.4.4.3.5](#): The **ExternalServerExclusiveConnect** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

<24> [Section 3.1.4.4.3.5](#): The **ExchangeRpcUrl** configuration setting is not implemented in initial release version of Exchange 2010.

<25> [Section 3.1.4.4.3.5](#): The **ShowGalAsDefaultView** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

<26> [Section 3.1.4.4.3.5](#): The **AutoDiscoverSMTPAddress** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

<27> [Section 3.1.4.4.3.5](#): The **InteropExternalEwsUrl** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

<28> [Section 3.1.4.4.3.5](#): The **ExternalEwsVersion** configuration setting is not implemented in the initial release version of Exchange 2010.

<29> [Section 3.1.4.4.3.5](#): The **InteropExternalEwsVersion** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

<30> [Section 3.1.4.4.3.5](#): The initial release version of Exchange 2010 does not include the **MobileMailboxPolicy** enumerated value.

<31> [Section 3.1.4.4.4.1](#): Exchange 2010 SP1 does not include the target schema identified by this value.

<32> [Section 3.1.4.4.4.1](#): The initial release version of Exchange 2010 does not include the **Exchange2010_SP1** value.

9 Change Tracking

This section identifies changes that were made to the [MS-OXWSADISC] protocol document between the August 2011 and October 2011 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
1.3 Overview	Added additional configuration settings.	Y	Content updated.
3.1.4.4.3.5 tns:RequestedSettings Complex Type	Added additional configuration settings.	Y	Content updated.
6 Appendix A: Full WSDL	Updated the Web service WSDL file.	Y	Content updated.
7.1 Messages Schema	Updated the Web service .xsd file.	Y	Content updated.

10 Index

A

Abstract data model
[server](#) 18
[Applicability](#) 12
[Attribute groups](#) 17
[Attributes](#) 17

C

[Capability negotiation](#) 12
[Change tracking](#) 100
[Complex types](#) 15
[tns:Domains Complex Type](#) 16
[tns:ServerVersionInfo Complex Type](#) 16

D

Data model - abstract
[server](#) 18
[Domains Element element](#) 15

E

Elements
[Domains Element](#) 15
[ServerVersionInfo Element](#) 15
Events
[local - server](#) 78
[timer - server](#) 78

F

[Fields - vendor extensible](#) 13
[Full WSDL](#) 85

G

[Glossary](#) 7
[Groups](#) 17

I

[Implementer - security considerations](#) 84
[Index of security parameters](#) 84
[Informative references](#) 9
Initialization
[server](#) 18
[Introduction](#) 7

L

Local events
[server](#) 78

M

Message processing

[server](#) 18

Messages

[attribute groups](#) 17
[attributes](#) 17
[complex types](#) 15
[Domains Element element](#) 15
[elements](#) 15
[enumerated](#) 15
[groups](#) 17
[namespaces](#) 14
[ServerVersionInfo Element element](#) 15
[simple types](#) 17
[syntax](#) 14
[tns:Domains Complex Type complex type](#) 16
[tns:ServerVersionInfo Complex Type complex type](#) 16
[transport](#) 14

N

[Namespaces](#) 14
[Normative references](#) 8

O

Operations
[GetDomainSettings](#) 18
[GetFederationInformation](#) 31
[GetOrganizationRelationshipSettings](#) 39
[GetUserSettings](#) 48
[Overview \(synopsis\)](#) 9

P

[Parameters - security index](#) 84
[Preconditions](#) 12
[Prerequisites](#) 12
[Product behavior](#) 98

R

References
[informative](#) 9
[normative](#) 8
[Relationship to other protocols](#) 12

S

Security
[implementer considerations](#) 84
[parameter index](#) 84
Sequencing rules
[server](#) 18
Server
[abstract data model](#) 18
[GetDomainSettings operation](#) 18
[GetFederationInformation operation](#) 31
[GetOrganizationRelationshipSettings operation](#) 39

- [GetUserSettings operation](#) 48
- [initialization](#) 18
- [local events](#) 78
- [message processing](#) 18
- [sequencing rules](#) 18
- [timer events](#) 78
- [timers](#) 18
- [ServerVersionInfo Element element](#) 15
- [Simple types](#) 17
- [Standards assignments](#) 13
- Syntax
 - [messages - overview](#) 14

T

- Timer events
 - [server](#) 78
- Timers
 - [server](#) 18
- [tns:Domains Complex Type complex type](#) 16
- [tns:ServerVersionInfo Complex Type complex type](#) 16
- [Tracking changes](#) 100
- [Transport](#) 14
- Types
 - [complex](#) 15
 - [simple](#) 17

V

- [Vendor extensible fields](#) 13
- [Versioning](#) 12

W

- [WSDL](#) 85