

# [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 [Open Specification Promise](#) or the [Community Promise](#). 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](mailto: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.

**Preliminary Documentation.** This Open Specification provides documentation for past and current releases and/or for the pre-release (beta) version of this technology. This Open Specification is final documentation for past or current releases as specifically noted in the document, as applicable; it is preliminary documentation for the pre-release (beta) versions. Microsoft will release final documentation in connection with the commercial release of the updated or new version of this technology. As the documentation may change between this preliminary version and the final version of this technology, there are risks in relying on preliminary documentation. To the extent that you incur additional development obligations or any other costs as a result of relying on this preliminary documentation, you do so at your own risk.

## 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.
01/20/2012	9.0	Major	Significantly changed the technical content.
04/27/2012	9.0	No change	No changes to the meaning, language, or formatting of the technical content.
07/16/2012	10.0	Major	Significantly changed the technical content.

# Table of Contents

<b>1 Introduction .....</b>	<b>7</b>
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 .....	13
1.8 Vendor Extensible Fields .....	13
1.9 Standards Assignments .....	13
<b>2 Messages.....</b>	<b>14</b>
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 .....	17
2.2.5 Simple Types .....	17
2.2.6 Attributes .....	17
2.2.7 Groups .....	17
2.2.8 Attribute Groups .....	17
<b>3 Protocol Details .....</b>	<b>18</b>
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 .....	53
3.1.4.4.2.2 tns: GetUserSettingsResponseMessage Element .....	53
3.1.4.4.2.3 tns: GetUserSettingsRequest Element .....	54
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.....	55
3.1.4.4.2.8 tns: RequestedSettings Element.....	55
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 .....	56
3.1.4.4.2.12 tns: ArrayOfUserResponse Element.....	56
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 .....	57
3.1.4.4.2.17 tns: UserSetting Element.....	57
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 .....	58
3.1.4.4.2.22 tns: ProtocolConnectionCollectionSetting Element.....	58
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 .....	59
3.1.4.4.2.27 tns: AlternateMailbox Element.....	59
3.1.4.4.2.28 tns: ArrayOfFileExtension Element .....	59
3.1.4.4.2.29 tns: DocumentSharingLocation Element .....	59
3.1.4.4.2.30 tns: DocumentSharingLocationCollectionSetting Element .....	60
3.1.4.4.2.31 tns: DocumentSharingLocations Element .....	60
3.1.4.4.3 Complex Types .....	60
3.1.4.4.3.1 tns: GetUserSettingsRequest Complex Type.....	62
3.1.4.4.3.2 tns: AutodiscoverRequest Complex Type .....	62
3.1.4.4.3.3 tns: Users Complex Type.....	63
3.1.4.4.3.4 tns: User Complex Type .....	63
3.1.4.4.3.5 tns: RequestedSettings Complex Type .....	64
3.1.4.4.3.6 tns: GetUserSettingsResponse Complex Type .....	67
3.1.4.4.3.7 tns: AutodiscoverResponse Complex Type .....	68
3.1.4.4.3.8 tns: UserResponse Complex Type .....	69
3.1.4.4.3.9 tns: UserSettingErrors Complex Type .....	69
3.1.4.4.3.10 tns: ArrayOfUserResponse Complex Type .....	70
3.1.4.4.3.11 tns: UserSettingError Complex Type .....	70
3.1.4.4.3.12 tns: UserSettings Complex Type .....	71
3.1.4.4.3.13 tns: UserSetting Complex Type .....	71
3.1.4.4.3.14 tns: StringSetting Complex Type .....	72
3.1.4.4.3.15 tns: WebClientUrlCollectionSetting Complex Type .....	73
3.1.4.4.3.16 tns: WebClientUrls Complex Type .....	73
3.1.4.4.3.17 tns: WebClientUrl Complex Type.....	74
3.1.4.4.3.18 tns: ProtocolConnectionCollectionSetting Complex Type .....	74
3.1.4.4.3.19 tns: ProtocolConnections Complex Type .....	75
3.1.4.4.3.20 tns: ProtocolConnection Complex Type .....	75

3.1.4.4.3.21	tns:AlternateMailboxCollectionSetting Complex Type .....	76
3.1.4.4.3.22	tns:AlternateMailboxes Complex Type .....	76
3.1.4.4.3.23	tns:AlternateMailbox Complex Type .....	77
3.1.4.4.3.24	tns:ArrayOfFileExtension Complex Type.....	78
3.1.4.4.3.25	tns:DocumentSharingLocation Complex Type .....	78
3.1.4.4.3.26	tns:DocumentSharingLocationCollectionSetting Complex Type .....	79
3.1.4.4.3.27	tns:DocumentSharingLocations Complex Type.....	80
3.1.4.4.4	Simple Types .....	80
3.1.4.4.4.1	tns:ExchangeVersion Simple Type .....	80
3.1.4.4.4.2	tns:ErrorCode Simple Type .....	81
3.1.5	Timer Events .....	82
3.1.6	Other Local Events .....	82
<b>4</b>	<b>Protocol Examples.....</b>	<b>83</b>
4.1	GetDomainSettings Operation .....	83
4.2	GetFederationInformation Operation .....	84
4.3	GetUserSettings Operation.....	85
<b>5</b>	<b>Security.....</b>	<b>88</b>
5.1	Security Considerations for Implementers.....	88
5.2	Index of Security Parameters .....	88
<b>6</b>	<b>Appendix A: Full WSDL .....</b>	<b>89</b>
<b>7</b>	<b>Appendix B: Full XML Schema .....</b>	<b>93</b>
<b>8</b>	<b>Appendix C: Product Behavior .....</b>	<b>103</b>
<b>9</b>	<b>Change Tracking.....</b>	<b>106</b>
<b>10</b>	<b>Index .....</b>	<b>108</b>

# 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 can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in RFC 2119. Sections 1.5 and 1.9 are also normative but cannot contain those terms. 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

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical documents, which are updated frequently. References to other documents include a publishing year when one is available.

### 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](mailto: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>

[WSDL-SOAP] 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/>

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

## 1.2.2 Informative References

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

[MS-OXDSCLI] 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
<b>UserDisplayName</b>	The user's display name.
<b>UserDN</b>	The user's legacy <b>DN</b> .
<b>UserDeploymentId</b>	The user's deployment identifier.
<b>InternalMailboxServer</b>	The <b>fully qualified domain name (FQDN)</b> of the <b>mailbox</b> server.
<b>InternalRpcClientServer</b>	The FQDN of the RPC client server.
<b>InternalMailboxServerDN</b>	The legacy DN of the mailbox server.
<b>InternalEcpUrl</b>	The internal <b>Uniform Resource Locator (URL)</b> of the server's control panel.
<b>InternalEcpVoicemailUrl</b>	The internal URL of the server's control panel for voicemail customization.
<b>InternalEcpEmailSubscriptionsUrl</b>	The internal URL of the server's control panel for e-mail subscriptions.
<b>InternalEcpTextMessagingUrl</b>	The internal URL of the server's control panel for text messaging.
<b>InternalEcpDeliveryReportUrl</b>	The internal URL of the server's control panel for delivery reports.
<b>InternalEcpRetentionPolicyTagsUrl</b>	The internal URL of the server's control panel for retention policy tags.

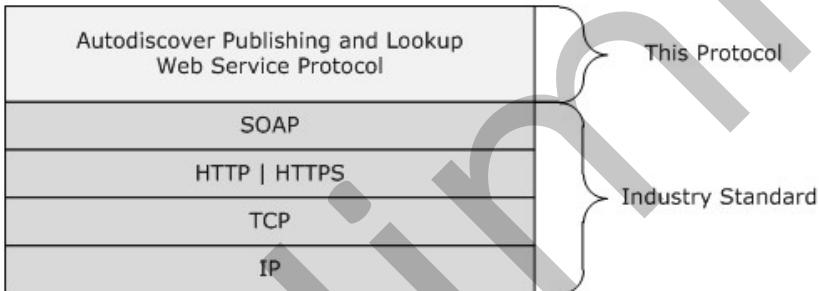
<b>Configuration setting name</b>	<b>Description</b>
<b>InternalEcpPublishingUrl</b>	The internal URL of the server's control panel for publishing.
<b>InternalEwsUrl</b>	The internal URL of the server's Web services.
<b>InternalOABUrl</b>	The internal URL of the <b>offline address book (OAB)</b> .
<b>InternalUMUrl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

Configuration setting name	Description
<b>ExternalEcpDeliveryReportUrl</b>	The external URL of the server's control panel for delivery reports.
<b>ExternalEcpRetentionPolicyTagsUrl</b>	The external URL of the server's control panel for retention policy tags.
<b>ExternalEcpPublishingUrl</b>	The external URL of the server's control panel for publishing.
<b>ExternalEwsUrl</b>	The external URL of the server's Web services.
<b>ExternalOABUrl</b>	The external URL of the OAB.
<b>ExternalUMUrl</b>	The external URL of the Unified Messaging services.
<b>ExternalWebClientUrls</b>	The external URLs of the server's Web client.
<b>CrossOrganizationSharingEnabled</b>	A value indicating that cross-organization sharing is enabled.
<b>AlternateMailboxes</b>	A collection of alternate mailboxes.
<b>CasVersion</b>	The version of the Client Access server that is serving the specified request (for example, 14.XX.YYY.ZZZ).
<b>EwsSupportedSchemas</b>	A comma-separated list of schema versions supported by the server's Web services.
<b>InternalPop3Connections</b>	The internal connection settings list for <b>POP3</b> protocol connections.
<b>ExternalPop3Connections</b>	The external connection settings list for POP3 protocol connections.
<b>InternalImap4Connections</b>	The internal connection settings list for <b>IMAP4</b> protocol connections.
<b>ExternalImap4Connections</b>	The external connection settings list for IMAP4 protocol connections.
<b>InternalSmtpConnections</b>	The internal connection settings list for <b>SMTP</b> connections.
<b>ExternalSmtpConnections</b>	The external connection settings list for SMTP connections.
<b>InternalServerExclusiveConnect</b>	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.
<b>ExternalServerExclusiveConnect</b>	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.
<b>ExchangeRpcUrl</b>	The URL that is used for <b>remote procedure calls (RPCs)</b> . This URL is internal to the server and is not to be used by clients.

Configuration setting name	Description
<b>ShowGalAsDefaultView</b>	A Boolean value that indicates whether the <b>Global Address List (GAL)</b> should be shown as the <a href="#">address book</a> . 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.
<b>AutoDiscoverSMTPAddress</b>	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.
<b>InteropExternalEwsUrl</b>	The external URL of the server's Web service <b>endpoint (4)</b> . This is the URL to a server that can serve mailboxes hosted on a server that does not have the Web services.
<b>ExternalEwsVersion</b>	The version of the Web services server that is delivering the specified request.
<b>InteropExternalEwsVersion</b>	The version of the server that the <b>InteropExternalEwsUrl</b> configuration setting points to.
<b>MobileMailboxPolicy</b>	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 2.2.5.9, and the version of the server responding to the request is identified using the **ServerVersionInfo** element, as described in [\[MS-OXWSCDATA\]](#) section 2.2.5.10.
- **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

In the following sections, the schema definition might differ from the processing rules imposed by the protocol. The WSDL in this specification provides a base description of the protocol. The schema in this specification provides a base description of the message syntax. The text that specifies the WSDL and schema might specify restrictions that reflect actual protocol behavior. For example, the schema definition might allow for an element to be **empty**, **null**, or **not present** but the behavior of the protocol as specified restricts the same elements to being **non-empty**, **not null**, or **present**.

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

Prefix	Namespace URI	Reference
<b>wsa10</b>	http://www.w3.org/2005/08/addressing	<a href="#">[WSA10]</a>
<b>wsx</b>	http://schemas.xmlsoap.org/ws/2004/09/mex	<a href="#">[WS-MetadataExchangeDir]</a>
<b>targetNamespace</b>	http://schemas.microsoft.com/exchange/2010/Autodiscover	
<b>wsdl</b>	http://schemas.xmlsoap.org/wsdl/	<a href="#">[WSDL]</a>

## 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
<b>ServerVersionInfo</b>	Specifies the message server's version number, including the major and minor version numbers and the major and minor build numbers.
<b>Domains</b>	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
<b>ServerVersionInfo</b>	Represents the message server version. This complex type is returned in the <b>SOAP header</b> of a Web services response message.
<b>Domains</b>	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
<b>MajorVersion</b>	<a href="#">xs:int [XMLSCHEMA2]</a>	Specifies the major version number for the server.
<b>MinorVersion</b>	<b>xs:int</b>	Specifies the minor version number for the server.
<b>MajorBuildNumber</b>	<b>xs:int</b>	Specifies the major build number for the server.
<b>MinorBuildNumber</b>	<b>xs:int</b>	Specifies the minor build number for the server.
<b>Version</b>	<b>xs:string [XMLSCHEMA2]</b>	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"
      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	<a href="#">xs:string [XMLSCHEMA2]</a>	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
<b>GetDomainSettings</b>	Retrieves the domain settings for the domain.
<b>GetFederationInformation</b>	Gets the configuration data for the <b>security token service (STS)</b> .
<b>GetOrganizationRelationshipSettings</b>	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.
<b> GetUserSettings</b>	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
<b>GetDomainSettingsRequestMessage</b>	Retrieves the specified settings for a domain.
<b>GetDomainSettingsRequestMessage_Headers</b>	Specifies the SOAP header for a <b>GetDomainSettings</b> operation.
<b>GetDomainSettingsResponseMessage</b>	Represents the response to a <b>GetDomainSettings</b> operation for a specified domain.
<b>GetDomainSettingsResponseMessage_Headers</b>	Specifies the SOAP header for a <b>GetDomainSettings</b> 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	<b>tns:GetDomainSettingsRequestMessage</b> element (section <a href="#">3.1.4.1.2.1</a> )	Specifies the <b>SOAP body</b> (the parameters) of a call to a <b>GetDomainSettings</b> 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	<b>tns:RequestedServerVersion</b> element (section <a href="#">3.1.4.4.2.9</a> )	Specifies the server version that the <b>GetDomainSettings</b> 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	<b>tns:GetDomainSettingsResponseMessage</b> element (section <a href="#">3.1.4.1.2.2</a> )	Specifies the SOAP body of the response to a <b>GetDomainSettings</b> 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
<b>ServerVersionInfo</b>	<b>tns:ServerVersionInfo</b> (section <a href="#">2.2.3.1</a> )	Contains the server version that processed the <b>GetDomainSettings</b> 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
<b>GetDomainSettingsRequestMessage</b>	Specifies a call to the server, requesting configuration settings for the user's domain. The <b>GetDomainSettingsResponseMessage</b> element (section <a href="#">3.1.4.1.2.2</a> ) response contains the domain settings requested in this call.
<b>GetDomainSettingsResponseMessage</b>	Returns to the caller the user's configuration settings that were requested in the <b>GetDomainSettingsRequestMessage</b> element (section <a href="#">3.1.4.1.2.1</a> ).
<b>GetDomainSettingsRequest</b>	Represents the parameters of a call to a <b>GetDomainSettings</b> operation.
<b>GetDomainSettingsResponse</b>	Represents the response to a <b>GetDomainSettings</b> operation for a domain, and returns the domain settings.
<b>ArrayOfDomainResponse</b>	Represents an array of <b>DomainResponse</b> elements (section <a href="#">3.1.4.1.2.6</a> ). Each <b>DomainResponse</b> element contains the requested settings for the specified user.
<b>DomainResponse</b>	Contains the requested settings for the specified domain.
<b>DomainSettingErrors</b>	Contains error information for settings that could not be returned.
<b>DomainSettingError</b>	Represents an error that occurred while retrieving a domain setting in response to a <b>GetDomainSettings</b> operation request.
<b>DomainSettings</b>	Represents the domain settings that were submitted in a request or returned by an Autodiscover response.

Element name	Description
<b>DomainSetting</b>	Represents the base class for all domain settings returned by the <b>GetDomainSettings</b> request.
<b>DomainStringSetting</b>	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
<b>Request</b>	<b>tns:GetDomainSettingsRequest</b> (section <a href="#">3.1.4.1.2.1</a> )	Specifies the <a href="#">GetDomainSettings</a> 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
<b>Response</b>	<b>tns:GetDomainSettingsResponse</b> (section <a href="#">3.1.4.1.2.4</a> )	Specifies the response to a <b>GetDomainSettings</b> 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
<b>GetDomainSettingsRequest</b>	Retrieves the specified setting for a domain.
<b>GetDomainSettingsResponse</b>	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 <b>GetDomainSettings</b> operation for a specified domain.
<b>ArrayOfDomainResponse</b>	Represents an array of <b>DomainResponse</b> complex type (section <a href="#">3.1.4.1.3.4</a> ) objects.
<b>DomainResponse</b>	Represents a response to a <b>GetDomainSettings</b> operation for an individual domain. The returned <b>DomainResponse</b> object contains the requested settings for the specified domain.
<b>DomainSettingErrors</b>	Represents a collection of <b>DomainSettingError</b> element (section <a href="#">3.1.4.1.3.6</a> ) objects that contain error information for settings that could not be returned.
<b>DomainSettingError</b>	Represents an error that occurred while retrieving a domain setting in response to a <b>GetDomainSettings</b> operation request.
<b>DomainSettings</b>	Represents a collection of <b>DomainSetting</b> complex type (section <a href="#">3.1.4.1.3.8</a> ) objects, the base class for all domain settings returned by the <b>GetDomainSettings</b> operation.
<b>DomainSetting</b>	Represents the domain settings to be returned by the <b>GetDomainSettings</b> operation.
<b>DomainStringSetting</b>	Represents a domain setting whose value is of type <b>string</b> .

#### 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
<b>Domains</b>	<b>tns:Domains</b> (section <a href="#">2.2.3.2</a> )	Specifies the domains for which autodiscovery is to be performed.
<b>RequestedSettings</b>	<b>tns:RequestedSettings</b> (section <a href="#">3.1.4.4.2.8</a> )	Specifies the configuration settings being requested.
<b>RequestedVersion</b>	<b>tns:ExchangeVersion</b> (section <a href="#">3.1.4.4.4.1</a> )	Specifies the specific server version the provider would like to use. <a href="#">&lt;1&gt;</a>

### 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
<b>DomainResponses</b>	<b>tns:ArrayOfDomainResponse</b> (section <a href="#">3.1.4.1.2.5</a> )	Specifies an array of <b>DomainResponse</b> 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
<b>DomainResponse</b>	<b>tns:DomainResponse</b> (section <a href="#">3.1.4.1.2.6</a> )	Specifies a response message from a <b>GetDomainSettings</b> 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
<b>DomainSettingErrors</b>	<b>tns:DomainSettingErrors</b> (section <a href="#">3.1.4.1.2.7</a> )	Specifies the error information for settings that could not be returned.
<b>DomainSettings</b>	<b>tns:DomainSettings</b> (section <a href="#">3.1.4.1.2.9</a> )	Specifies the requested settings for the specified domain.
<b>RedirectTarget</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	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
<b>DomainSettingError</b>	<b>tns:DomainSettingError</b> (section <a href="#">3.1.4.1.2.8</a> )	Specifies an error from a <b>GetDomainSettings</b> 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
<b>ErrorCode</b>	<b>tns:ErrorCode</b> (section <a href="#">3.1.4.4.2.11</a> )	Specifies the error code that is associated with the specified request.
<b>ErrorMessage</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the error message that is associated with the specified request.
<b>SettingName</b>	<b>xs:string</b>	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
<b>DomainSetting</b>	<b>tns:DomainSetting</b> (section <a href="#">3.1.4.1.2.10</a> )	Specifies the domain settings returned by the <b>GetDomainSettings</b> 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
<b>Name</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	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"

```

```

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

```

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

Element name	Type	Description
<b>Value</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	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>.

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

<https://{{host}}/autodiscover/autodiscover.svc>

- Call the **GetFederationInformation** operation at the Autodiscover endpoint (4).

- 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/GetFederatio
    nInformation" 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
<b>GetFederationInformationRequestMessage</b>	Retrieves the federation status of an organization.
<b>GetFederationInformationRequestMessage_Headers</b>	Specifies the SOAP header for a <b>GetFederationInformation</b> operation.

Message name	Description
<b>GetFederationInformationResponseMessage</b>	Represents the response to a <b>GetFederationInformation</b> operation for a specified domain.
<b>GetFederationInformationResponseMessage_Headers</b>	Specifies the SOAP header for a <b>GetFederationInformation</b> 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
<b>parameters</b>	<b>tns:GetFederationInformationRequestMessage</b> element (section <a href="#">3.1.4.2.1</a> )	Specifies the SOAP body (the parameters) of a call to a <b>GetFederationInformation</b> 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
<b>RequestedServerVersion</b>	<b>tns:RequestedServerVersion</b> element (section <a href="#">3.1.4.4.2.9</a> )	Specifies the server version that the <b>GetFederationInformation</b> 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	<b>tns:GetFederationInformationResponseMessage</b> element (section <a href="#">3.1.4.2.2.2</a> )	Specifies the SOAP body of the response to <b>GetFederationInformation</b> 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	<b>tns:ServerVersionInfo</b> (section <a href="#">2.2.3.1</a> )	Contains the server version that processed the <b>GetFederationInformation</b> 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
<b>GetFederationInformationRequestMessage</b>	Specifies a call to the server to request configuration data for the security token service (STS).
<b>GetFederationInformationResponseMessage</b>	Returns to the caller the specified federation configuration settings that were requested in the <b>GetFederationInformationRequestMessage</b>

Element name	Description
	element.
<b>GetFederationInformationRequest</b>	Represents the parameters of a call to a <b>GetFederationInformation</b> operation.
<b>GetFederationInformationResponse</b>	Represents the response to a <b>GetFederationInformation</b> 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
<b>Request</b>	<a href="#">tns:GetFederationInformationRequest</a> (section <a href="#">3.1.4.1.2.3</a> )	Specifies the <b>GetFederationInformation</b> 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.

<b>Element name</b>	<b>Type</b>	<b>Description</b>
<b>Response</b>	<b>tns:GetFederationInformationResponse</b> (section <a href="#">3.1.4.2.2.4</a> )	Specifies the response to a <b>GetFederationInformation</b> 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.

<b>Complex type name</b>	<b>Description</b>
<b>GetFederationInformationRequest</b>	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.
<b>GetFederationInformationResponse</b>	Returns to the caller the federation information that was requested in the <b>GetFederationInformationRequest</b> complex

Complex type name	Description
	type.
<b>TokenIssuer</b>	Specifies the URI and endpoint (4) for the security token service (STS).
<b>TokenIssuers</b>	Represents a collection of <b>TokenIssuer</b> 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
<b>Domain</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	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
<b>ApplicationUri</b>	<b>xs:anyURI</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the value used by the caller in the AppliesTo/EndpointReference/Address of the Request Security Token message to the security token service (STS).
<b>TokenIssuers</b>	<b>tns:TokenIssuers</b> (section <a href="#">3.1.4.2.3.4</a> )	Specifies a collection of <b>TokenIssuer</b> complex types (section <a href="#">3.1.4.2.3.3</a> ) to be used in the autodiscovery.
<b>Domains</b>	<b>tns:Domains</b> (section <a href="#">2.2.3.2</a> )	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: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
<b>Uri</b>	<b>xs:anyURI</b> <a href="#">[XMLSCHEMA2]</a>	The URI of the STS that issued the security token.
<b>Endpoint</b>	<b>xs:anyURI</b>	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
<b>TokenIssuer</b>	<b>tns:TokenIssuer</b> (section <a href="#">3.1.4.2.3.3</a> )	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
<b>GetOrganizationRelationshipSettingsRequestMessage</b>	Retrieves the organization relationship settings.
<b>GetOrganizationRelationshipSettingsRequestMessage_Headers</b>	Specifies the SOAP header for a <b>GetOrganizationRelationshipSettings</b> operation.
<b>GetOrganizationRelationshipSettingsResponseMessage</b>	Represents a response to a <b>GetOrganizationRelationshipSettings</b> operation.
<b>GetOrganizationRelationshipSettingsResponseMessage_Headers</b>	Specifies the SOAP header for a <b>GetOrganizationRelationshipSettingsResponse</b> 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	<b>tns:GetOrganizationRelationshipSettingsRequestMessage</b> element (section <a href="#">3.1.4.3.2.1</a> )	Specifies the SOAP Body (the parameters) of a call to a <b>GetOrganizationRelationshipSettings</b> 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	<a href="#">tns:RequestedServerVersion</a> (section <a href="#">3.1.4.4.2.9</a> )	Specifies the server version that the <b>GetOrganizationRelationshipSettings</b> 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	<b>tns:GetOrganizationRelationshipSettingsResponse Message</b> element (section <a href="#">3.1.4.3.2.3</a> ).	Specifies the SOAP body of the response to a <b>GetOrganizationRelationshipSettings</b> 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	<b>tns:ServerVersionInfo</b> (section <a href="#">2.2.3.1</a> )	Contains the server version that processed the <b>GetOrganizationRelationshipSettings</b> 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
<b>GetOrganizationRelationshipSettingsRequestMessage</b>	Specifies a call to the server to request the organization relationship settings for the specified user. The <b>GetOrganizationRelationshipSettingsResponseMessage</b> response message contains the organizational settings requested in this call.
<b>GetOrganizationRelationshipSettingsRequest</b>	Represents the parameters of a call to the <b>GetOrganizationRelationshipSettings</b> operation.
<b>GetOrganizationRelationshipSettingsResponseMessage</b>	Returns to the caller the organization relationship settings that were requested in the <b>GetOrganizationRelationshipSettingsRequestMessage</b> .

Element name	Description
	ssage element call.
<b>GetOrganizationRelationshipSettingsResponse</b>	Represents the response to the <b>GetOrganizationRelationshipSettings</b> operation request.
<b>OrganizationRelationshipSettingsCollection</b>	Represents a list of organization relationships that match the request.
<b>OrganizationRelationshipSettings</b>	Represents the organizational relationship returned by the <b>GetOrganizationalRelationshipSettings</b> 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
<b>Request</b>	<b>tns:GetOrganizationRelationshipSettingsRequest</b> (section <a href="#">3.1.4.3.2.2</a> )	Specifies the <a href="#">GetOrganizationRelationshipSettings</a> 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>](#)

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

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

Element name	Type	Description
<b>Response</b>	<b>tns:GetOrganizationRelationshipSettingsResponse</b> (section <a href="#">3.1.4.3.2.4</a> )	Specifies the response to a <a href="#">GetOrganizationRelationshipSettings</a> 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>](#)

```
<xss: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>](#)

```
<xss: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
<b>GetOrganizationRelationshipSettingsRequest</b>	Retrieves the specified settings for the organization relationship and contains the parameters of a call to the <b>GetOrganizationRelationshipSettings</b> operation (section <a href="#">3.1.4.3</a> ).
<b>GetOrganizationRelationshipSettingsResponse</b>	Contains a response to a call to a <b>GetOrganizationRelationshipSettings</b> operation (section <a href="#">3.1.4.3</a> ).
<b>OrganizationRelationshipSettingsCollection</b>	Represents a list of organization relationships that match the query.
<b>OrganizationRelationshipSettings</b>	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>
```

```

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

```

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

<b>Element name</b>	<b>Type</b>	<b>Description</b>
<b>Domains</b>	<a href="#">tns:Domains</a> (section <a href="#">2.2.3.2</a> )	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.

<b>Element name</b>	<b>Type</b>	<b>Description</b>
<b>OrganizationRelationshipSettingsCollection</b>	<a href="#">tns:OrganizationRelationshipSettingsCollection</a> (section <a href="#">3.1.4.1.3.5</a> )	Specifies a list of organization relationships that match the query.

### 3.1.4.3.3.3 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
<b>OrganizationRelationshipSettings</b>	<b>tns:OrganizationRelationshipSettings</b> (section <a href="#">3.1.4.3.2.5</a> )	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: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
<b>DeliveryReportEnabled</b>	<b>xs:boolean</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the <b>DeliveryReportEnabled</b> flag.
<b>DomainNames</b>	<b>tns:Domains</b> (section <a href="#">2.2.3.2</a> )	Specifies the domain names collection.
<b>FreeBusyAccessEnabled</b>	<b>xs:boolean</b>	Specifies the <b>FreeBusyAccessEnabled</b> flag.
<b>FreeBusyAccessLevel</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the <b>FreeBusyAccessLevel</b> property.
<b>MailTipsAccessEnabled</b>	<b>xs:boolean</b>	Specifies the <b>MailTipsAccessEnabled</b> flag.
<b>MailTipsAccessLevel</b>	<b>xs:string</b>	Specifies the <b>MailTipsAccessLevel</b> property.
<b>MailboxMoveEnabled</b>	<b>xs:boolean</b>	Specifies the <b>MailboxMoveEnabled</b> flag.
<b>Name</b>	<b>xs:string</b>	Specifies the name of the organization relationship.
<b>TargetApplicationUri</b>	<b>xs:anyURI</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the target application URI.
<b>TargetAutodiscoverEpr</b>	<b>xs:anyURI</b>	Specifies the <b>TargetAutodiscoverEpr</b> property.
<b>TargetSharingEpr</b>	<b>xs:anyURI</b>	Specifies the <b>TargetSharingEpr</b> 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/ 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>

```

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
<b> GetUserSettingsRequestMessage</b>	Retrieves the specified settings for a particular user.
<b> GetUserSettingsRequestMessage_Headers</b>	Specifies the SOAP header for a <b> GetUserSettings</b> operation request.
<b> GetUserSettingsResponseMessage</b>	Represents the response to a <b> GetUserSettings</b> operation call for a specified user.
<b> GetUserSettingsResponseMessage_Headers</b>	Specifies the SOAP header for a <b> GetUserSettings</b> 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	<b>tns: GetUserSettingsRequestMessage</b> element (section <a href="#">3.1.4.4.2.1</a> )	Specifies the SOAP body (the parameters) of a call to a <b> GetUserSettings</b> 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	<b>tns: RequestedServerVersion</b> element (section <a href="#">3.1.4.4.2.9</a> )	Specifies the server version that the <b> GetUserSettings</b> 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	<b>tns: GetUserSettingsResponseMessage</b> element (section <a href="#">3.1.4.4.2.2</a> )	Specifies the response to a <b> GetUserSettings</b> 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
<b>ServerVersionInfo</b>	<b>tns: ServerVersionInfo</b> (section <a href="#">2.2.3.1</a> )	Contains the server version that processed the <b> GetUserSettings</b> operation request.

#### 3.1.4.4.2 Elements

**Note** Some of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure. For information about specific differences between versions, see the behavior notes that are provided in the Product Behavior appendix.

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

Element name	Description
<b> GetUserSettingsRequestMessage</b>	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.
<b> GetUserSettingsResponseMessage</b>	Returns to the caller the user's configuration settings that were requested in the <b> GetUserSettingsRequestMessage</b> element call.
<b> GetUserSettingsRequest</b>	Represents the parameters of a call to a <b> GetUserSettings</b> operation.
<b> GetUserSettingsResponse</b>	Represents the response to a <b> GetUserSettings</b> operation for a specified user.
<b> AutodiscoverRequest</b>	Represents the base element of all Autodiscover requests.
<b> Users</b>	Represents a list of <b>User</b> elements.
<b> User</b>	Represents the user.
<b> RequestedSettings</b>	Represents the configuration settings to be returned in

<b>Element name</b>	<b>Description</b>
	the autodiscovery.
<b>RequestedServerVersion</b>	Specifies the server version that an Autodiscover operation targets.
<b>AutodiscoverResponse</b>	Represents the base class for all responses returned by the Autodiscover service.
<b>ErrorCode</b>	Defines the error codes that can be returned by the Autodiscover service.
<b>ArrayOfUserResponse</b>	Contains an array of <b>UserResponse</b> elements.
<b>UserResponse</b>	Contains the requested settings for the specified user.
<b>UserSettingErrors</b>	Contains error information for settings that could not be returned.
<b>UserSettingError</b>	Represents an error that occurred while retrieving a user setting in response to a <b> GetUserSettings</b> operation request.
<b>UserSettings</b>	Represents the base class for all user settings returned by the <b> GetUserSettings</b> operation request.
<b>UserSetting</b>	Represents the base class for all user settings returned by the <b> GetUserSettings</b> operation.
<b>StringSetting</b>	Represents a user setting the value.
<b>WebClientUrlCollectionSetting</b>	Represents a user setting whose value is a collection of Web client URLs.
<b>WebClientUrls</b>	Represents the internal and external URLs of a Web client.
<b>WebClientUrl</b>	Represents a URL of a Web client.
<b>ProtocolConnectionCollectionSetting</b>	Represents a collection of server protocol connection settings.
<b>ProtocolConnections</b>	Represents a collection of protocol connections.
<b>ProtocolConnection</b>	Represents the e-mail protocol connection settings for POP3, IMAP4, and SMTP.
<b>AlternateMailboxCollectionSetting</b>	Represents a collection of alternate mailbox settings.
<b>AlternateMailboxes</b>	Represents a collection of alternate mailboxes.
<b>AlternateMailbox</b>	Represents an alternate mailbox, such as an archived mailbox.
<b>ArrayOfFileExtension</b>	Represents a list of valid file extensions for a document sharing location. <a href="#">&lt;16&gt;</a>
<b>DocumentSharingLocation</b>	Represents a document sharing location and provides metadata for the location. <a href="#">&lt;17&gt;</a>
<b>DocumentSharingLocationCollectionSetting</b>	Represents a collection of document sharing location

Element name	Description
	settings. <a href="#">&lt;18&gt;</a>
<b>DocumentSharingLocations</b>	Represents a list of document sharing locations. <a href="#">&lt;19&gt;</a>

### 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>
```

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

Element name	Type	Description
<b>Request</b>	<a href="#">tns: GetUserSettingsRequest</a> (section <a href="#">3.1.4.4.2.3</a> )	Specifies the <a href="#"> GetUserSettings</a> 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
<b>Response</b>	<a href="#">tns: GetUserSettingsResponse</a> (section <a href="#">3.1.4.4.2.4</a> )	Specifies the response to a <b> GetUserSettings</b> 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 [3.1.4.4.2](#), 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.

#### 3.1.4.4.2.28 tns:ArrayOfFileExtension Element

**Note** All of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure.

The **ArrayOfFileExtension** element represents a list of file extensions that are valid in a document sharing location.[<20>](#)

```
<xs:element name="ArrayOfFileExtension"
    type="tns:ArrayOfFileExtension"
/>
```

#### 3.1.4.4.2.29 tns:DocumentSharingLocation Element

**Note** All of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure.

The **DocumentSharingLocation** element represents a document sharing location and provides configuration information for the location.[<21>](#)

```
<xs:element name="DocumentSharingLocation"
    type="tns:DocumentSharingLocation"
/>
```

### 3.1.4.4.2.30 tns:DocumentSharingLocationCollectionSetting Element

**Note** All of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure.

The **DocumentSharingLocationCollectionSetting** element represents a user setting, the value for which is a collection of sharing locations for documents.[<22>](#)

```
<xs:element name="DocumentSharingLocationCollectionSetting"
    type="tns:DocumentSharingLocationCollectionSetting"
/>
```

### 3.1.4.4.2.31 tns:DocumentSharingLocations Element

**Note** All of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure.

The **DocumentSharingLocations** element represents a list of sharing locations.[<23>](#)

```
<xs:element name="DocumentSharingLocationCollectionSetting"
    type="tns:DocumentSharingLocationCollectionSetting"
/>
```

## 3.1.4.4.3 Complex Types

**Note** Some of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure. For information about specific differences between versions, see the behavior notes that are provided in the Product Behavior appendix.

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

Complex type name	Description
<b> GetUserSettingsRequest</b>	Specifies a request message for the <b> GetUserSettings</b> operation. Retrieves the specified settings for one or more users.
<b> AutodiscoverRequest</b>	Represents the base class for all requests made to the Autodiscover service.
<b> Users</b>	Represents a collection of <b>User</b> elements denoting users whose settings are to be retrieved.
<b> User</b>	Represents a user whose settings are to be retrieved. The user is identified by SMTP address or legacy DN.
<b> RequestedSettings</b>	Specifies the configuration settings to be returned by the server for the <b> GetUserSettings</b> operation.
<b> GetUserSettingsResponse</b>	Represents a response that contains an array of user responses.
<b> AutodiscoverResponse</b>	Represents the base class for all responses returned by the Autodiscover service.

Complex type name	Description
<b>UserResponse</b>	Represents a response to a <b> GetUserSettings</b> operation for a specified user. The server returns only the configuration settings requested by the client.
<b>UserSettingErrors</b>	Represents a collection of <b>UserSettingError</b> elements that contains error information for settings that could not be returned.
<b>ArrayOfUserResponse</b>	Represents an array of <b>UserResponse</b> elements that contains the responses for each specified user.
<b>UserSettingError</b>	Represents a user setting error that resulted from a <b> GetUserSettings</b> operation request.
<b>UserSettings</b>	Represents a collection of <b>UserSetting</b> elements (section <a href="#">3.1.4.4.2.17</a> ) all user settings that are returned by the <b> GetUserSettings</b> operation.
<b>UserSetting</b>	Represents the user settings to be returned by the <b> GetUserSettings</b> operation.
<b>StringSetting</b>	Represents a user setting value.
<b>WebClientUrlCollectionSetting</b>	Represents a collection of <b> WebClientUrls</b> elements.
<b>WebClientUrls</b>	Represents a collection of <b> WebClientUrl</b> elements that denote the server's Web clients.
<b>WebClientUrl</b>	Represents the URL of the server's Web client.
<b>ProtocolConnectionCollectionSetting</b>	Represents a collection of <b> ProtocolConnection</b> elements.
<b>ProtocolConnections</b>	Represents a collection of <b> ProtocolConnection</b> elements that denote the internal and external protocol connections for the server's Web client.
<b>ProtocolConnection</b>	Represents the e-mail protocol connection settings for POP3, IMAP4, and SMTP protocols.
<b>AlternateMailboxCollectionSetting</b>	Represents a collection of <b> AlternateMailboxes</b> elements.
<b>AlternateMailboxes</b>	Represents a collection of <b> AlternateMailbox</b> elements.
<b>AlternateMailbox</b>	Represents an alternate mailbox.
<b>ArrayOfFileExtension</b>	Represents a list of valid file extensions for a document sharing location. <a href="#">&lt;24&gt;</a>
<b>DocumentSharingLocation</b>	Represents a document sharing location and provides metadata for the location. <a href="#">&lt;25&gt;</a>
<b>DocumentSharingLocationCollectionSetting</b>	Represents a collection of document sharing location settings. <a href="#">&lt;26&gt;</a>
<b>DocumentSharingLocations</b>	Represents a list of document sharing locations. <a href="#">&lt;27&gt;</a>

### 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:complexContent>
</xs:complexType>
```

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

Element name	Type	Description
<b>Users</b>	<a href="#">tns:Users</a> (section <a href="#">3.1.4.4.2.6</a> )	Specifies the e-mail addresses of the users whose settings are to be retrieved.
<b>RequestedSettings</b>	<a href="#">tns:RequestedSettings</a> (section <a href="#">3.1.4.4.2.8</a> )	Specifies the configuration settings being requested.
<b>RequestedVersion</b>	<a href="#">tns:ExchangeVersion</a> (section <a href="#">3.1.4.4.1</a> )	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
<b>User</b>	tns:User (section <a href="#">3.1.4.4.2.7</a> )	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
<b>Mailbox</b>	<b>xs:string</b>	Specifies the e-mail address of the user whose settings are to

Element name	Type	Description
	<a href="#">[XMLSCHEMA2]</a>	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
<b>Setting</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	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
<b>UserDisplayName</b>	The user's display name.
<b>UserDN</b>	The user's legacy DN.
<b>UserDeploymentId</b>	The user's deployment identifier.
<b>InternalMailboxServer</b>	The fully qualified domain name (FQDN) of the mailbox server.
<b>InternalRpcClientServer</b>	The FQDN of the RPC client server.
<b>InternalMailboxServerDN</b>	The legacy DN of the mailbox server.
<b>InternalEcpUrl</b>	The internal URL of the server's control panel.
<b>InternalEcpVoicemailUrl</b>	The internal URL of the server's control panel for voice mail customization.
<b>InternalEcpEmailSubscriptionsUrl</b>	The internal URL of the server's control panel for e-mail subscriptions.

<b>Configuration setting name</b>	<b>Description</b>
<b>InternalEcpTextMessagingUrl</b>	The internal URL of the server's control panel for text messaging.
<b>InternalEcpDeliveryReportUrl</b>	The internal URL of the server's control panel for delivery reports.
<b>InternalEcpRetentionPolicyTagsUrl</b>	The internal URL of the server's control panel for retention policy tags. <a href="#"><u>&lt;28&gt;</u></a>
<b>InternalEcpPublishingUrl</b>	The internal URL of the server's control panel for publishing. <a href="#"><u>&lt;29&gt;</u></a>
<b>InternalEwsUrl</b>	The internal URL of the server's Web services.
<b>InternalOABUrl</b>	The internal URL of the offline address book (OAB).
<b>InternalUMUrl</b>	The internal URL of the Unified Messaging services.
<b>InternalWebClientUrls</b>	A collection of the internal URLs of the server's Web client.
<b>MailboxDN</b>	The DN of the mailbox database of the user's mailbox.
<b>PublicFolderServer</b>	The name of the Public Folders server.
<b>ActiveDirectoryServer</b>	The name of the directory service server.
<b>ExternalMailboxServer</b>	The name of the RPC over HTTP server.
<b>ExternalMailboxServerRequiresSSL</b>	A value that indicates whether the RPC over HTTP server SSL.
<b>ExternalMailboxServerAuthenticationMethods</b>	The authentication methods supported by the RPC over HTTP server.
<b>EcpVoicemailUrlFragment</b>	The URL fragment of the server's control panel for voice mail customization.
<b>EcpEmailSubscriptionsUrlFragment</b>	The URL fragment of the server's control panel for e-mail subscriptions.
<b>EcpTextMessagingUrlFragment</b>	The URL fragment of the server's control panel for text messaging.
<b>EcpDeliveryReportUrlFragment</b>	The URL fragment of the server's control panel for delivery reports.
<b>EcpRetentionPolicyTagsUrlFragment</b>	The URL fragment of the server's control panel for retention policy tags. <a href="#"><u>&lt;30&gt;</u></a>
<b>EcpPublishingUrlFragment</b>	The URL fragment of the server's control panel for publishing. <a href="#"><u>&lt;31&gt;</u></a>
<b>ExternalEcpUrl</b>	The external URL of the server's control panel.
<b>ExternalEcpVoicemailUrl</b>	The external URL of the server's control panel for voice mail customization.

<b>Configuration setting name</b>	<b>Description</b>
<b>ExternalEcpEmailSubscriptionsUrl</b>	The external URL of the server's control panel for e-mail subscriptions.
<b>ExternalEcpTextMessagingUrl</b>	The external URL of the server's control panel for text messaging.
<b>ExternalEcpDeliveryReportUrl</b>	The external URL of the server's control panel for delivery reports.
<b>ExternalEcpRetentionPolicyTagsUrl</b>	The external URL of the server's control panel for retention policy tags. <a href="#">&lt;32&gt;</a>
<b>ExternalEcpPublishingUrl</b>	The external URL of the server's control panel for publishing. <a href="#">&lt;33&gt;</a>
<b>ExternalEwsUrl</b>	The external URL of the server's Web services.
<b>ExternalOABUrl</b>	The external URL of the OAB.
<b>ExternalUMUrl</b>	The external URL of the Unified Messaging services.
<b>ExternalWebClientUrls</b>	The external URLs of the server's Web client.
<b>CrossOrganizationSharingEnabled</b>	A value that indicates that cross-organization sharing is enabled.
<b>AlternateMailboxes</b>	A collection of alternate mailboxes.
<b>CasVersion</b>	The version of the mailbox server that is serving the specified request (for example, 14.XX.YYY.ZZZ).
<b>EwsSupportedSchemas</b>	A comma-separated list of schema versions supported by the server's Web services.
<b>InternalPop3Connections</b>	The internal connection settings list for POP3 connections.
<b>ExternalPop3Connections</b>	The external connection settings list for POP3 connections.
<b>InternalImap4Connections</b>	The internal connection settings list for IMAP4 connections.
<b>ExternalImap4Connections</b>	The external connection settings list for IMAP4 connections.
<b>InternalSmtpConnections</b>	The internal connection settings list for SMTP connections.
<b>ExternalSmtpConnections</b>	The external connection settings list for SMTP connections.
<b>InternalServerExclusiveConnect</b>	The internal server exclusive connect flag. If this is set to "Off", clients SHOULD NOT connect to the server by means of this protocol. <a href="#">&lt;34&gt;</a>
<b>ExternalServerExclusiveConnect</b>	The external server exclusive connect flag. If this is set to "On", clients SHOULD connect to the server by means of this protocol. <a href="#">&lt;35&gt;</a>

Configuration setting name	Description
<b>ExchangeRpcUrl</b>	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. <a href="#">36</a>
<b>ShowGalAsDefaultView</b>	A Boolean value that indicates whether the GAL should be shown as the <b>address book</b> . 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. <a href="#">37</a>
<b>AutoDiscoverSMTPAddress</b>	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. <a href="#">38</a>
<b>InteropExternalEwsUrl</b>	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. <a href="#">39</a>
<b>ExternalEwsVersion</b>	The version of the Web services server that is delivering the specified request. <a href="#">40</a>
<b>InteropExternalEwsVersion</b>	The version of the server that the <b>InteropExternalEwsUrl</b> configuration setting points to. <a href="#">41</a>
<b>MobileMailboxPolicy</b>	The mobile mailbox policy settings. <a href="#">42</a>

### 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:element>
    </xs:sequence>
  </xs:extension>
</xs:complexContent>

```

```

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

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

Element name	Type	Description
<b>UserResponses</b>	<a href="#">tns:ArrayOfUserResponse</a> (section <a href="#">3.1.4.4.2.12</a> )	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
<b>ErrorCode</b>	<a href="#">tns:ErrorCode</a> (section <a href="#">3.1.4.4.2.11</a> )	Specifies the error code that is associated with this response.
<b>ErrorMessage</b>	<a href="#">xs:string</a> [ <a href="#">XMLSCHEMA2</a> ]	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
<b>RedirectTarget</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the target of the redirection URL or e-mail address.
<b>UserSettingErrors</b>	<a href="#">tns:UserSettingErrors</a> (section <a href="#">3.1.4.4.2.14</a> )	Specifies the error information for settings that could not be returned.
<b>UserSettings</b>	<a href="#">tns:UserSettings</a> (section <a href="#">3.1.4.4.2.16</a> )	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
<b>UserSettingError</b>	<a href="#">tns:UserSettingError</a> (section <a href="#">3.1.4.4.2.15</a> )	Specifies an error from a <b> GetUserSettings</b> 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
<b>UserResponse</b>	<a href="#">tns:UserResponse</a> (section <a href="#">3.1.4.4.2.13</a> )	Specifies a response from a <b> GetUserSettings</b> 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
<b>ErrorCode</b>	<b>tns:ErrorCode</b> (section <a href="#">3.1.4.4.2.11</a> )	Specifies the error code that is associated with the specified request.
<b>ErrorMessage</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the error message that is associated with the specified request.
<b>SettingName</b>	<b>xs:string</b>	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>
```

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

Element name	Type	Description
<b>UserSetting</b>	<b>tns:UserSetting</b> (section <a href="#">3.1.4.4.2.17</a> )	Specifies the user settings that are returned by the <b> GetUserSettings</b> 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 <a href="#">[XMLSCHEMA2]</a>	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 <a href="#">[XMLSCHEMA2]</a>	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
<b>WebClientUrls</b>	<b>tns:WebClientUrls</b> (section <a href="#">3.1.4.4.2.20</a> )	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
<b>WebClientUrl</b>	<b>tns:WebClientUrl</b> (section <a href="#">3.1.4.4.2.21</a> )	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
<b>AuthenticationMethods</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the authentication methods.
<b>Url</b>	<b>xs:string</b>	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
<b>ProtocolConnections</b>	<b>tns:ProtocolConnections</b> (section <a href="#">3.1.4.4.2.23</a> )	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
<b>ProtocolConnection</b>	<b>tns:ProtocolConnection</b> (section <a href="#">3.1.4.4.2.24</a> )	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
<b>Hostname</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the host name portion of the computer's full name.
<b>Port</b>	<b>xs:int</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the port number to be used for the specified protocol.
<b>EncryptionMethod</b>	<b>xs:string</b>	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>
```

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

Element name	Type	Description
<b>AlternateMailboxes</b>	<b>tns:AlternateMailboxes</b> (section <a href="#">3.1.4.4.2.26</a> )	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
<b>AlternateMailbox</b>	<b>tns:AlternateMailbox</b> (section <a href="#">3.1.4.4.2.27</a> )	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: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
<b>Type</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the alternate mailbox type.
<b>DisplayName</b>	<b>xs:string</b>	Specifies the alternate mailbox display name.
<b>LegacyDN</b>	<b>xs:string</b>	Specifies the alternate mailbox legacy DN.
<b>Server</b>	<b>xs:string</b>	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.

### 3.1.4.4.3.24 tns:ArrayOfFileExtension Complex Type

**Note** All of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure.

The **ArrayOfFileExtension** complex type represents a list of file extensions for a document sharing location.[<43>](#)

```
<xs:complexType name="ArrayOfFileExtension">
  <xs:sequence>
    <xs:element name="FileExtension"
      minOccurs="1" maxOccurs="unbounded"
      type="xs:string"
    />
  </xs:sequence>
</xs:complexType>
```

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

Element name	Type	Description
<b>FileExtension</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the file extension.

### 3.1.4.4.3.25 tns:DocumentSharingLocation Complex Type

**Note** All of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure.

The **DocumentSharingLocation** complex type specifies location and metadata information for a document sharing location.[<44>](#)

```
<xs:complexType name="DocumentSharingLocation">
  <xs:sequence>
    <xs:element name="ServiceUrl" type="xs:string" />
    <xs:element name="LocationUrl" type="xs:string" />
    <xs:element name="DisplayName" type="xs:string" />
    <xs:element name="SupportedFileExtensions" type="tns:ArrayOfFileExtension" />
    <xs:element name="ExternalAccessAllowed" type="xs:boolean" />
    <xs:element name="AnonymousAccessAllowed" type="xs:boolean" />
    <xs:element name="CanModifyPermissions" type="xs:boolean" />
    <xs:element name="IsDefault" type="xs:boolean" />
  </xs:sequence>
</xs:complexType>
```

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

Element name	Type	Description
<b>ServiceUrl</b>	<b>xs:string</b> <a href="#">[XMLSCHEMA2]</a>	Specifies the URL of the document sharing Web service.

Element name	Type	Description
<b>LocationUrl</b>	<b>xs:string</b>	Specifies the URL of the document sharing location.
<b>DisplayName</b>	<b>xs:string</b>	Specifies the name of the document sharing location to use in the user interface.
<b>SupportedFileExtensions</b>	<b>tns:ArrayOfFileExtension</b> (section <a href="#">3.1.4.4.2.28</a> )	Specifies the file extensions that can be stored in the document sharing location.
<b>ExternalAccessAllowed</b>	<b>xs:boolean</b> <a href="#">[XMLSCHEMA2]</a>	Specifies whether the document sharing location is available to outside connections.
<b>AnonymousAccessAllowed</b>	<b>xs:boolean</b>	Specifies whether access to the sharing location requires an authenticated user.
<b>CanModifyPermissions</b>	<b>xs:boolean</b>	Specifies whether the user can modify access permissions to the document sharing location.
<b>IsDefault</b>	<b>xs:boolean</b>	Specifies whether the document sharing location is the user's default sharing location.

### 3.1.4.4.3.26 **tns:DocumentSharingLocationCollectionSetting** Complex Type

**Note** All of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure.

The **DocumentSharingCollectionSetting** complex type represents a collection of **DocumentSharingLocations** elements, as specified in section [3.1.4.4.2.31](#). The **DocumentSharingCollectionSetting** complex type extends the **UserSetting** complex type, as specified in section [3.1.4.4.3.13.<45>](#)

```

<xs:complexType name="DocumentSharingLocationCollectionSetting">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:UserSetting">
      <xs:sequence>
        <xs:element name="DocumentSharingLocations"
          type="tns:DocumentSharingLocations"
        />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

```

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

Element name	Type	Description
<b>DocumentSharingLocations</b>	<b>tns:DocumentSharingLocations</b>	Specifies the location and

Element name	Type	Description
	(section <a href="#">3.1.4.4.2.31</a> )	metadata for a list of document sharing locations.

### 3.1.4.4.3.27 tns:DocumentSharingLocations Complex Type

**Note** All of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure.

The **DocumentSharingLocations** complex type specifies a list of **DocumentSharingLocation** elements, as specified in section [3.1.4.4.2.29.<46>](#)

```
<xss:complexType name="DocumentSharingLocations">
  <xss:sequence>
    <xss:element name="DocumentSharingLocation"
      type="tns:DocumentSharingLocation"
      minOccurs="0" maxOccurs="unbounded"
    />
  </xss:sequence>
</xss:complexType>
```

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

Element name	Type	Description
<b>DocumentSharingLocation</b>	<b>tns:DocumentSharingLocation</b> (section <a href="#">3.1.4.4.2.29</a> )	Specifies the location and metadata for a document sharing location.

## 3.1.4.4 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
<b>ExchangeVersion</b>	Defines the server versions used with this protocol.
<b>ErrorCode</b>	Specifies the error codes that can be returned by the Autodiscover service.

### 3.1.4.4.4.1 tns:ExchangeVersion Simple Type

**Note** Some of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure. For information about specific differences between versions, see the behavior notes that are provided in the Product Behavior appendix.

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

```
<xss:simpleType name="ExchangeVersion">
  <xss:restriction
    base="xss:string"
  >
    <xss: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
<b>Exchange2010</b>	Specifies a version of the target Web service schema. <a href="#">47</a>
<b>Exchange2010_SP1</b>	Specifies a version of the target Web service schema. <a href="#">48</a> <a href="#">49</a>
<b>Exchange2012</b>	Specifies a version of the target Web service schema. <a href="#">50</a>

#### 3.1.4.4.4.2 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.

<b>Value</b>	<b>Meaning</b>
<b>NoError</b>	Indicates that there was no error.
<b>RedirectAddress</b>	Indicates that the caller must follow the e-mail address redirection that was returned by the Autodiscover service.
<b>RedirectUrl</b>	Indicates that the caller must follow the URL redirection that was returned by the Autodiscover service.
<b>InvalidUser</b>	Indicates that the user name that was passed in the request is invalid.
<b>InvalidRequest</b>	Indicates that the request is invalid.
<b>InvalidSetting</b>	Indicates that the specified setting is invalid.
<b>SettingIsNotAvailable</b>	Indicates that a specified setting is not available.
<b>ServerBusy</b>	Indicates that the server is too busy to process the request.
<b>InvalidDomain</b>	Indicates that the requested domain is not valid.
<b>NotFederated</b>	Indicates that the organization is not federated.
<b>InternalServerError</b>	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:MinorBuildNumber>20</h:MinorBuildNumber>
<h:Version>Exchange2010</h:Version>
</h:ServerVersionInfo>
</s:Header>
<s:Body>
<GetDomainSettingsResponseMessage xmlns="http://schemas.microsoft.com/exch
ange/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
e>
</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.byfcxu-
            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/">
    <ns1:Header xmlns:ns1="http://www.w3.org/2005/08/addressing">
        <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>
    </ns1: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

```

```

scover/ GetUserSettings</wsa:Action>
    <wsa:To>https://autodiscover.exchange.microsoft.com/autodiscover/autodiscover.svc</wsa:To>
    </soap:Header>
    <soap:Body>
        <a: GetUserSettingsRequestMessage xmlns:a="http://schemas.microsoft.com/exchange/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/Autodiscover" 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/exchange/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>

```

```

<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-alce-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

For ease of implementation, the full WSDL and schema are provided in this appendix.

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
    xmlns:wsu="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: msc="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: wsx="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 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>

```

```

        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>
```

Preliminary

---

92 / 109

[MS-OXWSADISC] — v20120630  
Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol Specification

Copyright © 2012 Microsoft Corporation.

Release: July 16, 2012

## 7 Appendix B: Full XML Schema

**Note** Some of the information in this section is subject to change because it applies to a preliminary implementation of the protocol or structure. For information about specific differences between versions, see the behavior notes that are provided in the Product Behavior appendix.

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

This file has 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.

```
<?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: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:enumeration value="Exchange2012" />
</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: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: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: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="DocumentSharingLocationCollectionSetting">
    <xs:complexContent mixed="false">
        <xs:extension base="tns:UserSetting">
            <xs:sequence>
                <xs:element name="DocumentSharingLocations" type="tns:DocumentSharingLocations" />
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
<xs:element name="DocumentSharingLocationCollectionSetting"
type="tns:DocumentSharingLocationCollectionSetting" />
<xs:complexType name="DocumentSharingLocations">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="DocumentSharingLocation"
type="tns:DocumentSharingLocation" />
    </xs:sequence>
</xs:complexType>
<xs:element name="DocumentSharingLocations" type="tns:DocumentSharingLocations" />
<xs:complexType name="DocumentSharingLocation">
    <xs:sequence>
        <xs:element name="ServiceUrl" type="xs:string" />
        <xs:element name="LocationUrl" type="xs:string" />
        <xs:element name="DisplayName" type="xs:string" />
        <xs:element name="SupportedFileExtensions" type="tns:ArrayOfFileExtension" />
        <xs:element name="ExternalAccessAllowed" type="xs:boolean" />
        <xs:element name="AnonymousAccessAllowed" type="xs:boolean" />
        <xs:element name="CanModifyPermissions" type="xs:boolean" />
        <xs:element name="IsDefault" type="xs:boolean" />
    </xs:sequence>
</xs:complexType>
<xs:element name="DocumentSharingLocation" type="tns:DocumentSharingLocation" />
<xs:complexType name="ArrayOfFileExtension">
    <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="unbounded" name="FileExtension" type="xs:string"
    </xs:sequence>
</xs:complexType>

```

```

<xs:element name="ArrayOfFileExtension" type="tns:ArrayOfFileExtension" />
<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: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: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="TokenIssuers" nillable="true"
type="tns:TokenIssuers" />
                    <xs:element minOccurs="0" name="Domains" nillable="true" type="tns:Domains" />
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="TokenIssuers">
        <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="unbounded" name="TokenIssuer" nillable="true"
type="tns:TokenIssuer" />
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="TokenIssuer">
        <xs:sequence>
            <xs:element minOccurs="0" name="Uri" nillable="true" type="xs:anyURI" />
            <xs:element minOccurs="0" name="Endpoint" nillable="true" type="xs:anyURI" />
        </xs:sequence>
    </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: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>
```

Preliminary

---

102 / 109

[MS-OXWSADISC] — v20120630  
*Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol Specification*

*Copyright © 2012 Microsoft Corporation.*

*Release: July 16, 2012*

## 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
- Microsoft® Exchange Server 2013 Preview
- Microsoft® Lync® Server 2013 Preview
- Microsoft® SharePoint® Server 2013 Preview

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 3.1.4.3.3.3:](#) The initial release version of Exchange 2010 does not include the **OrganizationRelationshipSettingsCollection** complex type.

[<15> Section 3.1.4.3.3.4:](#) The initial release version of Exchange 2010 does not include the **OrganizationRelationshipSettings** complex type.

[<16> Section 3.1.4.4.2:](#) Exchange 2010 does not implement the **ArrayOfFileExtension** element.

[<17> Section 3.1.4.4.2:](#) Exchange 2010 does not implement the **DocumentSharingLocation** element.

[<18> Section 3.1.4.4.2:](#) Exchange 2010 does not implement the **DocumentSharingLocationCollectionSetting** element.

[<19> Section 3.1.4.4.2:](#) Exchange 2010 does not implement the **DocumentSharingLocations** element.

[<20> Section 3.1.4.4.2.28:](#) Exchange 2010 does not implement the **ArrayOfFileExtension** element.

[<21> Section 3.1.4.4.2.29:](#) Exchange 2010 does not implement the **DocumentSharingLocation** element.

[<22> Section 3.1.4.4.2.30:](#) Exchange 2010 does not implement the **DocumentSharingLocationCollectionSetting** element.

[<23> Section 3.1.4.4.2.31:](#) Exchange 2010 does not implement the **DocumentSharingLocations** element.

[<24> Section 3.1.4.4.3:](#) Exchange 2010 does not implement the **ArrayOfFileExtension** complex type.

[<25> Section 3.1.4.4.3:](#) Exchange 2010 does not implement the **DocumentSharingLocation** complex type.

[<26> Section 3.1.4.4.3:](#) Exchange 2010 does not implement the **DocumentSharingLocationCollectionSetting** complex type.

[<27> Section 3.1.4.4.3:](#) Exchange 2010 does not implement the **DocumentSharingLocations** complex type.

[<28> Section 3.1.4.4.3.5:](#) The initial release version of Exchange 2010 does not include the **InternalEcpRetentionPolicyTagsUrl** enumerated value.

[<29> Section 3.1.4.4.3.5:](#) The initial release version of Exchange 2010 does not include the **InternalEcpPublishingUrl** enumerated value.

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

[<31> Section 3.1.4.4.3.5:](#) The initial release version of Exchange 2010 does not include the **EcpPublishingUrlFragment** enumerated value.

[<32> Section 3.1.4.4.3.5:](#) The initial release version of Exchange 2010 does not include the **ExternalEcpRetentionPolicyTagsUrl** enumerated value.

[<33> Section 3.1.4.4.3.5:](#) The initial release version of Exchange 2010 does not include the **ExternalEcpPublishingUrl** enumerated value.

[<34> Section 3.1.4.4.3.5:](#) The **InternalServerExclusiveConnect** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

[<35> Section 3.1.4.4.3.5:](#) The **ExternalServerExclusiveConnect** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

[<36> Section 3.1.4.4.3.5:](#) The **ExchangeRpcUrl** configuration setting is not implemented in initial release version of Exchange 2010.

[<37> Section 3.1.4.4.3.5:](#) The **ShowGalAsDefaultView** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

[<38> Section 3.1.4.4.3.5:](#) The **AutoDiscoverSMTPAddress** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

[<39> Section 3.1.4.4.3.5:](#) The **InteropExternalEwsUrl** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

[<40> Section 3.1.4.4.3.5:](#) The **ExternalEwsVersion** configuration setting is not implemented in the initial release version of Exchange 2010.

[<41> Section 3.1.4.4.3.5:](#) The **InteropExternalEwsVersion** configuration setting is not implemented in Exchange 2010 or Exchange 2010 SP1.

[<42> Section 3.1.4.4.3.5:](#) The initial release version of Exchange 2010 does not include the **MobileMailboxPolicy** enumerated value.

[<43> Section 3.1.4.4.3.24:](#) Exchange 2010 does not implement the **ArrayOfFileExtension** complex type.

[<44> Section 3.1.4.4.3.25:](#) Exchange 2010 does not implement the **DocumentSharingLocation** complex type.

[<45> Section 3.1.4.4.3.26:](#) Exchange 2010 does not implement the **DocumentSharingCollectionSetting** complex type.

[<46> Section 3.1.4.4.3.27:](#) Exchange 2010 does not implement the **DocumentSharingLocations** complex type.

[<47> Section 3.1.4.4.4.1:](#) Exchange 2010 SP1 and Exchange 2013 Preview do not include the target schema identified by this value.

[<48> Section 3.1.4.4.4.1:](#) The initial release version of Exchange 2010 does not include the **Exchange2010\_SP1** value.

[<49> Section 3.1.4.4.4.1:](#) Exchange 2013 Preview does not include the target schema identified by this value.

[<50> Section 3.1.4.4.4.1:](#) Exchange 2010 does not include the **Exchange2012** value.

## 9 Change Tracking

This section identifies changes that were made to the [MS-OXWSADISC] protocol document between the April 2012 and July 2012 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](mailto:protocol@microsoft.com).

<b>Section</b>	<b>Tracking number (if applicable) and description</b>	<b>Major change (Y or N)</b>	<b>Change type</b>
<a href="#">8</a> <a href="#">Appendix C: Product Behavior</a>	Added Lync Server 2013 Preview and SharePoint Server 2013 Preview to the list of products.	Y	Content updated.

## 10 Index

### A

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

### C

[Capability negotiation](#) 13  
[Change tracking](#) 106  
[Complex types](#) 15  
    [tns:Domains Complex Type](#) 17  
    [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](#) 82  
    [timer - server](#) 82

### F

[Fields - vendor extensible](#) 13  
[Full WSDL](#) 89  
[Full XML Schema](#) 93

### G

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

### I

[Implementer - security considerations](#) 88  
[Index of security parameters](#) 88  
[Informative references](#) 9  
Initialization  
    [server](#) 18  
[Introduction](#) 7

### L

Local events  
[server](#) 82

### 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](#) 17  
    [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](#) 88  
[Preconditions](#) 12  
[Prerequisites](#) 12  
[Product behavior](#) 103

### R

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

### S

Security  
    [implementer considerations](#) 88  
    [parameter index](#) 88  
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](#) 82  
[message\\_processing](#) 18  
[sequencing rules](#) 18  
[timer events](#) 82  
[timers](#) 18  
[ServerVersionInfo Element element](#) 15  
[Simple types](#) 17  
[Standards assignments](#) 13  
Syntax  
[messages - overview](#) 14

## T

Timer events  
[server](#) 82  
Timers  
[server](#) 18  
[tns:Domains Complex Type complex type](#) 17  
[tns:ServerVersionInfo Complex Type complex type](#)  
16  
[Tracking changes](#) 106  
[Transport](#) 14  
Types  
[complex](#) 15  
[simple](#) 17

## V

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

## W

[WSDL](#) 89

## X

[XML Schema](#) 93