[MS-SPEMAWS]:
SharePoint E-Mail Web Service Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
04/04/2008	0.1		Initial Availability
06/27/2008	1.0	Major	Revised and edited the technical content
08/15/2008	1.01	Editorial	Revised and edited the technical content
12/12/2008	1.02	Editorial	Revised and edited the technical content
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11/06/2009	1.05	Editorial	Revised and edited the technical content
02/19/2010	2.0	Minor	Updated the technical content
03/31/2010	2.01	Editorial	Revised and edited the technical content
04/30/2010	2.02	Editorial	Revised and edited the technical content
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06/29/2010	2.04	Minor	Clarified the meaning of the technical content.
07/23/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
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12/17/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.

Table of Contents

1   Introduction

This document specifies the SharePoint E-mail Web Service Protocol, which is a SOAP-based protocol that enables system administrators to manage information about contacts and groups of contacts that are controlled by Active Directory Domain Services (AD DS) or a directory service that is compatible with AD DS. This protocol also enables system administrators to query the status of operations that are defined by this protocol.

1.1   Glossary

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

Active Directory Domain Services (AD DS)
authenticated users
directory service (DS)
domain account
globally unique identifier (GUID)
Hypertext Transfer Protocol (HTTP)
Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)

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

contact
distribution list
e-mail address
e-mail alias
SOAP (Simple Object Access Protocol)
SOAP action
SOAP body
SOAP fault
WSDL (Web Services Description Language)
XML namespace
XML Schema

The following terms are specific to this document:

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

1.2   References

1.2.1   Normative References

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

[MS-ADA1] Microsoft Corporation, "Active Directory Schema Attributes A-L", June 2007.

[MS-ADA3] Microsoft Corporation, "Active Directory Schema Attributes N-Z", June 2007.

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

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

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

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

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

[XMLNS] World Wide Web Consortium, "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation 8 December 2009, http://www.w3.org/TR/REC-xml-names/

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

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

1.2.2   Informative References

[MS-GLOS] Microsoft Corporation, "Windows Protocols Master Glossary", March 2007.

[MS-OFCGLOS] Microsoft Corporation, "Microsoft Office Master Glossary", June 2008.

1.3   Protocol Overview (Synopsis)

This protocol enables system administrators to manage **contacts (3)** and groups of contacts that are controlled by either **Active Directory Domain Services (AD DS)** or a **directory service** that is compatible with AD DS. System administrators can use this protocol to:

- Create new contacts (3)

- Add, update, and remove contacts (3) from existing groups of contacts (3), which are referred to as **distribution lists**

- Create, update, and delete distribution lists

- Change ownership settings for a distribution list

- Check the status of operations that are defined by this protocol

- Send e-mail messages to all of the contacts (3) that are included in a distribution list

- Integrate a protocol server with AD DS

1.4 Relationship to Other Protocols

This protocol uses the **SOAP** message protocol for formatting request and response messages, as described in [SOAP1.1], [SOAP1.2/1] and [SOAP1.2/2]. It transmits those messages by using HTTP, as described in [RFC2616], or HTTPS, as described in [RFC2818].

The following diagram shows the underlying messaging and transport stack used by the protocol.
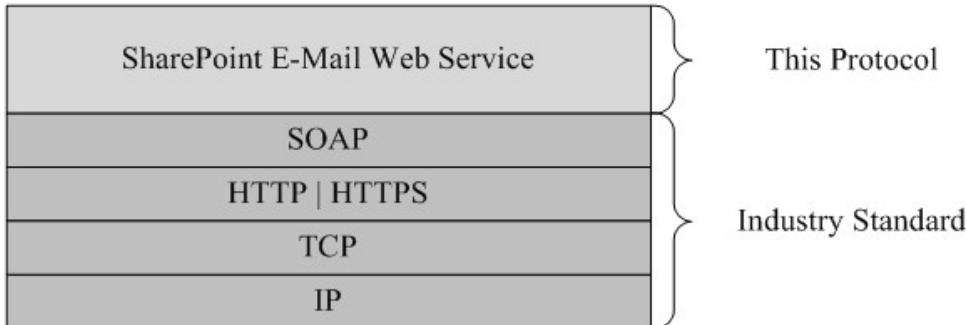
Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a site that is identified by a URL that is known by protocol clients. The protocol server endpoint is formed by appending "/_vti_bin/SharepointEmailWS.asmx" to the URL of the site, for example "http://www.example.com/Repository/_vti_bin/SharepointEmailWS.asmx".

This protocol assumes that authentication has been performed by the underlying protocols.

1.6 Applicability Statement

This protocol is designed to enable a protocol client to create, modify, or delete contacts (3) and distribution lists that are controlled by either AD DS or a directory service that is compatible with AD DS. It also enables a protocol server to require external approval for operations that are defined by this protocol.

This protocol does not enable a protocol client to query the state of a directory service.

1.7 Versioning and Capability Negotiation

This protocol uses multiple transports as specified in section 2.1.

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

Protocol servers MUST support SOAP (Simple Object Access Protocol) over **Hypertext Transfer Protocol (HTTP)**. Protocol servers SHOULD additionally support SOAP over **Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)** to help secure communications with protocol clients.

Protocol messages MUST be formatted as specified in either [SOAP1.1] section 4 or [SOAP1.2/1] section 5. Server faults MUST be returned by using either HTTP status codes, as specified in [RFC2616] section 10, or **SOAP faults**, as specified in [SOAP1.1] section 4.4 or [SOAP1.2/1] section 5.4

2.2 Common Message Syntax

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

2.2.1 Namespaces

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

Prefix	Namespace URI	Reference
Soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
Tns	http://microsoft.com/webservices/SharePoint/SharepointEmailWS/	
s1	http://microsoft.com/wsdl/types/	
S	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	[SOAP1.2/1] [SOAP1.2/2]
Wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]

2.2.2 Messages

None.

2.2.3 Elements

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

2.2.4 Complex Types

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

Complex type	Description
ArrayOfString	Stores an array of strings
RequestInfo	Specifies information about a request to create, modify, or delete a distribution list
RequestResponse	Contains return information for a request

2.2.4.1 ArrayOfString

The **ArrayOfString** complex type contains an array of string values. It is used by the **ChangeContactsMembershipInDistributionGroup** (section 3.1.4.1) and **ChangeUsersMembershipInDistributionGroup** (section 3.1.4.2) operations.

```
<s:complexType name="ArrayOfString">
<s:sequence>
<s:element name="string" type="s:string" nillable="true" minOccurs="0" maxOccurs="unbounded"
/>
</s:sequence>
</s:complexType>
```

string: A string variable that contains the name of a contact (3) or user.

2.2.4.2 RequestInfo

The **RequestInfo** complex type contains information about a request to create, modify, or delete a distribution list. It is used by the following operations:

- **CreateDistributionGroup** (section 3.1.4.4)

- **DeleteDistributionGroup** (section 3.1.4.6)

- **ModifyDistributionGroup** (section 3.1.4.9)

- **RenameDistributionGroup** (section 3.1.4.10)

```
<s:complexType name="RequestInfo">
<s:sequence>
<s:element name="RequestorEmail" type="s:string" />
<s:element name="Justification" type="s:string" minOccurs="0" />
<s:element name="RequestId" type="s1:guid" />
</s:sequence>
</s:complexType>
```

RequestorEmail: The **e-mail address** of the user who is attempting to create, modify, or delete the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are defined in [MS-ADA1] section 2.110.

Justification: The requestor's reasons for making the request. This value MUST be 4,000 or fewer characters.

RequestId: A **GUID** that identifies the request. This value MUST be ignored by the protocol server.

2.2.4.3   RequestResponse

The **RequestResponse** complex type specifies return information for a request. It is used by the following operations:

- **CreateDistributionGroup** (section 3.1.4.4)

- **DeleteDistributionGroup** (section 3.1.4.6)

- **GetJobStatus** (section 3.1.4.7)

- **ModifyDistributionGroup** (section 3.1.4.9)

- **RenameDistributionGroup** (section 3.1.4.10)

```
<s:complexType name="RequestResponse">
<s:sequence>
<s:element name="JobID" type="s:int" />
<s:element name="Comment" type="s:string" minOccurs="0" />
<s:element name="JobStatus" type="tns:RequestStatus" />
<s:element name="Alias" type="s:string" minOccurs="0" />
</s:sequence>
</s:complexType>
```

JobID: An integer that identifies a newly created job or an existing job whose status is being retrieved by the GetJobStatus operation. If a new job was created, this value MUST be greater than "0". Otherwise, if the job creation failed or the request was automatically approved, this value MUST be "0".

Comment: A string that contains additional information about the request.

JobStatus: A **RequestStatus** simple type (section 2.2.5.3) that contains the status of the request.

Alias: The **e-mail alias** of the contact (3) or distribution list that the request applies to.

2.2.5   Simple Types

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

Simple type	Description
ContactFlags	Enumerates the properties and constraints on a contact (3)
DistributionGroupFlags	Enumerates the properties and constraints on a distribution list
RequestStatus	Enumerates the status of a request message

2.2.5.1 ContactFlags

The **ContactFlags** simple type enumerates properties and constraints on a contact (3). It is used by the **CreateContact** (section 3.1.4.3) and **ModifyContact** (section 3.1.4.8) operations.

```
<s:simpleType name="ContactFlags">
<s:restriction base="s:string">
<s:enumeration value="None"/>
<s:enumeration value="OnlyAllowAuthenticatedEmail"/>
</s:restriction>
</s:simpleType>
```

The following table defines the allowable values for the **ContactFlags** simple type:

Value	Description
None	No flags are associated with the contact (3).
OnlyAllowAuthenticatedEmail	The contact (3) is allowed to receive e-mail messages only from accounts that are associated with authenticated users.

2.2.5.2 DistributionGroupFlags

The **DistributionGroupFlags** simple type enumerates properties and constraints on a distribution list. It is used by the **CreateDistributionGroup** (section 3.1.4.4) and the **ModifyDistributionGroup** (section 3.1.4.9) operations.

```
<s:simpleType name="DistributionGroupFlags">
<s:restriction base="s:string">
<s:enumeration value="None"/>
<s:enumeration value="OnlyAllowAuthenticatedEmail"/>
</s:restriction>
</s:simpleType>
```

The following table defines the allowable values for the **DistributionGroupFlags** simple type:

Value	Description
None	No flags are associated with the distribution list.
OnlyAllowAuthenticatedEmail	The distribution list is allowed to receive e-mail messages only from **authenticated users**.

2.2.5.3 RequestStatus

The **RequestStatus** simple type enumerates the status of a request. It is used by the following operations:

- **ChangeContactsMembershipInDistributionGroup** (section 3.1.4.1)

- **ChangeUsersMembershipInDistributionGroup** (section 3.1.4.2)

- **CreateContact** (section 3.1.4.3)

- **DeleteContact** (section 3.1.4.5)

- **ModifyContact** (section 3.1.4.8)

It is also used by the **RequestResponse** complex type (section 2.2.4.3).

```
<s:simpleType name="RequestStatus">
<s:restriction base="s:string">
<s:enumeration value="Success"/>
<s:enumeration value="PendingApproval"/>
<s:enumeration value="ApprovalDenied"/>
<s:enumeration value="DuplicateAlias"/>
<s:enumeration value="InvalidArgument"/>
<s:enumeration value="ServiceNotConfigured"/>
<s:enumeration value="AccessDenied"/>
<s:enumeration value="ServerUnavailable"/>
<s:enumeration value="ObjectNotFound"/>
<s:enumeration value="InvalidMember"/>
<s:enumeration value="InternalError"/>
</s:restriction>
</s:simpleType>
```

The following table defines the allowable values for the **RequestStatus** simple type.

Value	Description
Success	The operation finished successfully.
PendingApproval	The operation requires approval and approval has not been granted or denied yet.
ApprovalDenied	The operation requires approval and approval was denied.
DuplicateAlias	The specified e-mail address already exists in the directory service.
InvalidArgument	One or more arguments are not valid.
ServiceNotConfigured	The directory service is not configured.
AccessDenied	The protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
ServerUnavailable	A protocol server that is needed for the operation cannot be accessed.
ObjectNotFound	The specified distribution list or contact (3) cannot be found.
InvalidMember	One or more of the specified e-mail addresses is not valid.
InternalError	The operation failed because an unexpected internal error occurred.

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.

This protocol enables protocol servers to perform implementation-specific authorization checks and to notify protocol clients of authorization faults by using either HTTP status codes or SOAP faults. Except where specified otherwise, protocol clients SHOULD interpret HTTP status codes as specified in [RFC2616] section 10. Except where specified otherwise, SOAP faults are not significant for interoperability and protocol clients can interpret them in an implementation-specific manner.

3.1   SharepointEmailWSSoap Server Details

3.1.1   Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.
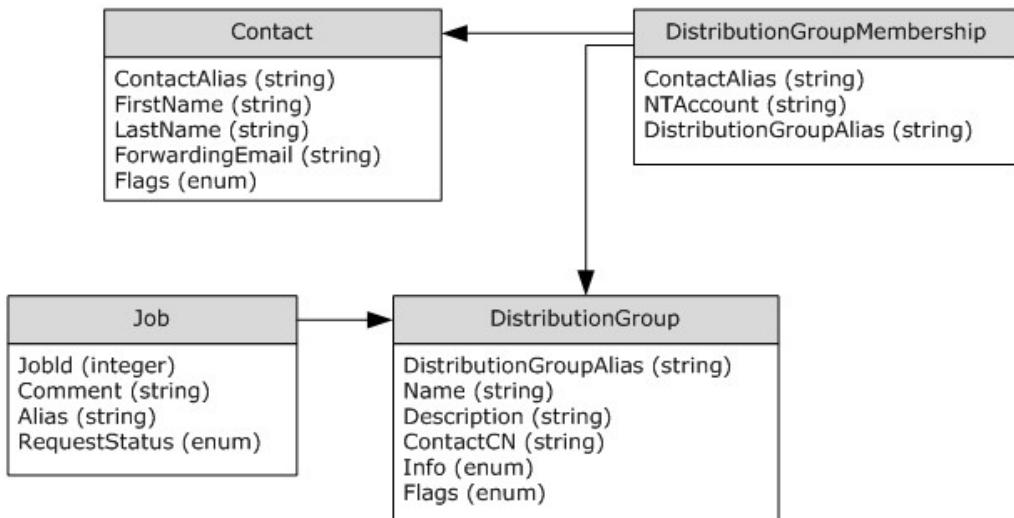
Figure 2: Data structure on a protocol server

The back-end, data storage system maintains the following sets of data for this protocol.

Contact: Contains information about contacts (3). Each contact (3) is uniquely identified by an e-mail alias that is assigned to it by a protocol client.

DistributionGroup: Contains information about distribution lists. Each distribution list is uniquely identified by an e-mail alias that is assigned to it by a protocol client.

Job: Contains information about changes that were requested by a protocol client. Each job is uniquely identified by a job identifier that is assigned to it by a protocol server.

DistributionGroupMembership: Contains information about contacts (3) that are members of a distribution list.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

WSDL operation	Description
ChangeContactsMembershipInDistributionGroup	Adds or removes contacts (3) from a distribution list
ChangeUsersMembershipInDistributionGroup	Adds or removes users from a distribution list
CreateContact	Creates a new contact (3)
CreateDistributionGroup	Creates a new distribution list
DeleteContact	Deletes a contact (3)
DeleteDistributionGroup	Deletes a distribution list
GetJobStatus	Requests an update on the status of a request that was pending approval when it was last checked
ModifyContact	Changes information about a contact (3)
ModifyDistributionGroup	Changes information about a distribution list
RenameDistributionGroup	Changes the name of a distribution list

3.1.4.1 ChangeContactsMembershipInDistributionGroup

The **ChangeContactsMembershipInDistributionGroup** operation is used to add and remove contacts (3) from a distribution list.

```
<wsdl:operation name="ChangeContactsMembershipInDistributionGroup">
<wsdl:input message="ChangeContactsMembershipInDistributionGroupSoapIn" />
<wsdl:output message="ChangeContactsMembershipInDistributionGroupSoapOut" />
</wsdl:operation>
```

The protocol client sends a **ChangeContactsMembershipInDistributionGroupSoapIn** request message and the protocol server responds with a **ChangeContactsMembershipInDistributionGroupSoapOut** response message.
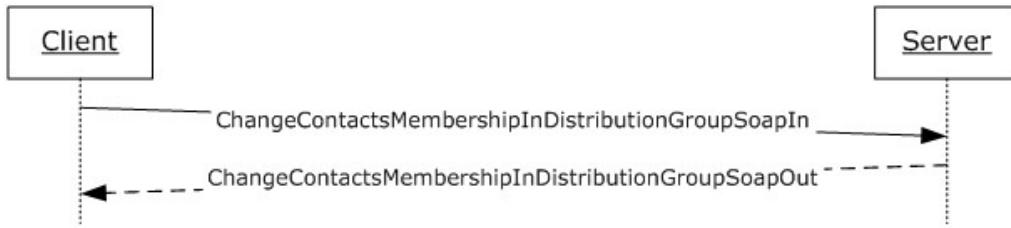
Figure 3: Message sequence for a ChangeContactsMembershipInDistributionGroup operation

3.1.4.1.1 Messages

3.1.4.1.1.1 ChangeContactsMembershipInDistributionGroupSoapIn

This is the request message for a **ChangeContactsMembershipInDistributionGroup** operation.

The **SOAP action** value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ChangeContactsMembershipInDistri
butionGroup
```

The **SOAP body** contains a **ChangeContactsMembershipInDistributionGroup** element.

3.1.4.1.1.2 ChangeContactsMembershipInDistributionGroupSoapOut

This is the response message for a **ChangeContactsMembershipInDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ChangeContactsMembershipInDistri
butionGroup
```

The SOAP body contains a **ChangeContactsMembershipInDistributionGroupResponse** element.

3.1.4.1.2 Elements

3.1.4.1.2.1 ChangeContactsMembershipInDistributionGroup

The definition of the **ChangeContactsMembershipInDistributionGroup** element is as follows.

```
<s:element name="ChangeContactsMembershipInDistributionGroup">
<s:complexType>
<s:sequence>
<s:element name="Alias" type="s:string" />
<s:element name="AddListForContacts" type="tns:ArrayOfString" minOccurs="0" />
<s:element name="DeleteListForContacts" type="tns:ArrayOfString" minOccurs="0" />
<s:element name="DeleteAllCurrentMembers" type="s:boolean" />
</s:sequence>
</s:complexType>
</s:element>
```

Alias: The e-mail alias of the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

AddListForContacts: An array that contains the e-mail aliases of the contacts (3) to add.

DeleteListForContacts: An array that contains the e-mail aliases of the contacts (3) to remove.

DeleteAllCurrentMembers: A Boolean value that indicates whether to remove all members from the distribution list or only the contacts (3) specified by the **DeleteListForContacts** element. If this value is "TRUE", the **DeleteListForContacts** element MUST be ignored.

The addition of contacts (3) to the distribution group MUST occur after all of the deletion requests are processed.

3.1.4.1.2.2   ChangeContactsMembershipInDistributionGroupResponse

The definition of the **ChangeContactsMembershipInDistributionGroupResponse** element is as follows.

```
<s:element name="ChangeContactsMembershipInDistributionGroupResponse">
<s:complexType>
<s:sequence>
<s:element name="ChangeContactsMembershipInDistributionGroupResult"
type="tns:RequestStatus"/>
</s:sequence>
</s:complexType>
</s:element>
```

ChangeContactsMembershipInDistributionGroupResult: The protocol server MUST return a **RequestStatus** simple type (section 2.2.5.3) in the response message. The response must contain one of the following values:

Value	Description
RequestStatus.InvalidMember	The value of the **DeleteAllCurrentMembers** element is "FALSE" and one of the e-mail aliases specified in the **DeleteListForContacts** element either cannot be found or is not a valid member of the distribution list.
RequestStatus.ObjectNotFound	The specified e-mail alias cannot be found.
RequestStatus.AccessDenied	The protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	A protocol server that is required for the operation cannot be accessed.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred.
RequestStatus.Success	The operation finished successfully.

3.1.4.2   ChangeUsersMembershipInDistributionGroup

The **ChangeUsersMembershipInDistributionGroup** operation is used to add and remove users from a distribution list.

```
<wsdl:operation name="ChangeUsersMembershipInDistributionGroup">
<wsdl:input message="ChangeUsersMembershipInDistributionGroupSoapIn" />
<wsdl:output message="ChangeUsersMembershipInDistributionGroupSoapOut" />
</wsdl:operation>
```

The protocol client sends a **ChangeUsersMembershipInDistributionGroupSoapIn** request message and the protocol server responds with a **ChangeUsersMembershipInDistributionGroupSoapOut** response message.
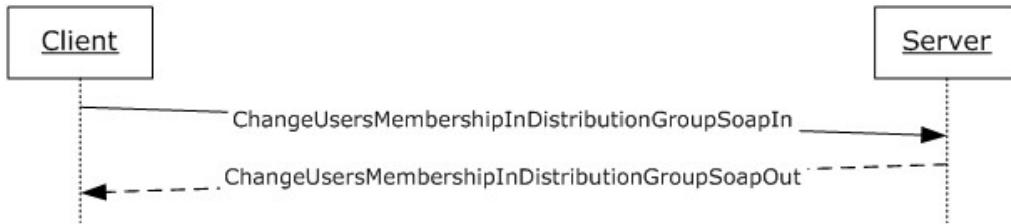

Figure 4: Message sequence for a ChangeUsersMembershipInDistributionGroup operation

3.1.4.2.1   Messages

3.1.4.2.1.1   ChangeUsersMembershipInDistributionGroupSoapIn

This is the request message for a **ChangeUsersMembershipInDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ChangeUsersMembershipInDistribu
tionGroup
```

The SOAP body contains a **ChangeUsersMembershipInDistributionGroup** element.

3.1.4.2.1.2   ChangeUsersMembershipInDistributionGroupSoapOut

This is the response message for a **ChangeUsersMembershipInDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ChangeUsersMembershipInDistribu
tionGroup
```

The SOAP body contains a **ChangeUsersMembershipInDistributionGroupResponse** element.

3.1.4.2.2   Elements

3.1.4.2.2.1   ChangeUsersMembershipInDistributionGroup

The definition of the **ChangeUsersMembershipInDistributionGroup** element is as follows.

```
<s:element name="ChangeUsersMembershipInDistributionGroup">
<s:complexType>
<s:sequence>
```

```
<s:element name="Alias" type="s:string" minOccurs="0"/>
<s:element name="AddNt4NameList" type="tns:ArrayOfString" minOccurs="0"/>
<s:element name="DeleteNt4NameList" type="tns:ArrayOfString" minOccurs="0"/>
<s:element name="DeleteAllCurrentMembers" type="s:boolean"/>
</s:sequence>
</s:complexType>
</s:element>
```

Alias: The e-mail alias of the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

AddNt4NameList: An array that contains the **domain accounts** for the users to add. This can be NULL.

DeleteNt4NameList: An array that contains the domain accounts for the users to remove. This can be NULL.

DeleteAllCurrentMembers: A Boolean value that indicates whether to remove all users from the distribution list or only the users specified by the **DeleteNt4NameList** element.

3.1.4.2.2.2   ChangeUsersMembershipInDistributionGroupResponse

The definition of the **ChangeUsersMembershipInDistributionGroupResponse** element is as follows.

```
<s:element name="ChangeUsersMembershipInDistributionGroupResponse">
<s:complexType>
<s:sequence>
<s:element name="ChangeUsersMembershipInDistributionGroupResult" type="tns:RequestStatus"/>
</s:sequence>
</s:complexType>
</s:element>
```

ChangeUsersMembershipInDistributionGroupResult: The protocol server MUST return a **RequestStatus** simple type (section 2.2.5.3) in the response message. The response MUST contain one of the following values:

Value	Description
RequestStatus.ObjectNotFound	The specified **e-mail alias** cannot be found in the directory service.
RequestStatus.AccessDenied	The protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	A protocol server that is required for the operation cannot be accessed.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred or one of the **e-mail aliases** specified in the **DeleteNt4NameList** element either cannot be found or is not a valid member of the **distribution list**.
RequestStatus.Success	The valid specified accounts were added successfully. Invalid accounts were not added.

3.1.4.3   CreateContact

The **CreateContact** operation is used to add a contact (3) to a directory service.

```
<wsdl:operation name="CreateContact">
<wsdl:input message="CreateContactSoapIn" />
<wsdl:output message="CreateContactSoapOut" />
</wsdl:operation>
```

The protocol client sends a **CreateContactSoapIn** request message and the protocol server responds with a **CreateContactSoapOut** response message.

Figure 5: Message sequence for a CreateContact operation

3.1.4.3.1   Messages

3.1.4.3.1.1   CreateContactSoapIn

This is the request message for a **CreateContact** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/CreateContact
```

The SOAP body contains a **CreateContact** element.

3.1.4.3.1.2   CreateContactSoapOut

This is the response message for a **CreateContact** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/CreateContact
```

The SOAP body contains a **CreateContactResponse** element.

3.1.4.3.2   Elements

3.1.4.3.2.1   CreateContact

The definition of the **CreateContact** element is as follows.

```
<s:element name="CreateContact">
<s:complexType>
```

```
<s:sequence>
<s:element name="Alias" type="s:string" />
<s:element name="FirstName" type="s:string" />
<s:element name="LastName" type="s:string"  />
<s:element name="ForwardingEmail" type="s:string" minOccurs="0" />
<s:element name="Flags" type="tns:ContactFlags"  />
</s:sequence>
</s:complexType>
</s:element>
```

Alias: The e-mail alias of the contact (3). Limitations on this value are specified in [MS-ADA1] section 2.110.

FirstName: The first name of the contact (3). Limitations on this value are specified in [MS-ADA1] section 2.273.

LastName: The last name of the contact (3). Limitations on this value are specified in [MS-ADA3] section 2.274.

ForwardingEmail: The e-mail address where e-mail messages are sent for the contact (3).

Flags: A **ContactFlags** simple type (section 2.2.5.1) that contains any additional properties or constraints on the contact (3).

3.1.4.3.2.2   CreateContactResponse

The definition of the **CreateContactResponse** element is as follows.

```
<s:element name="CreateContactResponse">
<s:complexType>
<s:sequence>
<s:element name="CreateContactResult" type="tns:RequestStatus"/>
</s:sequence>
</s:complexType>
</s:element>
```

CreateContactResult: The protocol server MUST return a **RequestStatus** simple type (section 2.2.5.3) in the response message. The response MUST contain one of the following values:

Value	Description
RequestStatus.ServiceNotConfigured	The directory service is not configured.
RequestStatus.InvalidArgument	The specified e-mail alias is not valid.
RequestStatus.DuplicateAlias	The specified e-mail alias already exists in the directory service.
RequestStatus.AccessDenied	The protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	A protocol server that is needed for the operation cannot be accessed.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred.

Value	Description
RequestStatus.Success	The operation finished successfully.

3.1.4.4 CreateDistributionGroup

The **CreateDistributionGroup** operation is used to create a distribution list in a directory service.

```
<wsdl:operation name="CreateDistributionGroup">
<wsdl:input message="CreateDistributionGroupSoapIn" />
<wsdl:output message="CreateDistributionGroupSoapOut" />
</wsdl:operation>
```

The protocol client sends a **CreateDistributionGroupSoapIn** request message and the protocol server responds with a **CreateDistributionGroupSoapOut** response message.
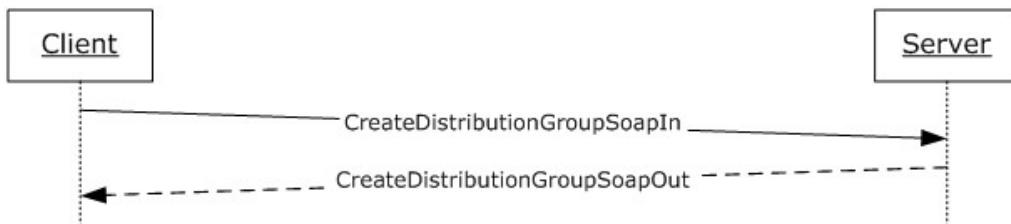
Figure 6: Message sequence for a CreateDistributionGroup operation

3.1.4.4.1 Messages

3.1.4.4.1.1 CreateDistributionGroupSoapIn

This is the request message for a **CreateDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/CreateDistributionGroup
```

The SOAP body contains a **CreateDistributionGroup** element.

3.1.4.4.1.2 CreateDistributionGroupSoapOut

This is the response message for a **CreateDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/CreateDistributionGroup
```

The SOAP body contains a **CreateDistributionGroupResponse** element.

3.1.4.4.2 Elements

3.1.4.4.2.1 CreateDistributionGroup

The definition of the **CreateDistributionGroup** element is as follows.

```
<s:element name="CreateDistributionGroup">
<s:complexType>
<s:sequence>
<s:element name="Alias" type="s:string" />
<s:element name="Name" type="s:string" />
<s:element name="Description" type="s:string" minOccurs="0" />
<s:element name="ContactCN" type="s:string" minOccurs="0" />
<s:element name="Info" type="tns:RequestInfo" />
<s:element name="Flags" type="tns:DistributionGroupFlags" />
</s:sequence>
</s:complexType>
</s:element>
```

Alias: The e-mail alias of the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

Name: The display name of the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.175.

Description: The description of the distribution group. This value MUST be 4,000 or fewer characters.

ContactCN: The e-mail alias of the contact (3) to add to the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

Info: A **RequestInfo** complex type (section 2.2.4.2) that contains additional information about the request to create the distribution list.

Flags: A **DistributionGroupFlags** simple type (section 2.2.5.2) that contains validation properties of the distribution list.

3.1.4.4.2.2 CreateDistributionGroupResponse

The definition of the **CreateDistributionGroupResponse** element is as follows.

```
<s:element name="CreateDistributionGroupResponse">
<s:complexType>
<s:sequence>
<s:element name="CreateDistributionGroupResult" type="tns:RequestResponse" />
</s:sequence>
</s:complexType>
</s:element>
```

CreateDistributionGroupResult: The protocol server MUST return a **RequestResponse** complex type (section 2.2.4.3). The **JobStatus** element of the **RequestResponse** type MUST contain one of the following values:

Value	Description
RequestStatus.ServiceNotConfigured	The directory service is not configured.
RequestStatus.InvalidArgument	The specified e-mail alias is not valid or the **RequestorEmail** element of the **Info** element is NULL.
RequestStatus.DuplicateAlias	The specified e-mail alias already exists in the collection of creation requests that are pending approval, or automatic approvals are enabled and the specified e-mail alias already exists in the directory service.
RequestStatus.AccessDenied	Automatic approvals are enabled and the protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	Automatic approvals are enabled and a protocol server that is needed for the operation cannot be accessed.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred.
RequestStatus.ObjectNotFound	Automatic approvals are enabled and the e-mail alias specified by the **ContactCN** element cannot be found in the directory service.
RequestStatus.PendingApproval	Automatic approvals are disabled and a job was created for the request.
RequestStatus.Success	Automatic approvals are enabled and the operation finished successfully.

3.1.4.5   DeleteContact

The **DeleteContact** operation is used to delete a contact (3) from a directory service.

```
<wsdl:operation name="DeleteContact">
<wsdl:input message="DeleteContactSoapIn" />
<wsdl:output message="DeleteContactSoapOut" />
</wsdl:operation>
```

The protocol client sends a **DeleteContactSoapIn** request message and the protocol server responds with a **DeleteContactSoapOut** response message.

Figure 7: Message sequence for a DeleteContact operation

3.1.4.5.1 Messages

3.1.4.5.1.1 DeleteContactSoapIn

This is the request message for a **DeleteContact** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/DeleteContact
```

The SOAP body contains a **DeleteContact** element.

3.1.4.5.1.2 DeleteContactSoapOut

This is the response message for a **DeleteContact** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/DeleteContact
```

The SOAP body contains a **DeleteContactResponse** element.

3.1.4.5.2 Elements

3.1.4.5.2.1 DeleteContact

The definition of the **DeleteContact** element is as follows.

```
<s:element name="DeleteContact">
<s:complexType>
<s:sequence>
<s:element name="Alias" type="s:string" />
</s:sequence>
</s:complexType>
</s:element>
```

Alias: The e-mail alias of the contact (3) to delete from the directory service. Limitations on this value are specified in [MS-ADA1] section 2.110.

3.1.4.5.2.2 DeleteContactResponse

The definition of the **DeleteContactResponse** element is as follows.

```
<s:element name="DeleteContactResponse">
<s:complexType>
<s:sequence>
<s:element name="DeleteContactResult" type="tns:RequestStatus"/>
</s:sequence>
</s:complexType>
</s:element>
```

DeleteContactResult: The protocol server MUST return a **RequestStatus** simple type (section 2.2.5.3) in the response message. The response MUST contain one of the following values:

Value	Description
RequestStatus.ServiceNotConfigured	The directory service is not configured.
RequestStatus.InvalidArgument	The specified e-mail alias is not valid.
RequestStatus.ObjectNotFound	The contact (3) cannot be found in the directory service.
RequestStatus.AccessDenied	The protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	A protocol server that is needed for the operation cannot be accessed.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred.
RequestStatus.Success	The operation finished successfully.

3.1.4.6 DeleteDistributionGroup

The **DeleteDistributionGroup** operation is used to delete an existing distribution list from a directory service.

```
<wsdl:operation name="DeleteDistributionGroup">
<wsdl:input message="DeleteDistributionGroupSoapIn" />
<wsdl:output message="DeleteDistributionGroupSoapOut" />
</wsdl:operation>
```

The protocol client sends a **DeleteDistributionGroupSoapIn** request message and the protocol server responds with a **DeleteDistributionGroupSoapOut** response message.

Figure 8: Message sequence for a DeleteDistributionGroup operation

3.1.4.6.1 Messages

3.1.4.6.1.1 DeleteDistributionGroupSoapIn

This is the request message for a **DeleteDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/DeleteDistributionGroup
```

The SOAP body contains a **DeleteDistributionGroup** element.

3.1.4.6.1.2 DeleteDistributionGroupSoapOut

This is the response message for a **DeleteDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/DeleteDistributionGroup
```

The SOAP body contains a **DeleteDistributionGroupResponse** element.

3.1.4.6.2 Elements

3.1.4.6.2.1 DeleteDistributionGroup

The definition of the **DeleteDistributionGroup** element is as follows.

```
<s:element name="DeleteDistributionGroup">
<s:complexType>
<s:sequence>
<s:element name="Alias" type="s:string" />
<s:element name="Info" type="tns:RequestInfo" />
</s:sequence>
</s:complexType>
</s:element>
```

Alias: The e-mail alias of the distribution list to delete. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

Info: A **RequestInfo** complex type (section 2.2.4.2) that contains additional information about the request to delete the distribution list.

3.1.4.6.2.2 DeleteDistributionGroupResponse

The definition of the **DeleteDistributionGroupResponse** element is as follows.

```
<s:element name="DeleteDistributionGroupResponse">
<s:complexType>
<s:sequence>
<s:element name="DeleteDistributionGroupResult" type="tns:RequestResponse" />
</s:sequence>
</s:complexType>
</s:element>
```

DeleteDistributionGroupResult: The protocol server MUST return a **RequestResponse** complex type (section 2.2.4.3). The **JobStatus** element of the **RequestResponse** type MUST contain one of the following values:

Value	Description
RequestStatus.ServiceNotConfigured	The directory service is not configured.

Value	Description
RequestStatus.InvalidArgument	The specified e-mail alias is not valid or the **RequestorEmail** element of the **Info** element is NULL.
RequestStatus.ObjectNotFound	The specified e-mail alias cannot be found in either the directory service or the collection of distribution lists that are pending creation.
RequestStatus.AccessDenied	Automatic approvals are enabled and the protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	Automatic approvals are enabled and a protocol server that is needed for the operation cannot be accessed.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred.
RequestStatus.PendingApproval	Automatic approvals are disabled and a job was created for the deletion request.
RequestStatus.Success	The operation finished successfully; the distribution group was deleted or a pending request to create the distribution group was cancelled.

3.1.4.7 GetJobStatus

The **GetJobStatus** operation is used to request an update on the status of an existing request that was created by any of the following operations:

- **CreateDistributionGroup** (section 3.1.4.4)

- **DeleteDistributionGroup** (section 3.1.4.6.2.1)

- **ModifyDistributionGroup** (section 3.1.4.9)

- **RenameDistributionGroup** (section 3.1.4.10)

If the request was created by a **CreateDistributionGroup** operation and the **RequestStatus** element (section 2.2.5.3) contains any value other than "PendingApproval" or "Success", both the job and the corresponding job identifier, as specified by the **JobID** element, are removed from the collection of jobs.

If the request was created by any operation other than a **CreateDistributionGroup** operation and the **RequestStatus** element (section 2.2.5.3) contains any value other than "PendingApproval", both the job and the corresponding job identifier, as specified by the **JobID** element, are removed from the collection of jobs.

In all other cases, neither the job nor the corresponding job identifier is removed from the collection of jobs.

```
<wsdl:operation name="GetJobStatus">
<wsdl:input message="GetJobStatusSoapIn" />
<wsdl:output message="GetJobStatusSoapOut" />
</wsdl:operation>
```

The protocol client sends a **GetJobStatusSoapIn** request message and the protocol server responds with a **GetJobStatusSoapOut** response message.
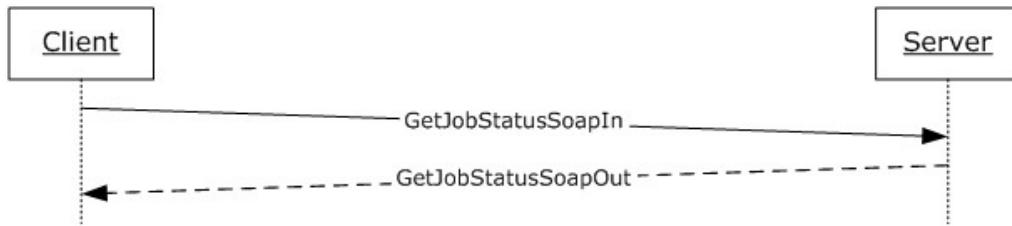
Figure 9: Message sequence for a GetJobStatus operation

3.1.4.7.1 Messages

3.1.4.7.1.1 GetJobStatusSoapIn

This is the request message for a **GetJobStatus** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/GetJobStatus
```

The SOAP body contains a **GetJobStatus** element.

3.1.4.7.1.2 GetJobStatusSoapOut

This is the response message for a **GetJobStatus** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/GetJobStatus
```

The SOAP body contains a **GetJobStatusResponse** element.

3.1.4.7.2 Elements

3.1.4.7.2.1 GetJobStatus

The definition of the **GetJobStatus** element is as follows.

```
<s:element name="GetJobStatus">
<s:complexType>
<s:sequence>
<s:element name="JobId" type="s:int"  />
</s:sequence>
</s:complexType>
</s:element>
```

JobId: The identifier that is returned in a **RequestResponse** type (section 2.2.4.3) by the original operation, which is either a **CreateDistributionGroup** (section 3.1.4.4), **DeleteDistributionGroup** (section 3.1.4.6.2.1), **ModifyDistributionGroup** (section 3.1.4.9), or

RenameDistributionGroup (section 3.1.4.10) operation. This identifier MUST be in the collection of jobs.

3.1.4.7.2.2 GetJobStatusResponse

The definition of the **GetJobStatusResponse** element is as follows.

```
<s:element name="GetJobStatusResponse">
<s:complexType>
<s:sequence>
<s:element name="GetJobStatusResult" type="tns:RequestResponse" />
</s:sequence>
</s:complexType>
</s:element>
```

GetJobStatusResult: The protocol server MUST return a **RequestResponse** complex type (section 2.2.4.3) in the response message. The **JobStatus** element of the **RequestResponse** type MUST contain one of the following values:

Value	Description
RequestStatus.InvalidArgument	The value of the **JobId** element is less than or equal to "0" (zero).
RequestStatus.ApprovalDenied	Approval was denied for the job specified by the **JobId** element.
RequestStatus.PendingApproval	Approval has been neither granted nor denied yet for the job specified by the **JobId** element.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred.
RequestStatus.Success	Approval was granted for the job specified by the **JobId** element.

3.1.4.8 ModifyContact

The **ModifyContact** operation is used to modify the properties of an existing contact (3) in a directory service.

```
<wsdl:operation name="ModifyContact">
<wsdl:input message="ModifyContactSoapIn" />
<wsdl:output message="ModifyContactSoapOut" />
</wsdl:operation>
```

The protocol client sends a **ModifyContactSoapIn** request message and the protocol server responds with a **ModifyContactSoapOut** response message.


Figure 10: Message sequence for a ModifyContact operation

Release: Sunday, December 19, 2010

3.1.4.8.1 Messages

3.1.4.8.1.1 ModifyContactSoapIn

This is the request message for a **ModifyContact** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ModifyContact
```

The SOAP body contains a **ModifyContact** element.

3.1.4.8.1.2 ModifyContactSoapOut

This is the response message for a **ModifyContact** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ModifyContact
```

The SOAP body contains a **ModifyContactResponse** element.

3.1.4.8.2 Elements

3.1.4.8.2.1 ModifyContact

The definition of the **ModifyContact** element is as follows.

```
<s:element name="ModifyContact">
<s:complexType>
<s:sequence>
<s:element name="OldAlias" type="s:string" />
<s:element name="NewAlias" type="s:string" minOccurs="0"/>
<s:element name="FirstName" type="s:string" />
<s:element name="LastName" type="s:string" />
<s:element name="ForwardingEmail" type="s:string" minOccurs="0"/>
<s:element name="Flags" type="tns:ContactFlags" />
</s:sequence>
</s:complexType>
</s:element>
```

OldAlias: The current e-mail alias of the contact (3). Limitations on this value are specified in [MS-ADA1] section 2.110.

NewAlias: The new e-mail alias of the contact (3). If a value is not specified, the e-mail alias of the contact (3) is not changed. Limitations on this value are specified in [MS-ADA1] section 2.110.

FirstName: The first name of the contact (3). Limitations on this value are specified in [MS-ADA1] section 2.273.

LastName: The last name of the contact (3). Limitations on this value are specified in [MS-ADA3] section 2.274.

ForwardingEmail: The e-mail address where e-mail messages are forwarded for the contact (3).

Flags: A **ContactFlags** simple type (section 2.2.5.1) that contains any additional properties or constraints on the contact (3).

3.1.4.8.2.2 ModifyContactResponse

The definition of the **ModifyContactResponse** element is as follows.

```
<s:element name="ModifyContactResponse">
<s:complexType>
<s:sequence>
<s:element name="ModifyContactResult" type="tns:RequestStatus"/>
</s:sequence>
</s:complexType>
</s:element>
```

ModifyContactResult: The protocol server MUST return a **RequestStatus** simple type (section 2.2.5.3) in the response message. The response MUST contain one of the following values:

Value	Description
RequestStatus.ServiceNotConfigured	The directory service is not configured.
RequestStatus.InvalidArgument	The value of the **OldAlias** element contains zero characters, or the value of the **OldAlias** or **NewAlias** element contains a semicolon (;).
RequestStatus.DuplicateAlias	A value was specified by the **NewAlias** element and that value is not equal to the value of the **OldAlias** element, ignoring case. However, the value specified by the **NewAlias** element already exists in the directory service.
RequestStatus.AccessDenied	The protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	A protocol server that is needed for the operation cannot be accessed.
RequestStatus.ObjectNotFound	The value specified by the **OldAlias** element does not exist in the directory service.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred.
RequestStatus.Success	The operation finished successfully.

3.1.4.9 ModifyDistributionGroup

The **ModifyDistributionGroup** operation is used to change properties of an existing distribution list in a directory service.

```
<wsdl:operation name="ModifyDistributionGroup">
<wsdl:input message="ModifyDistributionGroupSoapIn" />
<wsdl:output message="ModifyDistributionGroupSoapOut" />
</wsdl:operation>
```

The protocol client sends a **ModifyDistributionGroupSoapIn** request message and the protocol server responds with a **ModifyDistributionGroupSoapOut** response message.

Figure 11: Message sequence for a ModifyDistributionGroup operation

3.1.4.9.1   Messages

3.1.4.9.1.1   ModifyDistributionGroupSoapIn

This is the request message for a **ModifyDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ModifyDistributionGroup
```

The SOAP body contains a **ModifyDistributionGroup** element.

3.1.4.9.1.2   ModifyDistributionGroupSoapOut

This is the response message for a **ModifyDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ModifyDistributionGroup
```

The SOAP body contains a **ModifyDistributionGroupResponse** element.

3.1.4.9.2   Elements

3.1.4.9.2.1   ModifyDistributionGroup

The definition of the **ModifyDistributionGroup** element is as follows.

```
<s:element name="ModifyDistributionGroup">
<s:complexType>
<s:sequence>
<s:element name="Alias" type="s:string" />
<s:element name="Name" type="s:string" />
<s:element name="Description" type="s:string" minOccurs="0" />
<s:element name="ContactCN" type="s:string" minOccurs="0" />
<s:element name="Info" type="tns:RequestInfo" />
<s:element name="Flags" type="tns:DistributionGroupFlags" />
</s:sequence>
</s:complexType>
```

```
          </s:element>
```

Alias: The e-mail alias of the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

Name: The new display name of the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.175.

Description: The new description of the distribution list. This value MUST be 4,000 or fewer characters.

ContactCN: The e-mail alias of a contact (3) to add to the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

Info: A **RequestInfo** complex type (section 2.2.4.2) that contains additional information about the request.

Flags: A **DistributionGroupFlags** simple type (section 2.2.5.2) that contains updated validation properties or constraints on the distribution list.

3.1.4.9.2.2   ModifyDistributionGroupResponse

The definition of the **ModifyDistributionGroupResponse** element is as follows.

```
<s:element name="ModifyDistributionGroupResponse">
<s:complexType>
<s:sequence>
<s:element name="ModifyDistributionGroupResult" type="tns:RequestResponse" />
</s:sequence>
</s:complexType>
</s:element>
```

ModifyDistributionGroupResult: The protocol server MUST return a **RequestResponse** complex type (section 2.2.4.3) in the response message. The value of the **JobStatus** element of the **RequestResponse** type MUST be one of the following values:

Value	Description
RequestStatus.ServiceNotConfigured	The directory service is not configured.
RequestStatus.InvalidArgument	The value specified by the **Alias** element is not valid or the **RequestorEmail** element of the **Info** element is NULL.
RequestStatus.ObjectNotFound	The value specified by the **Alias** element cannot be found in the directory service or automatic approvals are enabled and the value specified by the **ContactCN** element cannot be found in the directory service.
RequestStatus.AccessDenied	Automatic approvals are enabled but the protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	Automatic approvals are enabled and a protocol server that is required for the operation cannot be accessed.
RequestStatus.InternalError	The operation failed because an unexpected internal error

Value	Description
	occurred.
RequestStatus.PendingApproval	Automatic approvals are disabled and a job was created for the request.
RequestStatus.Success	Automatic approvals are enabled and the operation finished successfully.

3.1.4.10 RenameDistributionGroup

The **RenameDistributionGroup** operation is used to change the name of an existing distribution list in a directory service.

```
<wsdl:operation name="RenameDistributionGroup">
<wsdl:input message="RenameDistributionGroupSoapIn" />
<wsdl:output message="RenameDistributionGroupSoapOut" />
</wsdl:operation>
```

The protocol client sends a **RenameDistributionGroupSoapIn** request message and the protocol server responds with a **RenameDistributionGroupSoapOut** response message.

Figure 12: Message sequence for a RenameDistributionGroup operation

3.1.4.10.1 Messages

3.1.4.10.1.1 RenameDistributionGroupSoapIn

This is the request message for a **RenameDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/RenameDistributionGroup
```

The SOAP body contains a **RenameDistributionGroup** element.

3.1.4.10.1.2 RenameDistributionGroupSoapOut

This is the response message for a **RenameDistributionGroup** operation.

The SOAP action value of the message is defined as follows.

```
http://microsoft.com/webservices/SharePoint/SharepointEmailWS/RenameDistributionGroup
```

The SOAP body contains a **RenameDistributionGroupResponse** element.

3.1.4.10.2 Elements

3.1.4.10.2.1 RenameDistributionGroup

The definition of the **RenameDistributionGroup** is as follows.

```
<s:element name="RenameDistributionGroup">
<s:complexType>
<s:sequence>
<s:element name="OldAlias" type="s:string" />
<s:element name="NewAlias" type="s:string" />
<s:element name="Info" type="tns:RequestInfo" />
</s:sequence>
</s:complexType>
</s:element>
```

OldAlias: The e-mail alias of the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

NewAlias: The new e-mail alias for the distribution list. This value MUST be 255 or fewer characters. Additional limitations on this value are specified in [MS-ADA1] section 2.110.

Info: A **RequestInfo** complex type (section 2.2.4.2) that contains additional information about the request.

3.1.4.10.2.2 RenameDistributionGroupResponse

The definition of the **RenameDistributionGroupResponse** element is as follows.

```
<s:element name="RenameDistributionGroupResponse">
<s:complexType>
<s:sequence>
<s:element name="RenameDistributionGroupResult" type="tns:RequestResponse" />
</s:sequence>
</s:complexType>
</s:element>
```

RenameDistributionGroupResult: The protocol server MUST return a **RequestResponse** complex type (section 2.2.4.3) in the response message. The value of the **JobStatus** element of the **RequestResponse** type MUST be one of the following values:

Value	Description
RequestStatus.ServiceNotConfigured	The directory service is not configured.
RequestStatus.InvalidArgument	The value specified by the **OldAlias** element or the **NewAlias** element is not valid, or the **RequestorEmail** element of the **Info** element is NULL.
RequestStatus.ObjectNotFound	The value specified by the **OldAlias** element cannot be found in the directory service.
RequestStatus.DuplicateAlias	The value specified by the **NewAlias** element already exists in the

Value	Description
	directory service.
RequestStatus.AccessDenied	Automatic approvals are enabled and the protocol client does not have sufficient permission to access one or more of the objects that are needed for the operation.
RequestStatus.ServerUnavailable	Automatic approvals are enabled and a protocol server that is required for the operation cannot be accessed.
RequestStatus.InternalError	The operation failed because an unexpected internal error occurred or the **e-mail alias** specified in the **NewAlias** element was rejected by the protocol server.
RequestStatus.PendingApproval	Automatic approvals are disabled and a job was created for the request.
RequestStatus.Success	Automatic approvals are enabled and the operation finished successfully.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

4.1 Create and Add Contacts to a Distribution List

This scenario demonstrates how to create a new distribution list, add a contact (3) to a distribution list, and verify that the requests were approved.

4.1.1 Create a Distribution List

In this example, a new distribution list named "DistGroup01" is created on the protocol server, in response to a request from a protocol client. The e-mail alias of the distribution list is "DistGroup01".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <CreateDistributionGroup
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>DistGroup01</Alias>
            <Name>DistGroup01</Name>
            <ContactCN />
            <Info>
                <RequestorEmail>adam.carter@example.com</RequestorEmail>
                <RequestId>00000000-0000-0000-0000-000000000000</RequestId>
            </Info>
            <Flags>None</Flags>
        </CreateDistributionGroup>
    </soap:Body>
</soap:Envelope>
```

The protocol server is configured to approve requests automatically. Therefore, it creates the distribution list and returns the status value "Success" in the following response message:

```
<soap:Envelope 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:Body>
        <CreateDistributionGroupResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <CreateDistributionGroupResult>
                <JobID>0</JobID>
                <JobStatus>Success</JobStatus>
                <Alias>DistGroup01</Alias>
            </CreateDistributionGroupResult>
        </CreateDistributionGroupResponse>
    </soap:Body>
</soap:Envelope>
```

4.1.2 Add a Contact to a Distribution List

In this example, the domain account "Example\smasters" is added to a distribution list named "addmembersdl".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <ChangeUsersMembershipInDistributionGroup
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>addmembersdl</Alias>
            <AddNt4NameList>
                <string>Example\smasters</string>
            </AddNt4NameList>
            <DeleteNt4NameList />
            <DeleteAllCurrentMembers>false</DeleteAllCurrentMembers>
        </ChangeUsersMembershipInDistributionGroup>
    </soap:Body>
</soap:Envelope>
```

The protocol server adds the domain account "Example\smasters" to the distribution list named "addmembersdl" and returns the status value "Success" in the following response message:

```
<soap:Envelope 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:Body>
        <ChangeUsersMembershipInDistributionGroupResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <ChangeUsersMembershipInDistributionGroupResult>Success</ChangeUsersMembershipInD
istributionGroupResult>
        </ChangeUsersMembershipInDistributionGroupResponse>
    </soap:Body>
</soap:Envelope>
```

4.2   Create and Add a Contact to a Distribution List

This scenario demonstrates how to create a new contact (3) and how to add a contact (3) to an existing distribution list.

4.2.1   Create a Contact

In this example, a contact (3) named "Steve Masters" is added to the directory service. The contact's e-mail alias is "Steve.Masters". The contact's forwarding e-mail address is "Steve.Masters@example.com".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <CreateContact
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>Steve.Masters</Alias>
            <FirstName>Steve</FirstName>
            <LastName>Masters</LastName>
            <ForwardingEmail>steve.masters@example.com</ForwardingEmail>
```

```
                <Flags>None</Flags>
            </CreateContact>
        </soap:Body>
    </soap:Envelope>
```

The protocol server adds the domain account "Example\smasters" to the directory service and returns the status value "Success" in the following response message:

```
<soap:Envelope 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:Body>
        <CreateContactResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <CreateContactResult>Success</CreateContactResult>
        </CreateContactResponse>
    </soap:Body>
</soap:Envelope>
```

4.2.2 Add a Contact to a Distribution List

In this example, a contact (3) with the e-mail alias "Lori.Kane" is added to the distribution list named "AddMembersDL".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <ChangeContactsMembershipInDistributionGroup
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>AddMembersDL</Alias>
            <AddListForContacts>
                <string>Lori.Kane</string>
            </AddListForContacts>
            <DeleteListForContacts>
                <string />
            </DeleteListForContacts>
            <DeleteAllCurrentMembers>false</DeleteAllCurrentMembers>
        </ChangeContactsMembershipInDistributionGroup>
    </soap:Body>
</soap:Envelope>
```

The protocol server adds the contact (3) to the distribution list and returns the status value "Success" in the following response message:

```
<soap:Envelope 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:Body>
        <ChangeContactsMembershipInDistributionGroupResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <ChangeContactsMembershipInDistributionGroupResult>Success</ChangeContactsMembers
hipInDistributionGroupResult>
```

```
        </ChangeContactsMembershipInDistributionGroupResponse>
      </soap:Body>
   </soap:Envelope>
```

4.3 Modify a Contact

This scenario demonstrates how to modify an existing contact (3) in a directory service. The contact's e-mail alias is changed from "steve.masters" to "steved.masters". The contact's name is changed from "Steve Masters" to "Steve D Masters". The contact's forwarding e-mail address is changed from "steve.masters@example.com" to "steved.masters@example.com".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <ModifyContact
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <OldAlias>steve.masters</OldAlias>
            <NewAlias>steved.masters</NewAlias>
            <FirstName>Steve D</FirstName>
            <LastName>Masters</LastName>
            <ForwardingEmail>steved.masters@example.com</ForwardingEmail>
            <Flags>None</Flags>
        </ModifyContact>
    </soap:Body>
</soap:Envelope>
```

The protocol server retrieves the existing contact (3), updates the requested properties of that contact (3), and returns the status value "Success" in the following response message:

```
<soap:Envelope 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:Body>
        <ModifyContactResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <ModifyContactResult>Success</ModifyContactResult>
        </ModifyContactResponse>
    </soap:Body>
</soap:Envelope>
```

4.4 Remove a Contact and Rename a Distribution List

This scenario demonstrates how to remove a contact (3) from a distribution list, delete a contact (3), and rename a distribution list.

4.4.1 Remove a Contact from a Distribution List

In this example, a contact (3) with the e-mail alias "steved.masters" is removed from the distribution list named "AddMembersDL".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <ChangeContactsMembershipInDistributionGroup
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>AddMembersDL</Alias>
            <AddListForContacts>
                <string />
            </AddListForContacts>
            <DeleteListForContacts>
                <string>steved.masters</string>
            </DeleteListForContacts>
            <DeleteAllCurrentMembers>false</DeleteAllCurrentMembers>
        </ChangeContactsMembershipInDistributionGroup>
    </soap:Body>
</soap:Envelope>
```

The protocol server removes the contact (3) from the distribution list and returns the status value
"Success" in the following response message:

```
<soap:Envelope 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:Body>
        <ChangeContactsMembershipInDistributionGroupResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">

<ChangeContactsMembershipInDistributionGroupResult>Success</ChangeContactsMembershipInDistrib
utionGroupResult>
        </ChangeContactsMembershipInDistributionGroupResponse>
    </soap:Body>
</soap:Envelope>
```

4.4.2 Delete a Contact

In this example, the contact (3) with the e-mail alias "steved.masters" is deleted from the directory
service.

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <DeleteContact
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>steved.masters</Alias>
        </DeleteContact>
    </soap:Body>
</soap:Envelope>
```

The protocol server deletes the contact (3) with the specified e-mail alias, and returns the status
value "Success" in the following response message:

```
<soap:Envelope 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:Body>
        <DeleteContactResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <DeleteContactResult>Success</DeleteContactResult>
        </DeleteContactResponse>
    </soap:Body>
</soap:Envelope>
```

4.4.3 Change the Name of a Distribution List

In this example, a protocol client with the e-mail address "adam.carter@example.com" submits a request to change the e-mail alias of an existing distribution list from "DistGroup01" to "RenamedDG01".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <RenameDistributionGroup
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <OldAlias>DistGroup01</OldAlias>
            <NewAlias>RenamedDG01</NewAlias>
            <Info>
                <RequestorEmail>adam.carter@example.com</RequestorEmail>
                <RequestId>00000000-0000-0000-0000-000000000000</RequestId>
            </Info>
        </RenameDistributionGroup>
    </soap:Body>
</soap:Envelope>
```

The protocol server is not configured to approve requests automatically. Therefore, it creates a job for the request, stores the job as a **RequestStatus** simple type (section 2.2.5.3) with the value "PendingApproval", and returns information about this job in the following response message:

```
<soap:Envelope 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:Body>
        <RenameDistributionGroupResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <RenameDistributionGroupResult>
                <JobID>76</JobID>
                <JobStatus>PendingApproval</JobStatus>
                <Alias>DistGroup01</Alias>
            </RenameDistributionGroupResult>
        </RenameDistributionGroupResponse>
    </soap:Body>
</soap:Envelope>
```

4.5 Modify a Distribution List

In this example, a protocol client with the e-mail address "adam.carter@example.com" submits a request to change the e-mail alias of an existing distribution list from "RenamedDG01" to "NewNameDG01".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <ModifyDistributionGroup
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>RenamedDG01</Alias>
            <Name>NewNameDG01</Name>
<Description>any description</Description>
            <Info>
                <RequestorEmail>adam.carter@example.com</RequestorEmail>
                <RequestId>00000000-0000-0000-0000-000000000000</RequestId>
            </Info>
            <Flags>None</Flags>
        </ModifyDistributionGroup>
    </soap:Body>
</soap:Envelope>
```

The protocol server is not configured to approve requests automatically. Therefore, it creates a job for the modify request, stores that job as a **RequestStatus** simple type (section 2.2.5.3) with the value "PendingApproval", and returns information about the job in the following response message:

```
<soap:Envelope 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:Body>
        <ModifyDistributionGroupResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <ModifyDistributionGroupResult>
                <JobID>78</JobID>
                <JobStatus>PendingApproval</JobStatus>
                <Alias>RenamedDG01</Alias>
            </ModifyDistributionGroupResult>
        </ModifyDistributionGroupResponse>
    </soap:Body>
</soap:Envelope>
```

4.6 Delete a Distribution List

In this example, a protocol client with the e-mail address "adam.carter@example.com" submits a request to delete an existing distribution list, which has the e-mail alias "RenamedDG01".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
```

```
        <DeleteDistributionGroup
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>RenamedDG01</Alias>
            <Info>
                <RequestorEmail>adam.carter@example.com</RequestorEmail>
                <RequestId>00000000-0000-0000-0000-000000000000</RequestId>
            </Info>
        </DeleteDistributionGroup>
    </soap:Body>
</soap:Envelope>
```

The protocol server is configured to approve requests automatically. Therefore, it deletes the distribution list and returns the status value "Success" in the following response message:

```
<soap:Envelope 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:Body>
        <DeleteDistributionGroupResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <DeleteDistributionGroupResult>
                <JobID>0</JobID>
                <JobStatus>Success</JobStatus>
                <Alias>RenamedDG01</Alias>
            </DeleteDistributionGroupResult>
        </DeleteDistributionGroupResponse>
    </soap:Body>
</soap:Envelope>
```

4.7   Check the Status of a Deletion Request

This scenario demonstrates how to delete a distribution list and check the status of that request before and after the request is processed by the protocol server.

4.7.1   Delete a Distribution List

In this example, a protocol client with the e-mail address "adam.carter@example.com" submits a request to delete the existing distribution list that has the e-mail alias "SorosalDL6".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <DeleteDistributionGroup
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <Alias>SorosalDL6</Alias>
            <Info>
                <RequestorEmail>adam.carter@example.com</RequestorEmail>
                <RequestId>00000000-0000-0000-0000-000000000000</RequestId>
            </Info>
        </DeleteDistributionGroup>
    </soap:Body>
</soap:Envelope>
```

The protocol server is not configured to approve requests automatically. Therefore, it creates a job for the request, stores that job as a **RequestStatus** simple type (section 2.2.5.3) with the value "PendingApproval", and returns information about the job in the following response message:

```
<soap:Envelope 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:Body>
        <DeleteDistributionGroupResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <DeleteDistributionGroupResult>
                <JobID>108</JobID>
                <JobStatus>PendingApproval</JobStatus>
                <Alias>SorosalDL6</Alias>
            </DeleteDistributionGroupResult>
        </DeleteDistributionGroupResponse>
    </soap:Body>
</soap:Envelope>
```

4.7.2   Check the Status of a Job

In this example, a protocol client submits a request to check the status of a job that is associated with the job identifier "108".

The protocol client sends the following request message:

```
<soap:Envelope 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:Body>
        <GetJobStatus xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <JobId>108</JobId>
        </GetJobStatus>
    </soap:Body>
</soap:Envelope>
```

By referencing the **JobID** element of the **RequestResponse** complex type (section 2.2.4.3) that stores information about the job, the protocol server finds the job, retrieves the status, and sends the following response message:

```
<soap:Envelope 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:Body>
        <GetJobStatusResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <GetJobStatusResult>
                <JobID>108</JobID>
                <Comment />
                <JobStatus>PendingApproval</JobStatus>
                <Alias>SorosalDL6</Alias>
            </GetJobStatusResult>
        </GetJobStatusResponse>
    </soap:Body>
</soap:Envelope>
```

After the job completes successfully, the protocol server deletes it from the list of jobs and returns the following response message:

```
<soap:Envelope 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:Body>
        <GetJobStatusResponse
xmlns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
            <GetJobStatusResult>
                <JobID>108</JobID>
                <Comment />
                <JobStatus>Success</JobStatus>
                <Alias>SorosalDL6</Alias>
            </GetJobStatusResult>
        </GetJobStatusResponse>
    </soap:Body>
</soap:Envelope>
```

If a protocol client requests the status of the job after it is deleted, the protocol server returns the following error:

```
System.Reflection.TargetInvocationException: Exception has been thrown by the target of an
invocation. ---> System.Web.Services.Protocols.SoapException: Server was unable to process
request. ---> Value does not fall within the expected range.
   at System.Web.Services.Protocols.SoapHttpClientProtocol.ReadResponse(SoapClientMessage
message, WebResponse response, Stream responseStream, Boolean asyncCall)
   at System.Web.Services.Protocols.SoapHttpClientProtocol.Invoke(String methodName, Object[]
parameters)
   at WebSvcClient.SharepointEmailWSProxy.SharepointEmailWS.GetJobStatus(Int32 JobId)
   --- End of inner exception stack trace ---
   at System.RuntimeMethodHandle._InvokeMethodFast(Object target, Object[] arguments,
SignatureStruct& sig, MethodAttributes methodAttributes, RuntimeTypeHandle typeOwner)
   at System.RuntimeMethodHandle.InvokeMethodFast(Object target, Object[] arguments,
Signature sig, MethodAttributes methodAttributes, RuntimeTypeHandle typeOwner)
   at System.Reflection.RuntimeMethodInfo.Invoke(Object obj, BindingFlags invokeAttr, Binder
binder, Object[] parameters, CultureInfo culture, Boolean skipVisibilityChecks)
   at System.Reflection.RuntimeMethodInfo.Invoke(Object obj, BindingFlags invokeAttr, Binder
binder, Object[] parameters, CultureInfo culture)
   at WebSvcClient.ProxyWrapper.WebMethodCallWorker()
```

5   Security

5.1   Security Considerations for Implementers

None.

5.2   Index of Security Parameters

None.

6 Appendix A: Full WSDL

For ease of implementation the full WSDL is provided below:

```xml
<?xml version="1.0" encoding="utf-8"?>
  <wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
targetNamespace="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:documentation xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">Sharepoint Email
Integration Web Service</wsdl:documentation>
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/">
      <s:import namespace="http://microsoft.com/wsdl/types/" />
        <s:element name="CreateContact">
          <s:complexType>
            <s:sequence>
              <s:element name="Alias" type="s:string" />
              <s:element name="FirstName" type="s:string" />
              <s:element name="LastName" type="s:string" />
              <s:element name="ForwardingEmail" type="s:string" />
              <s:element name="Flags" type="tns:ContactFlags" />
            </s:sequence>
          </s:complexType>
        </s:element>
        <s:simpleType name="ContactFlags">
          <s:restriction base="s:string">
            <s:enumeration value="None" />
            <s:enumeration value="OnlyAllowAuthenticatedEmail" />
          </s:restriction>
        </s:simpleType>
        <s:element name="CreateContactResponse">
          <s:complexType>
            <s:sequence>
              <s:element name="CreateContactResult" type="tns:RequestStatus" />
            </s:sequence>
          </s:complexType>
        </s:element>
        <s:simpleType name="RequestStatus">
          <s:restriction base="s:string">
            <s:enumeration value="Success" />
            <s:enumeration value="PendingApproval" />
            <s:enumeration value="ApprovalDenied" />
            <s:enumeration value="DuplicateAlias" />
            <s:enumeration value="InvalidArgument" />
            <s:enumeration value="ServiceNotConfigured" />
            <s:enumeration value="AccessDenied" />
            <s:enumeration value="ServerUnavailable" />
            <s:enumeration value="ObjectNotFound" />
            <s:enumeration value="InvalidMember" />
            <s:enumeration value="InternalError" />
          </s:restriction>
```

```
            </s:simpleType>
            <s:element name="DeleteContact">
               <s:complexType>
                  <s:sequence>
                     <s:element name="Alias" type="s:string" />
                  </s:sequence>
               </s:complexType>
            </s:element>
            <s:element name="DeleteContactResponse">
               <s:complexType>
                  <s:sequence>
                     <s:element name="DeleteContactResult" type="tns:RequestStatus" />
                  </s:sequence>
               </s:complexType>
            </s:element>
            <s:element name="ModifyContact">
               <s:complexType>
                  <s:sequence>
                     <s:element name="OldAlias" type="s:string" />
                     <s:element minOccurs="0" name="NewAlias" type="s:string" />
                     <s:element name="FirstName" type="s:string" />
                     <s:element name="LastName" type="s:string" />
                     <s:element minOccurs="0" name="ForwardingEmail" type="s:string" />
                     <s:element name="Flags" type="tns:ContactFlags" />
                  </s:sequence>
               </s:complexType>
            </s:element>
            <s:element name="ModifyContactResponse">
               <s:complexType>
                  <s:sequence>
                     <s:element name="ModifyContactResult" type="tns:RequestStatus" />
                  </s:sequence>
               </s:complexType>
            </s:element>
            <s:element name="CreateDistributionGroup">
               <s:complexType>
                  <s:sequence>
                     <s:element name="Alias" type="s:string" />
                     <s:element name="Name" type="s:string" />
                     <s:element minOccurs="0" name="Description" type="s:string" />
                     <s:element minOccurs="0" name="ContactCN" type="s:string" />
                     <s:element name="Info" type="tns:RequestInfo" />
                     <s:element name="Flags" type="tns:DistributionGroupFlags" />
                  </s:sequence>
               </s:complexType>
            </s:element>
            <s:complexType name="RequestInfo">
               <s:sequence>
                  <s:element name="RequestorEmail" type="s:string" />
                  <s:element minOccurs="0" name="Justification" type="s:string" />
                  <s:element name="RequestId" type="s1:guid" />
               </s:sequence>
            </s:complexType>
            <s:element name="CreateDistributionGroupResponse">
               <s:complexType>
                  <s:sequence>
                     <s:element name="CreateDistributionGroupResult"
  type="tns:RequestResponse" />
                  </s:sequence>
```

```
                    </s:complexType>
                </s:element>
                <s:complexType name="RequestResponse">
                    <s:sequence>
                        <s:element name="JobID" type="s:int" />
                        <s:element minOccurs="0" name="Comment" type="s:string" />
                        <s:element name="JobStatus" type="tns:RequestStatus" />
                        <s:element minOccurs="0" name="Alias" type="s:string" />
                    </s:sequence>
                </s:complexType>
                <s:element name="DeleteDistributionGroup">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="Alias" type="s:string" />
                            <s:element name="Info" type="tns:RequestInfo" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:element name="DeleteDistributionGroupResponse">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="DeleteDistributionGroupResult"
  type="tns:RequestResponse" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:element name="RenameDistributionGroup">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="OldAlias" type="s:string" />
                            <s:element name="NewAlias" type="s:string" />
                            <s:element name="Info" type="tns:RequestInfo" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:element name="RenameDistributionGroupResponse">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="RenameDistributionGroupResult"
  type="tns:RequestResponse" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:element name="ModifyDistributionGroup">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="Alias" type="s:string" />
                            <s:element name="Name" type="s:string" />
                            <s:element minOccurs="0" name="Description" type="s:string" />
                            <s:element minOccurs="0" name="ContactCN" type="s:string" />
                            <s:element name="Info" type="tns:RequestInfo" />
                            <s:element name="Flags" type="tns:DistributionGroupFlags" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:simpleType name="DistributionGroupFlags">
                    <s:restriction base="s:string">
                        <s:enumeration value="None" />
                        <s:enumeration value="OnlyAllowAuthenticatedEmail" />
```

```
                    </s:restriction>
                </s:simpleType>
                <s:element name="ModifyDistributionGroupResponse">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="ModifyDistributionGroupResult"
type="tns:RequestResponse" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:element name="GetJobStatus">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="JobId" type="s:int" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:element name="GetJobStatusResponse">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="GetJobStatusResult" type="tns:RequestResponse" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:element name="ChangeUsersMembershipInDistributionGroup">
                    <s:complexType>
                        <s:sequence>
                            <s:element minOccurs="0" name="Alias" type="s:string" />
                            <s:element minOccurs="0" name="AddNt4NameList" type="tns:ArrayOfString"
 />
                            <s:element minOccurs="0" name="DeleteNt4NameList"
type="tns:ArrayOfString" />
                            <s:element name="DeleteAllCurrentMembers" type="s:boolean" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:complexType name="ArrayOfString">
                    <s:sequence>
                        <s:element minOccurs="0" maxOccurs="unbounded" name="string"
nillable="true" type="s:string" />
                    </s:sequence>
                </s:complexType>
                <s:element name="ChangeUsersMembershipInDistributionGroupResponse">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="ChangeUsersMembershipInDistributionGroupResult"
type="tns:RequestStatus" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
                <s:element name="ChangeContactsMembershipInDistributionGroup">
                    <s:complexType>
                        <s:sequence>
                            <s:element name="Alias" type="s:string" />
                            <s:element minOccurs="0" name="AddListForContacts"
type="tns:ArrayOfString" />
                            <s:element minOccurs="0" name="DeleteListForContacts"
type="tns:ArrayOfString" />
                            <s:element name="DeleteAllCurrentMembers" type="s:boolean" />
```

```
                </s:sequence>
              </s:complexType>
            </s:element>
            <s:element name="ChangeContactsMembershipInDistributionGroupResponse">
              <s:complexType>
                <s:sequence>
                  <s:element name="ChangeContactsMembershipInDistributionGroupResult"
type="tns:RequestStatus" />
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:schema>
          <s:schema elementFormDefault="qualified"
targetNamespace="http://microsoft.com/wsdl/types/">
            <s:simpleType name="guid">
              <s:restriction base="s:string">
                <s:pattern value="[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-
F]{4}-[0-9a-fA-F]{12}" />
              </s:restriction>
            </s:simpleType>
          </s:schema>
       </wsdl:types>
   <wsdl:message name="CreateContactSoapIn">
      <wsdl:part name="parameters" element="tns:CreateContact" />
   </wsdl:message>
   <wsdl:message name="CreateContactSoapOut">
      <wsdl:part name="parameters" element="tns:CreateContactResponse" />
   </wsdl:message>
   <wsdl:message name="DeleteContactSoapIn">
      <wsdl:part name="parameters" element="tns:DeleteContact" />
   </wsdl:message>
   <wsdl:message name="DeleteContactSoapOut">
      <wsdl:part name="parameters" element="tns:DeleteContactResponse" />
   </wsdl:message>
   <wsdl:message name="ModifyContactSoapIn">
      <wsdl:part name="parameters" element="tns:ModifyContact" />
   </wsdl:message>
   <wsdl:message name="ModifyContactSoapOut">
   <wsdl:part name="parameters" element="tns:ModifyContactResponse" />
   </wsdl:message>
   <wsdl:message name="CreateDistributionGroupSoapIn">
      <wsdl:part name="parameters" element="tns:CreateDistributionGroup" />
   </wsdl:message>
   <wsdl:message name="CreateDistributionGroupSoapOut">
      <wsdl:part name="parameters" element="tns:CreateDistributionGroupResponse" />
   </wsdl:message>
   <wsdl:message name="DeleteDistributionGroupSoapIn">
      <wsdl:part name="parameters" element="tns:DeleteDistributionGroup" />
   </wsdl:message>
   <wsdl:message name="DeleteDistributionGroupSoapOut">
      <wsdl:part name="parameters" element="tns:DeleteDistributionGroupResponse" />
   </wsdl:message>
   <wsdl:message name="RenameDistributionGroupSoapIn">
      <wsdl:part name="parameters" element="tns:RenameDistributionGroup" />
   </wsdl:message>
   <wsdl:message name="RenameDistributionGroupSoapOut">
      <wsdl:part name="parameters" element="tns:RenameDistributionGroupResponse" />
   </wsdl:message>
   <wsdl:message name="ModifyDistributionGroupSoapIn">
```

```
         <wsdl:part name="parameters" element="tns:ModifyDistributionGroup" />
      </wsdl:message>
      <wsdl:message name="ModifyDistributionGroupSoapOut">
         <wsdl:part name="parameters" element="tns:ModifyDistributionGroupResponse" />
      </wsdl:message>
      <wsdl:message name="GetJobStatusSoapIn">
         <wsdl:part name="parameters" element="tns:GetJobStatus" />
      </wsdl:message>
      <wsdl:message name="GetJobStatusSoapOut">
         <wsdl:part name="parameters" element="tns:GetJobStatusResponse" />
      </wsdl:message>
      <wsdl:message name="ChangeUsersMembershipInDistributionGroupSoapIn">
         <wsdl:part name="parameters" element="tns:ChangeUsersMembershipInDistributionGroup" />
      </wsdl:message>
      <wsdl:message name="ChangeUsersMembershipInDistributionGroupSoapOut">
         <wsdl:part name="parameters"
 element="tns:ChangeUsersMembershipInDistributionGroupResponse" />
      </wsdl:message>
      <wsdl:message name="ChangeContactsMembershipInDistributionGroupSoapIn">
         <wsdl:part name="parameters" element="tns:ChangeContactsMembershipInDistributionGroup"
 />
      </wsdl:message>
      <wsdl:message name="ChangeContactsMembershipInDistributionGroupSoapOut">
         <wsdl:part name="parameters"
 element="tns:ChangeContactsMembershipInDistributionGroupResponse" />
      </wsdl:message>
      <wsdl:portType name="SharepointEmailWSSoap">
         <wsdl:operation name="CreateContact">
            <wsdl:input message="tns:CreateContactSoapIn" />
            <wsdl:output message="tns:CreateContactSoapOut" />
         </wsdl:operation>
         <wsdl:operation name="DeleteContact">
            <wsdl:input message="tns:DeleteContactSoapIn" />
            <wsdl:output message="tns:DeleteContactSoapOut" />
         </wsdl:operation>
         <wsdl:operation name="ModifyContact">
            <wsdl:input message="tns:ModifyContactSoapIn" />
            <wsdl:output message="tns:ModifyContactSoapOut" />
         </wsdl:operation>
         <wsdl:operation name="CreateDistributionGroup">
            <wsdl:input message="tns:CreateDistributionGroupSoapIn" />
            <wsdl:output message="tns:CreateDistributionGroupSoapOut" />
         </wsdl:operation>
         <wsdl:operation name="DeleteDistributionGroup">
            <wsdl:input message="tns:DeleteDistributionGroupSoapIn" />
            <wsdl:output message="tns:DeleteDistributionGroupSoapOut" />
         </wsdl:operation>
         <wsdl:operation name="RenameDistributionGroup">
            <wsdl:input message="tns:RenameDistributionGroupSoapIn" />
            <wsdl:output message="tns:RenameDistributionGroupSoapOut" />
         </wsdl:operation>
         <wsdl:operation name="ModifyDistributionGroup">
            <wsdl:input message="tns:ModifyDistributionGroupSoapIn" />
            <wsdl:output message="tns:ModifyDistributionGroupSoapOut" />
         </wsdl:operation>
         <wsdl:operation name="GetJobStatus">
            <wsdl:input message="tns:GetJobStatusSoapIn" />
            <wsdl:output message="tns:GetJobStatusSoapOut" />
         </wsdl:operation>
```

```xml
        <wsdl:operation name="ChangeUsersMembershipInDistributionGroup">
            <wsdl:input message="tns:ChangeUsersMembershipInDistributionGroupSoapIn" />
            <wsdl:output message="tns:ChangeUsersMembershipInDistributionGroupSoapOut" />
        </wsdl:operation>
        <wsdl:operation name="ChangeContactsMembershipInDistributionGroup">
            <wsdl:input message="tns:ChangeContactsMembershipInDistributionGroupSoapIn" />
            <wsdl:output message="tns:ChangeContactsMembershipInDistributionGroupSoapOut" />
        </wsdl:operation>
    </wsdl:portType>
    <wsdl:binding name="SharepointEmailWSSoap" type="tns:SharepointEmailWSSoap">
        <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
        <wsdl:operation name="CreateContact">
            <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/CreateContact"
style="document" />
            <wsdl:input>
                <soap:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="DeleteContact">
            <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/DeleteContact"
style="document" />
            <wsdl:input>
                <soap:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="ModifyContact">
            <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ModifyContact"
style="document" />
            <wsdl:input>
                <soap:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="CreateDistributionGroup">
            <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/CreateDistributionG
roup" style="document" />
            <wsdl:input>
                <soap:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="DeleteDistributionGroup">
            <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/DeleteDistributionG
roup" style="document" />
            <wsdl:input>
```

```
            <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="RenameDistributionGroup">
         <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/RenameDistributionG
roup" style="document" />
         <wsdl:input>
            <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="ModifyDistributionGroup">
         <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ModifyDistributionG
roup" style="document" />
         <wsdl:input>
            <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="GetJobStatus">
         <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/GetJobStatus"
style="document" />
         <wsdl:input>
            <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="ChangeUsersMembershipInDistributionGroup">
         <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ChangeUsersMembersh
ipInDistributionGroup" style="document" />
         <wsdl:input>
            <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap:body use="literal" />
         </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="ChangeContactsMembershipInDistributionGroup">
         <soap:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ChangeContactsMembe
rshipInDistributionGroup" style="document" />
         <wsdl:input>
            <soap:body use="literal" />
         </wsdl:input>
         <wsdl:output>
            <soap:body use="literal" />
         </wsdl:output>
```

```
        </wsdl:operation>
    </wsdl:binding>
    <wsdl:binding name="SharepointEmailWSSoap12" type="tns:SharepointEmailWSSoap">
        <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
        <wsdl:operation name="CreateContact">
            <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/CreateContact"
style="document" />
            <wsdl:input>
                <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap12:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="DeleteContact">
            <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/DeleteContact"
style="document" />
            <wsdl:input>
                <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap12:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="ModifyContact">
            <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ModifyContact"
style="document" />
            <wsdl:input>
                <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap12:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="CreateDistributionGroup">
            <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/CreateDistributionG
roup" style="document" />
            <wsdl:input>
                <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap12:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="DeleteDistributionGroup">
            <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/DeleteDistributionG
roup" style="document" />
            <wsdl:input>
                <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                <soap12:body use="literal" />
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="RenameDistributionGroup">
```

```
              <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/RenameDistributionG
roup" style="document" />
          <wsdl:input>
              <soap12:body use="literal" />
          </wsdl:input>
          <wsdl:output>
              <soap12:body use="literal" />
          </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="ModifyDistributionGroup">
          <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ModifyDistributionG
roup" style="document" />
          <wsdl:input>
              <soap12:body use="literal" />
          </wsdl:input>
          <wsdl:output>
              <soap12:body use="literal" />
          </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="GetJobStatus">
          <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/GetJobStatus"
style="document" />
          <wsdl:input>
              <soap12:body use="literal" />
          </wsdl:input>
          <wsdl:output>
              <soap12:body use="literal" />
          </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="ChangeUsersMembershipInDistributionGroup">
          <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ChangeUsersMembersh
ipInDistributionGroup" style="document" />
          <wsdl:input>
              <soap12:body use="literal" />
          </wsdl:input>
          <wsdl:output>
              <soap12:body use="literal" />
          </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="ChangeContactsMembershipInDistributionGroup">
          <soap12:operation
soapAction="http://microsoft.com/webservices/SharePoint/SharepointEmailWS/ChangeContactsMembe
rshipInDistributionGroup" style="document" />
          <wsdl:input>
              <soap12:body use="literal" />
          </wsdl:input>
          <wsdl:output>
              <soap12:body use="literal" />
          </wsdl:output>
      </wsdl:operation>
   </wsdl:binding>
</wsdl:definitions>
```

7 Appendix B: Product Behavior

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

- The 2007 Microsoft® Office system

- Microsoft® Office 2010 suites

- Microsoft® SharePoint® Foundation 2010

- Windows® SharePoint® Services 3.0

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.

8 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

9 Index