[MS-OXWSCEXT]:

Client Extension Web Service Protocol

Intellectual Property Rights Notice for Open Specifications Documentation

- **Technical Documentation.** Microsoft publishes Open Specifications documentation ("this documentation") for protocols, file formats, data portability, computer languages, and standards support. Additionally, overview documents cover inter-protocol relationships and interactions.

- **Copyrights**. This documentation is covered by Microsoft copyrights. Regardless of any other terms that are contained in the terms of use for the Microsoft website that hosts this documentation, you can make copies of it in order to develop implementations of the technologies that are described in this documentation and can distribute portions of it in your implementations that use these technologies or in your documentation as necessary to properly document the implementation. You can also distribute in your implementation, with or without modification, any schemas, IDLs, or code samples that are included in the documentation. This permission also applies to any documents that are referenced in the Open Specifications documentation.

- **No Trade Secrets**. Microsoft does not claim any trade secret rights in this documentation.

- **Patents**. Microsoft has patents that might cover your implementations of the technologies described in the Open Specifications documentation. Neither this notice nor Microsoft's delivery of this documentation grants any licenses under those patents or any other Microsoft patents. However, a given Open Specifications document might be covered by the Microsoft Open Specifications Promise or the Microsoft Community Promise. If you would prefer a written license, or if the technologies described in this documentation are not covered by the Open Specifications Promise or Community Promise, as applicable, patent licenses are available by contacting iplg@microsoft.com.

- **Trademarks**. The names of companies and products contained in this documentation might be covered by trademarks or similar intellectual property rights. This notice does not grant any licenses under those rights. For a list of Microsoft trademarks, visit www.microsoft.com/trademarks.

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

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

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

Revision Summary

Date	Revision History	Revision Class	Comments
7/16/2012	0.1	New	Released new document.
10/8/2012	1.0	Major	Significantly changed the technical content.
2/11/2013	1.1	Minor	Clarified the meaning of the technical content.
7/26/2013	1.1	None	No changes to the meaning, language, or formatting of the technical content.
11/18/2013	1.1	None	No changes to the meaning, language, or formatting of the technical content.
2/10/2014	1.1	None	No changes to the meaning, language, or formatting of the technical content.
4/30/2014	1.2	Minor	Clarified the meaning of the technical content.
7/31/2014	1.3	Minor	Clarified the meaning of the technical content.
10/30/2014	1.3	None	No changes to the meaning, language, or formatting of the technical content.
3/16/2015	2.0	Major	Significantly changed the technical content.
5/26/2015	2.0	None	No changes to the meaning, language, or formatting of the technical content.
9/14/2015	3.0	Major	Significantly changed the technical content.
6/13/2016	4.0	Major	Significantly changed the technical content.

Table of Contents

1   Introduction

The Client Extension Web Service Protocol enables clients to use a **web service** to install, uninstall, and disable mail add-ins.

Sections 1.5, 1.8, 1.9, 2, and 3 of this specification are normative. All other sections and examples in this specification are informative.

1.1   Glossary

This document uses the following terms:

base64 encoding: A binary-to-text encoding scheme whereby an arbitrary sequence of bytes is converted to a sequence of printable ASCII characters, as described in [RFC4648].

endpoint: A communication port that is exposed by an application server for a specific shared service and to which messages can be addressed.

Hypertext Transfer Protocol (HTTP): An application-level protocol for distributed, collaborative, hypermedia information systems (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Hypertext Transfer Protocol Secure (HTTPS): An extension of HTTP that securely encrypts and decrypts web page requests. In some older protocols, "Hypertext Transfer Protocol over Secure Sockets Layer" is still used (Secure Sockets Layer has been deprecated). For more information, see [SSL3] and [RFC5246].

mail add-in: An Office Add-in that enhances an email or appointment item.

mailbox: A message store that contains email, calendar items, and other Message objects for a single recipient.

SOAP: A lightweight protocol for exchanging structured information in a decentralized, distributed environment. **SOAP** uses **XML** technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation-specific semantics. SOAP 1.2 supersedes SOAP 1.1. See [SOAP1.2-1/2003].

SOAP action: The HTTP request header field used to indicate the intent of the **SOAP** request, using a URI value. See [SOAP1.1] section 6.1.1 for more information.

SOAP body: A container for the payload data being delivered by a SOAP message to its recipient. See [SOAP1.2-1/2007] section 5.3 for more information.

SOAP header: A mechanism for implementing extensions to a SOAP message in a decentralized manner without prior agreement between the communicating parties. See [SOAP1.2-1/2007] section 5.2 for more information.

Uniform Resource Locator (URL): A string of characters in a standardized format that identifies a document or resource on the World Wide Web. The format is as specified in [RFC1738].

web server: A server computer that hosts websites and responds to requests from applications.

web service: A unit of application logic that provides data and services to other applications and can be called by using standard Internet transport protocols such as **HTTP**, Simple Mail Transfer Protocol (SMTP), or File Transfer Protocol (FTP). Web services can perform functions that range from simple requests to complicated business processes.

Web Services Description Language (WSDL): An XML format for describing network services as a set of endpoints that operate on messages that contain either document-oriented or procedure-oriented information. The operations and messages are described abstractly and are bound to a concrete network protocol and message format in order to define an endpoint. Related concrete endpoints are combined into abstract endpoints, which describe a network service. WSDL is extensible, which allows the description of endpoints and their messages regardless of the message formats or network protocols that are used.

WSDL message: An abstract, typed definition of the data that is communicated during a **WSDL operation** [WSDL]. Also, an element that describes the data being exchanged between web service providers and clients.

WSDL operation: A single action or function of a web service. The execution of a WSDL operation typically requires the exchange of messages between the service requestor and the service provider.

WSDL port type: A named set of logically-related, abstract **Web Services Description Language (WSDL)** operations and messages.

XML: The Extensible Markup Language, as described in [XML1.0].

XML namespace: A collection of names that is used to identify elements, types, and attributes in XML documents identified in a URI reference [RFC3986]. A combination of XML namespace and local name allows XML documents to use elements, types, and attributes that have the same names but come from different sources. For more information, see [XMLNS-2ED].

XML namespace prefix: An abbreviated form of an **XML namespace**, as described in [XML].

XML schema: A description of a type of XML document that is typically expressed in terms of constraints on the structure and content of documents of that type, in addition to the basic syntax constraints that are imposed by **XML** itself. An XML schema provides a view of a document type at a relatively high level of abstraction.

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

1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the Errata.

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.

[MS-OXDSCLI] Microsoft Corporation, "Autodiscover Publishing and Lookup Protocol".

[MS-OXWSADISC] Microsoft Corporation, "Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol".

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

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

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

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

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

[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

[WSIBASIC] Ballinger, K., Ehnebuske, D., Gudgin, M., et al., Eds., "Basic Profile Version 1.0", Final Material, April 2004, http://www.ws-i.org/Profiles/BasicProfile-1.0-2004-04-16.html

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

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

[XMLSCHEMA2] Biron, P.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-OWEMXML] Microsoft Corporation, "Office Web Extensibility Manifest Format".

[MS-OWEXML] Microsoft Corporation, "Office Web Extensibility Extensions to Office Open XML Structure Specification".

1.3   Overview

The Client Extension Web Service Protocol enables clients to use a web service to manage mail apps. It provides operations to install, uninstall, and disable mail apps. This protocol also provides operations to retrieve and manage the access token, the manifest file, and the landing page for a **mail add-in**.

1.4   Relationship to Other Protocols

This protocol is used by clients that implement support for Office Web Extensions, as described in [MS-OWEXML] and the Office Web Extensibility Manifest Format, as described in [MS-OWEMXML].

A client that implements this protocol can use the Autodiscover Publishing and Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCLI], to identify the target **endpoint** to use for each operation.

This protocol uses **SOAP**, as described in [SOAP1.1], to specify the structure information that is exchanged between the client and the server. This protocol uses the **XML schema**, as described in [XMLSCHEMA1] and [XMLSCHEMA2], to describe the message content that is sent to and from the server.

This protocol uses SOAP over **HTTP**, as described in [RFC2616], and SOAP over **HTTPS**, as described in [RFC2818], as shown in the following layering diagram.
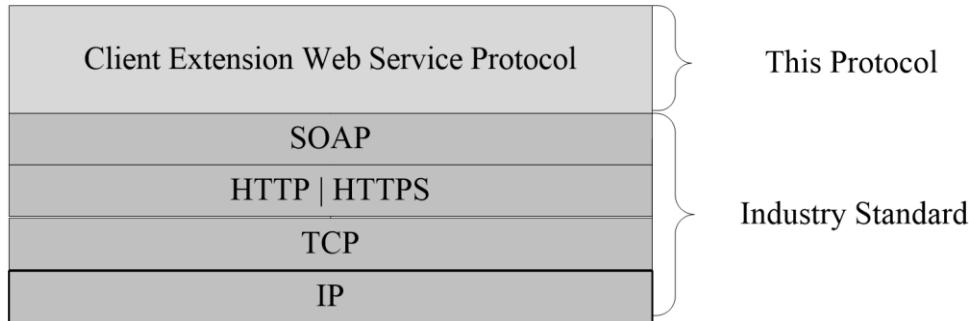
Figure 1: This protocol in relation to other protocols

For conceptual background information and overviews of the relationships and interactions between this and other protocols, see [MS-OXPROTO].

1.5   Prerequisites/Preconditions

The operations that this protocol defines cannot be accessed unless the correct endpoint is identified in the HTTP web requests that target this protocol. This endpoint **URL** is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol, as specified in [MS-OXWSADISC], or the Autodiscover Publishing and Lookup Protocol, as specified in [MS-OXDSCLI].

1.6   Applicability Statement

This protocol is applicable to environments that use web services to implement client extensions for a user's **mailbox**. This protocol is applicable to all SOAP-based clients, as described in [SOAP1.1].

1.7   Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports**: This protocol uses SOAP 1.1, as described in section 2.1.

- **Protocol Versions**: This protocol describes only one **WSDL port type** version. The **RequestServerVersion** element, as described in [MS-OXWSCDATA] section 2.2.4.7, identifies the WSDL port type version of the request. The **ServerVersionInfo** element, as described in [MS-OXWSCDATA] section 2.2.4.8 , identifies the version of the server responding to the request.

- **Security and Authentication Methods**: This protocol relies on the **web server** that is hosting it to perform authentication.

- **Capability Negotiation**: This protocol does not support version negotiation.

1.8   Vendor-Extensible Fields

None.

1.9   Standards Assignments

None.

2 Messages

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

2.1 Transport

This protocol uses SOAP 1.1, as specified in [SOAP1.1].

This protocol MUST support SOAP over HTTP, as specified in [RFC2616]. The protocol SHOULD use secure communications by means of HTTPS, as specified in [RFC2818].

2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses XML schema, as specified in [XMLSCHEMA1] and [XMLSCHEMA2], and Web Services Description Language (WSDL), as specified 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
m	http://schemas.microsoft.com/exchange/services/2006/messages	
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
t	http://schemas.microsoft.com/exchange/services/2006/types	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
wsi	http://ws-i.org/schemas/conformanceClaim/	[WSIBASIC]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]

2.2.2 Messages

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

2.2.3 Elements

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

2.2.4 Complex Types

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

2.2.5 Simple Types

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

2.2.6 Attributes

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

2.2.7 Groups

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

2.2.8 Attribute Groups

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

3   Protocol Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

In the following sections, the schema definition might be less restrictive than the processing rules imposed by the protocol. The WSDL in this specification matches the WSDL that shipped with the product and provides a base description of the schema. The text that introduces the WSDL specifies additional restrictions that reflect actual Microsoft product behavior. For example, the schema definition might allow for an element to be empty, null, or not present but the behavior of the protocol as specified restricts the same elements to being non-empty, not null and present.

3.1   ExchangeServicePortType Server Details

This protocol defines a single WSDL port type with operations that enable clients to install, uninstall, or disable mail apps.

3.1.1   Abstract Data Model

None.

3.1.2   Timers

None.

3.1.3   Initialization

None.

3.1.4   Message Processing Events and Sequencing Rules

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

Operation	Description
DisableApp	The **DisableApp WSDL operation** disables a mail add-in.
GetAppManifests	The **GetAppManifests** WSDL operation retrieves the manifest files for a mail add-in.
GetAppMarketplaceUrl	The **GetAppMarketplaceUrl** WSDL operation retrieves the URL of the marketplace landing page for the mail add-in. The following is the WSDL port type specification of the **GetAppMarketplaceUrl** WSDL operation.
GetClientAccessToken	The **GetClientAccessToken** WSDL operation retrieves a client access token.
InstallApp	The **InstallApp** WSDL operation installs a mail add-in.
UninstallApp	The **UninstallApp** WSDL operation uninstalls a mail add-in.

3.1.4.1 DisableApp

The **DisableApp** WSDL operation disables a mail add-in.

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

```
<wsdl:operation name="DisableApp" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:DisableAppSoapIn"/>
  <wsdl:output message="m:DisableAppSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **DisableApp** WSDL operation.

```
<wsdl:operation name="DisableApp" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DisableApp"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  <wsdl:input>
    <soap:header message="m:DisableAppSoapIn" part="RequestVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:body use="literal" parts="request"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="DisableAppResult"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:header message="m:DisableAppSoapOut" part="ServerVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:output>
</wsdl:operation>
```

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

3.1.4.1.1 Messages

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

Message	Description
DisableAppSoapIn	Specifies a request to disable a mail add-in.
DisableAppSoapOut	Specifies the response to the **DisableAppSoapIn** request WSDL message.

3.1.4.1.1.1 DisableAppSoapIn

The **DisableAppSoapIn** request WSDL message specifies a request to disable a mail add-in.

The following is the **DisableAppSoapIn** WSDL message specification.

```
<wsdl:message name="DisableAppSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:DisableApp"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **DisableAppSoapIn** WSDL message is the input message for the **SOAP action** http://schemas.microsoft.com/exchange/services/2006/messages/DisableApp.

The parts of the **DisableAppSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	**DisableApp** (section 3.1.4.1.2.1)	Specifies the **SOAP body** of the request to disable a mail add-in.
RequestVersion	**RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a **SOAP header** that identifies the schema version for the **DisableApp** WSDL operation request.

3.1.4.1.1.2   DisableAppSoapOut

The **DisableAppSoapOut** WSDL message specifies the response to the **DisableApp** request WSDL message.

The following is the **DisableAppSoapOut** WSDL message specification.

```
<wsdl:message name="DisableAppSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="DisableAppResult" element="m:DisableAppResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **DisableAppSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/DisableApp.

The parts of the **DisableAppSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
DisableAppResult	**DisableAppResponse** (section 3.1.4.1.2.2)	Specifies the SOAP body of the response.
ServerVersion	**ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the server version for the response.

A successful **DisableApp** WSDL operation request returns a **DisableAppResponse** element with the **ResponseClass** ([MS-OXWSCDATA] section 2.2.4.67) attribute set to "Success". The **ResponseCode** ([MS-OXWSCDATA] section 2.2.4.67) element of the **DisableAppResponse** element is set to "NoError".

If the **DisableApp** WSDL operation is not successful, it returns a **DisableAppResponse** element with the **ResponseClass** attribute set to "Error". The **ResponseCode** element of the **DisableAppResponse** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.24.

3.1.4.1.2 Elements

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

Element	Description
DisableApp	The input data for the **DisableApp** WSDL operation.
DisableAppResponse	The result data for the **DisableApp** WSDL operation.

3.1.4.1.2.1   DisableApp

The **DisableApp** element specifies the input data for the **DisableApp** WSDL operation.

```
<xs:element name="DisableApp" type="m:DisableAppType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.1.2.2   DisableAppResponse

The **DisableAppResponse** element specifies the result data for the **DisableApp** WSDL operation.

```
<xs:element name="DisableAppResponse" type="m:DisableAppResponseType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.1.3 Complex Types

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

Complex type	Description
DisableAppResponseType	Specifies the response to a **DisableApp** WSDL operation request.
DisableAppType	Specifies a request to disable a mail add-in.

3.1.4.1.3.1   DisableAppType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **DisableAppType** complex type specifies a request to disable a mail add-in. This type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.17.

```
<xs:complexType name="DisableAppType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="ID" type="xs:string"/>
        <xs:element minOccurs="1" maxOccurs="1" name="DisableReason"
type="t:DisableReasonType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

ID: An element of type **string**, as defined in [XMLSCHEMA2], that identifies the mail add-in.

DisableReason: An element of type **DisableReasonType** that specifies the reason to disable the mail add-in.

3.1.4.1.3.2   DisableAppResponseType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **DisableAppResponseType** complex type specifies the response to a **DisableApp** WSDL operation request. This type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.67.

```
<xs:complexType name="DisableAppResponseType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType"/>
  </xs:complexContent>
</xs:complexType>
```

3.1.4.1.4 Simple Types

The following table summarizes the XML schema simple type definitions that are specific to this operation.

Simple type	Description
DisableReasonType	Indicates the reason the mail add-in is being disabled.

3.1.4.1.4.1   DisableReasonType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **DisableReasonType** simple type indicates the reason the mail add-in is being disabled.

```
<xs:simpleType name="DisableReasonType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NoReason"/>
    <xs:enumeration value="OutlookClientPerformance"/>
    <xs:enumeration value="OWAClientPerformance"/>
    <xs:enumeration value="MobileClientPerformance"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **DisableReasonType** simple type.

Value	Meaning
NoReason	No reason specified.
OutlookClientPerformance	The mail add-in is being disabled from the messaging client due to performance.
OWAClientPerformance	The mail add-in is being disabled from the web client due to performance.
MobileClientPerformance	The mail add-in is being disabled from the mobile client due to performance.

3.1.4.1.5 Attributes

None.

3.1.4.1.6 Groups

None.

3.1.4.1.7 Attribute Groups

None.

3.1.4.2 GetAppManifests

The **GetAppManifests** WSDL operation retrieves the manifest files for a mail add-in.

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

```
<wsdl:operation name="GetAppManifests" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:GetAppManifestsSoapIn"/>
  <wsdl:output message="m:GetAppManifestsSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **GetAppManifests** WSDL operation.

```
<wsdl:operation name="GetAppManifests" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetAppManifests"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  <wsdl:input>
    <soap:header message="m:GetAppManifestsSoapIn" part="RequestVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:body use="literal" parts="request"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="GetAppManifestsResult"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:header message="m:GetAppManifestsSoapOut" part="ServerVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:output>
</wsdl:operation>
```

3.1.4.2.1 Messages

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

Message	Description
GetAppManifestsSoapIn	Specifies a request to retrieve mail add-in manifest files.
GetAppManifestsSoapOut	Specifies the response to the **GetAppManifestsSoapIn** request WSDL message.

3.1.4.2.1.1   GetAppManifestsSoapIn

The **GetAppManifestsSoapIn** WSDL message specifies a request to retrieve mail add-in manifest files.

The following is the **GetAppManifestsSoapIn** WSDL message specification.

```
<wsdl:message name="GetAppManifestsSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:GetAppManifests"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **GetAppManifestsSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/GetAppManifests.

The parts of the **GetAppManifestsSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	**GetAppManifests** (section 3.1.4.2.2.1)	Specifies the SOAP body of the request to retrieve manifest files.
RequestVersion	**RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a SOAP header that identifies the schema version for the **GetAppManifests** WSDL operation request.

3.1.4.2.1.2   GetAppManifestsSoapOut

The **GetAppManifestsSoapOut** WSDL message specifies the response to the
GetAppManifestsSoapIn request WSDL message.

The following is the **GetAppManifestsSoapOut** WSDL message specification.

```
<wsdl:message name="GetAppManifestsSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetAppManifestsResult" element="m:GetAppManifestsResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **GetAppManifestsSoapOut** WSDL message is the output message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/GetAppManifests.

The parts of the **GetAppManifestsSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
GetAppManifestsResult	**GetAppManifestsResponse** (section 3.1.4.2.2.2)	Specifies the SOAP body of the response.
ServerVersion	**ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the server version for the response.

A successful **GetAppManifests** WSDL operation request returns a **GetAppManifestsResponse**
element with the **ResponseClass** ([MS-OXWSCDATA] section 2.2.4.67) attribute set to "Success".
The **ResponseCode** ([MS-OXWSCDATA] section 2.2.4.67) element of the
GetAppManifestsResponse element is set to "NoError".

If the **GetAppManifests** WSDL operation is not successful, it returns a **GetAppManifestsResponse** element with the **ResponseClass** attribute set to "Error". The **ResponseCode** element of the **GetAppManifestsResponse** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.24.

3.1.4.2.2 Elements

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

Element	Description
GetAppManifests	The input data for the **GetAppManifests** WSDL operation.
GetAppManifestsResponse	The result data for the **GetAppManifests** WSDL operation.

3.1.4.2.2.1   GetAppManifests

The **GetAppManifests** element specifies the input data for the **GetAppManifests** WSDL operation.

```
<xs:element name="GetAppManifests" type="m:GetAppManifestsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.2.2.2   GetAppManifestsResponse

The **GetAppManifestsResponse** element specifies the result data for the **GetAppManifests** WSDL operation.

```
<xs:element name="GetAppManifestsResponse" type="m:GetAppManifestsResponseType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.2.3 Complex Types

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

Complex type	Description
ArrayOfAppManifestsType	Specifies an array of mail add-in manifest files.
GetAppManifestsResponseType	Specifies the response to a **GetAppManifests** WSDL operation request
GetAppManifestsType	Specifies a request to retrieve mail add-in manifest files.

3.1.4.2.3.1   GetAppManifestsType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetAppManifestsType** complex type specifies a request to retrieve mail add-in manifest files. This type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.17.

```
<xs:complexType name="GetAppManifestsType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
```

```
      <xs:complexContent mixed="false">
        <xs:extension base="m:BaseRequestType"/>
      </xs:complexContent>
    </xs:complexType>
```

3.1.4.2.3.2   GetAppManifestsResponseType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetAppManifestsResponseType** complex type specifies the response to a **GetAppManifests** WSDL operation request. This type extends the **ResponseMessageType**, as specified in [MS-OXWSCDATA] section 2.2.4.67.

```
<xs:complexType name="GetAppManifestsResponseType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element maxOccurs="1" name="Manifests" type="m:ArrayOfAppManifestsType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Manifests: An element of type **ArrayOfAppManifestsType** that represents an array of mail add-in manifest files encoded with **base64 encoding**.

3.1.4.2.3.3   ArrayOfAppManifestsType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **ArrayOfAppManifestsType** complex type specifies an array of mail add-in manifest files.

```
<xs:complexType name="ArrayOfAppManifestsType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="Manifest" type="xs:base64Binary"/>
  </xs:sequence>
</xs:complexType>
```

Manifest: An element of type **base64Binary**, as defined in [XMLSCHEMA2], that represents a mail add-in manifest file encoded with base64 encoding.

3.1.4.2.4 Simple Types

None.

3.1.4.2.5 Attributes

None.

3.1.4.2.6 Groups

None.

3.1.4.2.7 Attribute Groups

None.

3.1.4.3 GetAppMarketplaceUrl

The **GetAppMarketplaceUrl** WSDL operation retrieves the URL of the marketplace landing page for the mail add-in.

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

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

```
<wsdl:operation name="GetAppMarketplaceUrl" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:GetAppMarketplaceUrlSoapIn"/>
  <wsdl:output message="m:GetAppMarketplaceUrlSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification for the **GetAppMarketplaceUrl** WSDL operation.

```
<wsdl:operation name="GetAppMarketplaceUrl" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetAppMarketplaceUrl
" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  <wsdl:input>
    <soap:header message="m:GetAppMarketplaceUrlSoapIn" part="RequestVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:body use="literal" parts="request"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="GetAppMarketplaceUrlResult"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:header message="m:GetAppMarketplaceUrlSoapOut" part="ServerVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:output>
</wsdl:operation>
```

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

3.1.4.3.1 Messages

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

Message	Description
GetAppMarketplaceUrlSoapIn	Specifies a request to retrieve the marketplace URL.
GetAppMarketplaceUrlSoapOut	Specifies the response to the **GetAppMarketPlaceUrlSoapIn** request WSDL message.

3.1.4.3.1.1 GetAppMarketplaceUrlSoapIn

The **GetAppMarketplaceUrlSoapIn** WSDL message specifies a request to retrieve the marketplace URL.

The following is the **GetAppMarketplaceUrlSoapIn** WSDL message specification.

```
<wsdl:message name="GetAppMarketplaceUrlSoapIn"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:GetAppMarketplaceUrl"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **GetAppMarketplaceUrlSoapIn** WSDL message is the input message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/GetAppMarketplaceUrl.

The parts of the **GetAppMarketplaceUrlSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	**GetAppMarketplaceUrl** (section 3.1.4.3.2.1)	Specifies the SOAP body of the request to retrieve the marketplace URL.
RequestVersion	**RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a SOAP header that identifies the schema version for the **GetAppMarketplaceUrl** WSDL operation request.

3.1.4.3.1.2   GetAppMarketplaceUrlSoapOut

The **GetAppMarketplaceUrlSoapOut** WSDL message specifies the response to a **GetAppMarketplaceUrlSoapIn** request WSDL message.

The following is the **GetAppMarketplaceUrlSoapOut** WSDL message specification.

```
<wsdl:message name="GetAppMarketplaceUrlSoapOut"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetAppMarketplaceUrlResult" element="m:GetAppMarketplaceUrlResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **GetAppMarketplaceUrlSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/GetAppMarketplaceUrl.

The parts of the **GetAppMarketplaceUrlSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
GetAppMarketplaceUrlResult	**GetAppMarketplaceUrlResponse** (section 3.1.4.3.2.2)	Specifies the SOAP body of the response.
ServerVersion	**ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the server version for the response.

A successful **GetAppMarketplaceUrl** WSDL operation request returns a **GetAppMarketplaceUrlResponse** element with the **ResponseClass** ([MS-OXWSCDATA] section 2.2.4.67) attribute set to "Success". The **ResponseCode** ([MS-OXWSCDATA] section 2.2.4.67) element of the **GetAppMarketplaceUrlResponse** element is set to "NoError".

If the **GetAppMarketplaceUrl** WSDL operation is not successful, it returns a
GetAppMarketplaceUrlResponse element with the **ResponseClass** attribute set to "Error". The
ResponseCode element of the **GetAppMarketplaceUrlResponse** element is set to one of the
common errors defined in [MS-OXWSCDATA] section 2.2.5.24.

3.1.4.3.2 Elements

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

Element	Description
GetAppMarketplaceUrl	The input data for the **GetAppMarketplaceUrl** WSDL operation.
GetAppMarketplaceUrlResponse	The result data for the **GetAppMarketplaceUrl** WSDL operation.

3.1.4.3.2.1 GetAppMarketplaceUrl

The **GetAppMarketplaceUrl** element specifies the input data for the **GetAppMarketplaceUrl** WSDL
operation.

```
<xs:element name="GetAppMarketplaceUrl" type="m:GetAppMarketplaceUrlType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.3.2.2 GetAppMarketplaceUrlResponse

The **GetAppMarketplaceUrlResponse** element specifies the result data for the
GetAppMarketplaceUrl WSDL operation.

```
<xs:element name="GetAppMarketplaceUrlResponse"
type="m:GetAppMarketplaceUrlResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.3.3 Complex Types

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

Complex type	Description
GetAppMarketplaceUrlResponseMessageType	Specifies the response message for a **GetAppMarketplaceUrl** WSDL operation request.
GetAppMarketplaceUrlType	Specifies a request to retrieve the marketplace URL.

3.1.4.3.3.1 GetAppMarketplaceUrlType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetAppMarketplaceUrlType** complex type specifies a request to retrieve the marketplace URL
for a mail add-in. This type extends the **BaseRequestType** complex type, as specified in [MS-
OXWSCDATA] section 2.2.4.17.

```
<xs:complexType name="GetAppMarketplaceUrlType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType"/>
  </xs:complexContent>
</xs:complexType>
```

3.1.4.3.3.2   GetAppMarketplaceUrlResponseMessageType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetAppMarketplaceUrlResponseMessageType** complex type specifies the response to a **GetAppMarketplaceUrl** WSDL operation request This type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.67.

```
<xs:complexType name="GetAppMarketplaceUrlResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="AppMarketplaceUrl" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

AppMarketplaceUrl: An element of type **string**, as defined in [XMLSCHEMA2], that specifies the URL for the mail add-in.

3.1.4.3.4 Simple Types

None.

3.1.4.3.5 Attributes

None.

3.1.4.3.6 Groups

None.

3.1.4.3.7 Attribute Groups

None.

3.1.4.4 GetClientAccessToken

The **GetClientAccessToken** WSDL operation retrieves a client access token.

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

```
<wsdl:operation name="GetClientAccessToken" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:GetClientAccessTokenSoapIn"/>
  <wsdl:output message="m:GetClientAccessTokenSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **GetClientAccessToken** WSDL operation.

```
<wsdl:operation name="GetClientAccessToken" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetClientAccessToken
" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  <wsdl:input>
    <soap:header message="m:GetClientAccessTokenSoapIn" part="RequestVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:body use="literal" parts="request"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="GetClientAccessTokenResult"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:header message="m:GetClientAccessTokenSoapOut" part="ServerVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:output>
</wsdl:operation>
```

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

3.1.4.4.1 Messages

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

Message	Description
GetClientAccessTokenSoapIn	Specifies a request to retrieve a client access token.
GetClientAccessTokenSoapOut	Specifies the response to a **GetClientAccessTokenSoapIn** request WSDL message.

3.1.4.4.1.1   GetClientAccessTokenSoapIn

The **GetClientAccessTokenSoapIn** WSDL message specifies a request to retrieve a client access token.

The following is the **GetClientAccessTokenSoapIn** WSDL message specification.

```
<wsdl:message name="GetClientAccessTokenSoapIn"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:GetClientAccessToken"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **GetClientAccessTokenSoapIn** WSDL message is the input message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/GetClientAccessToken.

The parts of the **GetClientAccessTokenSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	**GetClientAccessToken** (section 3.1.4.4.2.1)	Specifies the SOAP body of the request to retrieve the client access token.
RequestVersion	**RequestServerVersion**	Specifies a SOAP header that identifies the schema version

Part name	Element/type	Description
	([MS-OXWSCDATA] section 2.2.3.11)	for the **GetClientAccessToken** WSDL operation request.

3.1.4.4.1.2   GetClientAccessTokenSoapOut

The **GetClientAccessTokenSoapOut** WSDL message specifies the response to a **GetClientAccessToken** WSDL operation request.

The following is the **GetClientAccessTokenSoapOut** WSDL message specification.

```
<wsdl:message name="GetClientAccessTokenSoapOut"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetClientAccessTokenResult" element="m:GetClientAccessTokenResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **GetClientAccessTokenSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/GetClientAccessToken.

The parts of the **GetClientAccessTokenSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
GetClientAccessTokenResult	**GetClientAccessTokenResponse** (section 3.1.4.4.2.2)	Specifies the SOAP body of the response that contains the requested information.
ServerVersion	**ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the server version for the response.

A successful **GetClientAccessToken** WSDL operation request returns a **GetClientAccessTokenResponse** element with the **ResponseClass** ([MS-OXWSCDATA] section 2.2.4.67) attribute set to "Success". The **ResponseCode** ([MS-OXWSCDATA] section 2.2.4.67) element of the **GetClientAccessTokenResponse** element is set to "NoError".

If the **GetClientAccessToken** WSDL operation is not successful, it returns a **GetClientAccessTokenResponse** element with the **ResponseClass** attribute set to "Error". The **ResponseCode** element of the **GetClientAccessTokenResponse** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.24.

3.1.4.4.2 Elements

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

Element	Description
GetClientAccessToken	The input data for the **GetClientAccessToken** WSDL operation.
GetClientAccessTokenResponse	The result data for the **GetClientAccessToken** WSDL operation.

3.1.4.4.2.1 GetClientAccessToken

The **GetClientAccessToken** element specifies the input data for the **GetClientAccessToken** WSDL operation.

```
<xs:element name="GetClientAccessToken" type="m:GetClientAccessTokenType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.4.2.2 GetClientAccessTokenResponse

The **GetClientAccessTokenResponse** element specifies the result data for the **GetClientAccessToken** WSDL operation.

```
<xs:element name="GetClientAccessTokenResponse" type="m:GetClientAccessTokenResponseType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.4.3 Complex Types

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

Complex type	Description
ClientAccessTokenRequestType	Identifies the request type for a client access token.
ClientAccessTokenType	Specifies a client access token.
GetClientAccessTokenResponseMessageType	Specifies a response message for a **GetClientAccessToken** WSDL operation request.
GetClientAccessTokenResponseType	Specifies the response to a **GetClientAccessToken** WSDL operation request.
GetClientAccessTokenType	Specifies a request to retrieve a client access token.
NonEmptyArrayOfClientAccessTokenRequestsType	Specifies an array of client access token requests.

3.1.4.4.3.1 GetClientAccessTokenType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetClientAccessTokenType** complex type specifies a request to retrieve a client access token. This type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.17.

```
<xs:complexType name="GetClientAccessTokenType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="TokenRequests"
type="t:NonEmptyArrayOfClientAccessTokenRequestsType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

TokenRequests: An element of type **NonEmptyArrayOfClientAccessTokenRequestsType** that specifies an array of client access token requests.

3.1.4.4.3.2   NonEmptyArrayOfClientAccessTokenRequestsType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **NonEmptyArrayOfClientAccessTokenRequestsType** complex type specifies an array of client access token requests.

```
<xs:complexType name="NonEmptyArrayOfClientAccessTokenRequestsType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" name="TokenRequest"
type="t:ClientAccessTokenRequestType"/>
  </xs:sequence>
</xs:complexType>
```

TokenRequest: An element of type **ClientAccessTokenRequestType** that represents a single token request.

3.1.4.4.3.3   ClientAccessTokenRequestType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **ClientAccessTokenRequestType** complex type identifies the request type for a client access token.

```
<xs:complexType name="ClientAccessTokenRequestType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element name="Id" type="xs:string"/>
    <xs:element name="TokenType" type="t:ClientAccessTokenTypeType"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Scope" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

Id: An element of type **string**, as defined in [XMLSCHEMA2], that contains the identifier of the mail add-in.

TokenType: An element of type **ClientAccessTokenTypeType** that identifies the type of token that will be returned in the response.

Scope: An element of type **string** that specifies the access allowed by the token. <1>

3.1.4.4.3.4   GetClientAccessTokenResponseMessageType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetClientAccessTokenResponseMessageType** complex type specifies a response message for a **GetClientAccessToken** WSDL operation request. This type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.67.

```
<xs:complexType name="GetClientAccessTokenResponseMessageType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">

  <xs:complexContent mixed="false">

    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
```

```
          <xs:element minOccurs="0" name="Token" type="t:ClientAccessTokenType"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
```

Token: An element of type **ClientAccessTokenType** that represents the client access token.

3.1.4.4.3.5   ClientAccessTokenType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **ClientAccessTokenType** complex type specifies a client access token.

```
<xs:complexType name="ClientAccessTokenType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:sequence>
    <xs:element name="Id" type="xs:string"/>
    <xs:element name="TokenType" type="t:ClientAccessTokenTypeType"/>
    <xs:element name="TokenValue" type="xs:string"/>
    <xs:element name="TTL" type="xs:integer"/>
  </xs:sequence>
</xs:complexType>
```

Id: An element of type **string**, as defined in [XMLSCHEMA2], that represents a client access token identifier.

TokenType: An element of type **ClientAccessTokenTypeType** that represents the type of the token.

TokenValue: An element of type **string** that represents the value of the token.

TTL: An element of type **integer**, as defined in [XMLSCHEMA2], that represents the time to live for the token.

3.1.4.4.3.6   GetClientAccessTokenResponseType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **GetClientAccessTokenResponseType** complex type specifies the response to a **GetClientAccesToken** WSDL operation request. This type extends the **BaseResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.18.

```
<xs:complexType name="GetClientAccessTokenResponseType"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseResponseMessageType"/>
  </xs:complexContent>
</xs:complexType>
```

3.1.4.4.4 Simple Types

The following table summarizes the XML schema simple type definitions that are specific to this operation.

Simple type	Description
ClientAccessTokenTypeType	Specifies the type of a client access token.

3.1.4.4.4.1 ClientAccessTokenTypeType

Namespace: http://schemas.microsoft.com/exchange/services/2006/types

The **ClientAccessTokenTypeType** simple type specifies the type of a client access token.

```
<xs:simpleType name="ClientAccessTokenTypeType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:restriction base="xs:string">
    <xs:enumeration value="CallerIdentity"/>
    <xs:enumeration value="ExtensionCallback"/>
    <xs:enumeration value="ScopedToken"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for the **ClientAccessTokenTypeType** simple type.

Value	Meaning
CallerIdentity	Indicates a caller identity client access token.
ExtensionCallback	Indicates an extension callback client access token.
ScopedToken	Indicates a token with limited scope.<2>

3.1.4.4.5 Attributes

None.

3.1.4.4.6 Groups

None.

3.1.4.4.7 Attribute Groups

None.

3.1.4.5 InstallApp

The **InstallApp** WSDL operation installs a mail add-in.

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

```
<wsdl:operation name="InstallApp" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:InstallAppSoapIn"/>
  <wsdl:output message="m:InstallAppSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **InstallApp** WSDL operation.

```
<wsdl:operation name="InstallApp" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/InstallApp"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  <wsdl:input>
```

```
    <soap:header message="m:InstallAppSoapIn" part="RequestVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:body use="literal" parts="request"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="InstallAppResult"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:header message="m:InstallAppSoapOut" part="ServerVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:output>
</wsdl:operation>
```

3.1.4.5.1 Messages

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

Message	Description
InstallAppSoapIn	Specifies a request to install a mail app.
InstallAppSoapOut	Specifies the response to the **InstallAppSoapIn** request WSDL message.

3.1.4.5.1.1   InstallAppSoapIn

The **InstallAppSoapIn** WSDL message specifies a request to install a mail add-in.

The following is the **InstallAppSoapIn** WSDL message specification.

```
<wsdl:message name="InstallAppSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:InstallApp"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **InstallAppSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/InstallApp.

The parts of the **InstallAppSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	**InstallApp** (section 3.1.4.5.2.1)	Specifies the SOAP body of the request to install a mail add-in.
RequestVersion	**RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a SOAP header that identifies the schema version for the **InstallApp** WSDL operation request.

3.1.4.5.1.2   InstallAppSoapOut

The **InstallAppSoapOut** WSDL message specifies the response to the **InstallAppSoapIn** request.

The following is the **InstallAppSoapOut** WSDL message specification.

```
<wsdl:message name="InstallAppSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="InstallAppResult" element="m:InstallAppResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **InstallAppSoapOut** WSDL message is the output message for the SOAP action http://schemas.microsoft.com/exchange/services/2006/messages/InstallApp.

The parts of the **InstallAppSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
InstallAppResult	**InstallAppResponse** (section 3.1.4.5.2.2)	Specifies the SOAP body of the response.
ServerVersion	**ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the server version for the response.

A successful **InstallApp** WSDL operation request returns an **InstallAppResponse** element with the **ResponseClass** ([MS-OXWSCDATA] section 2.2.4.67) attribute set to "Success". The **ResponseCode** ([MS-OXWSCDATA] section 2.2.4.67) element of the **InstallAppResponse** element is set to "NoError".

If the **InstallApp** WSDL operation is not successful, it returns an **InstallAppResponse** element with the **ResponseClass** attribute set to "Error". The **ResponseCode** element of the **InstallAppResponse** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.24.

3.1.4.5.2 Elements

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

Element	Description
InstallApp	The input data for the **InstallApp** WSDL operation.
InstallAppResponse	The result data for the **InstallApp** WSDL operation.

3.1.4.5.2.1   InstallApp

The **InstallApp** element specifies the input data for the **InstallApp** WSDL operation.

```
<xs:element name="InstallApp" type="m:InstallAppType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.5.2.2   InstallAppResponse

The **InstallAppResponse** element specifies the result data for the **InstallApp** WSDL operation.

```
<xs:element name="InstallAppResponse" type="m:InstallAppResponseType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.5.3 Complex Types

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

Complex type	Description
InstallAppResponseType	Specifies the response to an **InstallApp** WSDL operation request.
InstallAppType	Specifies a request to install amail add-in.

3.1.4.5.3.1   InstallAppType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **InstallAppType** complex type specifies a request to install a mail add-in. This type extends the **BaseRequestType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.17.

```
<xs:complexType name="InstallAppType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="Manifest" type="xs:base64Binary"/>
        <xs:element minOccurs="0" maxOccurs="1" name="MarketplaceAssetId" type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="1" name="MarketplaceContentMarket"
type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="1" name="SendWelcomeEmail" type="xs:boolean"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Manifest: An element of type **base64Binary**, as defined in [XMLSCHEMA2], that contains the mail add-in manifest file encoded with base64 encoding.

MarketplaceAssetId: An element of type **string**, as defined in [XMLSCHEMA2], that specifies the asset id of the add-in. <3>

MarketplaceContentMarket: An element of type **string** that specifies the target market for content.<4>

SendWelcomeEmail: An element of type **boolean**, as defined in [XMLSCHEMA2], that specifies whether to send a welcome email for the add-in. <5>

3.1.4.5.3.2   InstallAppResponseType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **InstallAppResponseType** complex type specifies the response to an **InstallApp** WSDL operation request. This type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.67.

```
<xs:complexType name="InstallAppResponseType" xmlns:xs="http://www.w3.org/2001/XMLSchema">

  <xs:complexContent mixed="false">

    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="WasFirstInstall" type="xs:boolean"/>
```

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

WasFirstInstall: An element of type **boolean**, as defined in [XMLSCHEMA2], that specifies whether this is the first time the app is being installed. <6>

3.1.4.5.4 Simple Types

None.

3.1.4.5.5 Attributes

None.

3.1.4.5.6 Groups

None.

3.1.4.5.7 Attribute Groups

None.

3.1.4.6 UninstallApp

The **UninstallApp** WSDL operation uninstalls a mail add-in.

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

```
<wsdl:operation name="UninstallApp" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:input message="m:UninstallAppSoapIn"/>
  <wsdl:output message="m:UninstallAppSoapOut"/>
</wsdl:operation>
```

The following is the WSDL binding specification of the **UninstallApp** WSDL operation.

```
<wsdl:operation name="UninstallApp" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/Uninstall"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  <wsdl:input>
    <soap:header message="m:UninstallAppSoapIn" part="RequestVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:body use="literal" parts="request"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body use="literal" parts="UninstallAppResult"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
    <soap:header message="m:UninstallAppSoapOut" part="ServerVersion" use="literal"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"/>
  </wsdl:output>
</wsdl:operation>
```

The protocol client sends an **UninstallAppSoapIn** request WSDL message and the protocol server responds with an **UninstallAppSoapOut** response WSDL message.

3.1.4.6.1 Messages

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

Message	Description
UninstallAppSoapIn	Specifies a request to uninstall a mail add-in.
UninstallAppSoapOut	Specifies the response to the **UninstallAppSoapIn** request WSDL message.

3.1.4.6.1.1   UninstallAppSoapIn

The **UninstallAppSoapIn** WSDL message specifies a request to uninstall a mail add-in.

The following is the **UninstallAppSoapIn** WSDL message specification.

```
<wsdl:message name="UninstallAppSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="m:UninstallApp"/>
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
```

The **UninstallAppSoapIn** WSDL message is the input message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/UninstallApp.

The parts of the **UninstallAppSoapIn** WSDL message are described in the following table.

Part name	Element/type	Description
request	**UninstallApp** (section 3.1.4.6.2.1)	Specifies the SOAP body of the request to uninstall a mail add-in.
RequestVersion	**RequestServerVersion** ([MS-OXWSCDATA] section 2.2.3.11)	Specifies a SOAP header that identifies the schema version for the **UninstallApp** WSDL operation request.

3.1.4.6.1.2   UninstallAppSoapOut

The **UninstallAppSoapOut** WSDL message specifies the response to the **UninstallAppSoapIn** request WSDL message.

The following is the **UninstallAppSoapOut** WSDL message specification.

```
<wsdl:message name="UninstallAppSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="UninstallAppResult" element="m:UninstallAppResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

The **UninstallAppSoapOut** WSDL message is the output message for the SOAP action
http://schemas.microsoft.com/exchange/services/2006/messages/UninstallApp.

The parts of the **UninstallAppSoapOut** WSDL message are described in the following table.

Part name	Element/type	Description
UninstallAppResult	**UninstallAppResponse** (section 3.1.4.6.2.2)	Represents the result of the operation.
ServerVersion	**ServerVersionInfo** ([MS-OXWSCDATA] section 2.2.3.12)	Specifies a SOAP header that identifies the server version for the response.

A successful **UninstallApp** WSDL operation request returns an **UninstallAppResponse** element with the **ResponseClass** ([MS-OXWSCDATA] section 2.2.4.67) attribute set to "Success". The **ResponseCode** ([MS-OXWSCDATA] section 2.2.4.67) element of the **UninstallAppResponse** element is set to "NoError".

If the **UninstallApp** WSDL operation is not successful, it returns an **UninstallAppResponse** element with the **ResponseClass** attribute set to "Error". The **ResponseCode** element of the **UninstallAppResponse** element is set to one of the common errors defined in [MS-OXWSCDATA] section 2.2.5.24.

3.1.4.6.2 Elements

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

Element	Description
UninstallApp	The input data for the **UninstallApp** WSDL operation.
UninstallAppResponse	The result data for the **UninstallApp** WSDL operation.

3.1.4.6.2.1   UninstallApp

The **UninstallApp** element specifies the input data for the **UninstallApp** WSDL operation.

```
<xs:element name="UninstallApp" type="m:UninstallAppType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.6.2.2   UninstallAppResponse

The **UninstallAppResponse** element specifies the result data for the **UninstallApp** WSDL operation.

```
<xs:element name="UninstallAppResponse" type="m:UninstallAppResponseType"
xmlns:xs="http://www.w3.org/2001/XMLSchema"/>
```

3.1.4.6.3 Complex Types

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

Complex type	Description
UninstallAppResponseType	Specifies the response to an **UninstallApp** WSDL operation request.

Complex type	Description
UninstallAppType	Specifies a request to uninstall a mail add-in.

3.1.4.6.3.1 UninstallAppType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **UninstallAppType** complex type specifies a request to uninstall a mail add-in. This type extends the **BaseRequestType**, as specified in [MS-OXWSCDATA] section 2.2.4.17.

```
<xs:complexType name="UninstallAppType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="ID" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

ID: An element of type **string**, as defined in [XMLSCHEMA2], that specifies the identifier of the mail add-in.

3.1.4.6.3.2 UninstallAppResponseType

Namespace: http://schemas.microsoft.com/exchange/services/2006/messages

The **UninstallAppResponseType** complex type specifies the response to an **UninstallApp** WSDL operation request. This type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.67.

```
<xs:complexType name="UninstallAppResponseType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType"/>
  </xs:complexContent>
</xs:complexType>
```

3.1.4.6.4 Simple Types

None.

3.1.4.6.5 Attributes

None.

3.1.4.6.6 Groups

None.

3.1.4.6.7 Attribute Groups

None.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4   Protocol Examples

4.1   Getting App Manifest Files

This example of the **GetAppManifests** operation, as defined in section 3.1.4.2, shows how a client can retrieve the manifest files for mail add-ins from the server. The client sends the following request.

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
          xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
          xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
     <t:RequestServerVersion Version="Exchange2013" />
     <t:MailboxCulture>en-US</t:MailboxCulture>
     <t:TimeZoneContext>
       <t:TimeZoneDefinition Id="GMT Standard Time"/>
     </t:TimeZoneContext>
  </soap:Header>
  <soap:Body >
     <m:GetAppManifests/>
  </soap:Body>
</soap:Envelope>
```

The server sends the following successful response to the client. The response returns four manifest files. Each file is an **XML** file encoded with base64 encoding. The contents of the files have been abbreviated for readability.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="15"
                         MinorVersion="0"
                         MajorBuildNumber="556"
                         MinorBuildNumber="14"
                         Version="Exchange2013"
            xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
            xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
            xmlns:xsd="http://www.w3.org/2001/XMLSchema"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <GetAppManifestsResponse ResponseClass="Success"
          xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
      <m:Manifests xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
        <Manifest>PE9mZmljZUFwcCB4bWxucz0iaH</Manifest>
        <Manifest>PE9mZmljZUFwcCB4bWxucz0iaH</Manifest>
        <Manifest>PE9mZmljZUFwcCB4bWxucz0iaH</Manifest>
        <Manifest>PE9mZmljZUFwcCB4bWxucz0iaH</Manifest>
      </m:Manifests>
    </GetAppManifestsResponse>
  </s:Body>
</s:Envelope>
```

4.2 Getting a Client Access Token

This example of the **GetClientAccessToken** operation, as defined in section 3.1.4.4, shows how the client retrieves a client access token for a mail add-in specified by the **Id** element of the **TokenRequest** element, as described in section 3.1.4.4.3.3. The ID for the app is in the manifest file.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
               xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
            xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2013" />
  </soap:Header>
  <soap:Body>
    <m:GetClientAccessToken>
      <m:TokenRequests>
         <t:TokenRequest>
           <t:Id>1C50226D-04B5-4AB2-9FCD-42E236B59E4B</t:Id>
           <t:TokenType>CallerIdentity</t:TokenType>
         </t:TokenRequest>
       </m:TokenRequests>
    </m:GetClientAccessToken>
  </soap:Body>
</soap:Envelope>
```

The server sends the following successful response to the client. The token value has been abbreviated for readability.

```xml
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="15"
                         MinorVersion="0"
                         MajorBuildNumber="556"
                         MinorBuildNumber="14"
                         Version="Exchange2013"
           xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
           xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
           xmlns:xsd="http://www.w3.org/2001/XMLSchema"
           xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <m:GetClientAccessTokenResponse
         xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
         xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
      <m:ResponseMessages>
        <m:GetClientAccessTokenResponseMessage ResponseClass="Success">
          <m:ResponseCode>NoError</m:ResponseCode>
          <m:Token>
            <t:Id>1C50226D-04B5-4AB2-9FCD-42E236B59E4B</t:Id>
            <t:TokenType>CallerIdentity</t:TokenType>

<t:TokenValue>eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsIng1dCI6ImJRQnI5a3gwQ3plblFuaTFFDdzJ6NWt1amJ
vYyJ9.</t:TokenValue>
            <t:TTL>479</t:TTL>
          </m:Token>
        </m:GetClientAccessTokenResponseMessage>
      </m:ResponseMessages>
    </m:GetClientAccessTokenResponse>
  </s:Body>
</s:Envelope>
```

4.3 Getting an App Marketplace URL

This example of the **GetAppMarketplaceUrl** operation, as defined in section 3.1.4.3, shows how the client can retrieve the URL of the marketplace landing page for the mail add-in.

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
         xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
         xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2013" />
    <t:MailboxCulture>en-US</t:MailboxCulture>
    <t:TimeZoneContext>
      <t:TimeZoneDefinition Id="GMT Standard Time"/>
    </t:TimeZoneContext>
  </soap:Header>
  <soap:Body >
    <m:GetAppMarketplaceUrl/>
  </soap:Body>
</soap:Envelope>
```

The server sends the following successful response to the client.

```
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="15"
                         MinorVersion="0"
                         MajorBuildNumber="556"
                         MinorBuildNumber="14"
                         Version="Exchange2013"
         xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
         xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
         xmlns:xsd="http://www.w3.org/2001/XMLSchema"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <GetAppMarketplaceUrlResponse ResponseClass="Success"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>

<AppMarketplaceUrl>http://o15.officeredir.microsoft.com/r/rlidMktplcExchRedirect?app=outlook.
exe&amp;ver=15&amp;clid=1033&amp;p1=15d0d556d14&amp;p2=4&amp;p3=0&amp;p4=HP&amp;p5=0&amp;Scop
e=1&amp;CallBackURL=https%3a%2f%2fch1pr03.outlook.com%2fecp%2fExtension%2finstallFromURL.slab
%3fexsvurl%3d1%2526realm%3dmicrosoft.com</AppMarketplaceUrl>
    </GetAppMarketplaceUrlResponse>
  </s:Body>
</s:Envelope>
```

4.4 Installing a Mail App

This example of the **InstallApp** operation, as defined in section 3.1.4.5, shows how the client sends a request to the server to install a mail add-in. The manifest file of the mail add-in has been abbreviated for readability.

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
         xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
         xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2013" />
```

```
        <t:MailboxCulture>en-US</t:MailboxCulture>
        <t:TimeZoneContext>
          <t:TimeZoneDefinition Id="GMT Standard Time"/>
        </t:TimeZoneContext>
      </soap:Header>
      <soap:Body >
        <m:InstallApp>
          <m:Manifest>PE9mZmljZUFwcCB4bWxucz0iaHR0cDovL3NjaG=</m:Manifest>
        </m:InstallApp>
      </soap:Body>
    </soap:Envelope>
```

The server sends the following successful response to the client.

```
    <?xml version="1.0" encoding="utf-8"?>
    <s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
      <s:Header>
        <h:ServerVersionInfo MajorVersion="15"
                             MinorVersion="0"
                             MajorBuildNumber="556"
                             MinorBuildNumber="14"
                             Version="Exchange2013"
                xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
                xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
                xmlns:xsd="http://www.w3.org/2001/XMLSchema"
                xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
      </s:Header>
      <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
             xmlns:xsd="http://www.w3.org/2001/XMLSchema">
        <InstallAppResponse ResponseClass="Success"
            xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
          <ResponseCode>NoError</ResponseCode>
        </InstallAppResponse>
      </s:Body>
    </s:Envelope>
```

4.5   Disabling a Mail App

This example of the **DisableApp** operation, as defined in section 3.1.4.1, shows how the client sends
a request to the server to disable a mail add-in. The ID of the app is in the manifest file.

```
    <?xml version="1.0" encoding="UTF-8"?>
    <soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
                 xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
                 xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
      <soap:Header>
        <t:RequestServerVersion Version="Exchange2013" />
        <t:MailboxCulture>en-US</t:MailboxCulture>
        <t:TimeZoneContext>
          <t:TimeZoneDefinition Id="GMT Standard Time"/>
        </t:TimeZoneContext>
      </soap:Header>
      <soap:Body >
        <m:DisableApp>
          <m:ID>1C50226D-04B5-4AB2-9FCD-42E236B59E4B</m:ID>
          <m:DisableReason>NoReason</m:DisableReason>
        </m:DisableApp>
      </soap:Body>
    </soap:Envelope>
```

The server sends the following successful response to the client.

```xml
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="15"
                         MinorVersion="0"
                         MajorBuildNumber="556"
                         MinorBuildNumber="14"
                         Version="Exchange2013"
             xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
             xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
             xmlns:xsd="http://www.w3.org/2001/XMLSchema"
             xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <DisableAppResponse ResponseClass="Success"
          xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
    </DisableAppResponse>
  </s:Body>
</s:Envelope>
```

4.6   Uninstalling a Mail App

This example of the **UninstallApp** operation, as defined in section 3.1.4.6, shows how the client sends a request to the server to uninstall a mail add-in. The ID of the app is in the manifest file.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
        xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
        xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2013" />
  </soap:Header>
  <soap:Body >
    <m:UninstallApp>
      <m:ID>1C50226D-04B5-4AB2-9FCD-42E236B59E4B</m:ID>
    </m:UninstallApp>
  </soap:Body>
</soap:Envelope>
```

The server sends the following successful response to the client.

```xml
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="15"
                         MinorVersion="0"
                         MajorBuildNumber="556"
                         MinorBuildNumber="14"
                         Version="Exchange2013"
             xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
             xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
             xmlns:xsd="http://www.w3.org/2001/XMLSchema"
             xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <UninstallAppResponse ResponseClass="Success"
          xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
```

```
            </UninstallAppResponse>
        </s:Body>
    </s:Envelope>
```

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 in this appendix.

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xs:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
version="Exchange2016" id="messages" xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:include schemaLocation="MS-OXWSCEXT-messages.xsd"/>
    </xs:schema>
  </wsdl:types>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="DisableApp">
      <wsdl:input message="m:DisableAppSoapIn"/>
      <wsdl:output message="m:DisableAppSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetAppManifests">
      <wsdl:input message="m:GetAppManifestsSoapIn"/>
      <wsdl:output message="m:GetAppManifestsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetAppMarketplaceUrl">
      <wsdl:input message="m:GetAppMarketplaceUrlSoapIn"/>
      <wsdl:output message="m:GetAppMarketplaceUrlSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetClientAccessToken">
      <wsdl:input message="m:GetClientAccessTokenSoapIn"/>
      <wsdl:output message="m:GetClientAccessTokenSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="InstallApp">
      <wsdl:input message="m:InstallAppSoapIn"/>
      <wsdl:output message="m:InstallAppSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="UninstallApp">
      <wsdl:input message="m:UninstallAppSoapIn"/>
      <wsdl:output message="m:UninstallAppSoapOut"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="ExchangeServiceBinding" type="m:ExchangeServicePortType">
    <wsdl:documentation>
      <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://ws-
i.org/schemas/conformanceClaim/"/>
    </wsdl:documentation>
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="DisableApp">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DisableApp"/>
      <wsdl:input>
        <soap:header message="m:DisableAppSoapIn" part="RequestVersion" use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="DisableAppResult"/>
        <soap:header message="m:DisableAppSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetClientAccessToken">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetClientAccessToken
"/>
      <wsdl:input>
```

```
        <soap:header message="m:GetClientAccessTokenSoapIn" part="RequestVersion"
use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="GetClientAccessTokenResult"/>
        <soap:header message="m:GetClientAccessTokenSoapOut" part="ServerVersion"
use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAppManifests">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetAppManifests"/>
      <wsdl:input>
        <soap:header message="m:GetAppManifestsSoapIn" part="RequestVersion" use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="GetAppManifestsResult"/>
        <soap:header message="m:GetAppManifestsSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAppMarketplaceUrl">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetAppMarketplaceUrl
"/>
      <wsdl:input>
        <soap:header message="m:GetAppMarketplaceUrlSoapIn" part="RequestVersion"
use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="GetAppMarketplaceUrlResult"/>
        <soap:header message="m:GetAppMarketplaceUrlSoapOut" part="ServerVersion"
use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="InstallApp">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/InstallApp"/>
      <wsdl:input>
        <soap:header message="m:InstallAppSoapIn" part="RequestVersion" use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="InstallAppResult"/>
        <soap:header message="m:InstallAppSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UninstallApp">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/Uninstall"/>
      <wsdl:input>
        <soap:header message="m:UninstallAppSoapIn" part="RequestVersion" use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="UninstallAppResult"/>
        <soap:header message="m:UninstallAppSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:message name="DisableAppSoapIn">
    <wsdl:part name="request" element="m:DisableApp"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
  </wsdl:message>
  <wsdl:message name="DisableAppSoapOut">
    <wsdl:part name="DisableAppResult" element="m:DisableAppResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
```

```
    </wsdl:message>
    <wsdl:message name="GetAppManifestsSoapIn">
      <wsdl:part name="request" element="m:GetAppManifests"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="GetAppManifestsSoapOut">
      <wsdl:part name="GetAppManifestsResult" element="m:GetAppManifestsResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:message name="GetAppMarketplaceUrlSoapIn">
      <wsdl:part name="request" element="m:GetAppMarketplaceUrl"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="GetAppMarketplaceUrlSoapOut">
      <wsdl:part name="GetAppMarketplaceUrlResult" element="m:GetAppMarketplaceUrlResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:message name="GetClientAccessTokenSoapIn">
      <wsdl:part name="request" element="m:GetClientAccessToken"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="GetClientAccessTokenSoapOut">
      <wsdl:part name="GetClientAccessTokenResult" element="m:GetClientAccessTokenResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:message name="InstallAppSoapIn">
      <wsdl:part name="request" element="m:InstallApp"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="InstallAppSoapOut">
      <wsdl:part name="InstallAppResult" element="m:InstallAppResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
    <wsdl:message name="UninstallAppSoapIn">
      <wsdl:part name="request" element="m:UninstallApp"/>
      <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wsdl:message>
    <wsdl:message name="UninstallAppSoapOut">
      <wsdl:part name="UninstallAppResult" element="m:UninstallAppResponse"/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
  </wsdl:definitions>
```

7   Appendix B: Full XML Schema

Schema name	Prefix	Section
http://schemas.microsoft.com/exchange/services/2006/messages	m	7.1
http://schemas.microsoft.com/exchange/services/2006/types	t	7.2

For ease of implementation, the following sections provide the full XML schema for this protocol.

7.1   http://schemas.microsoft.com/exchange/services/2006/messages Schema

This section contains the contents of the MS-OXWSCEXT-messages.xsd file and information about additional files that this schema file requires to operate correctly.

MS-OXWSCEXT-messages.xsd includes the files listed in the following table. For the schema file to operate correctly, these files have to be in the folder that contains the WSDL, types schema, and messages schema files for this protocol.

File name	Defining specification
MS-OXWSCDATA-messages.xsd	[MS-OXWSCDATA] section 7.1
MS-OXWSCEXT-types.xsd	section 7.2

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
version="Exchange2016" id="messages" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
  <xs:include schemaLocation="MS-OXWSCEXT-messages.xsd"/>
  <xs:import schemaLocation="MS-OXWSCEXT-types.xsd"
namespace="http://schemas.microsoft.com/exchange/services/2006/types"/>
  <xs:complexType name="ArrayOfAppManifestsType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="Manifest"
type="xs:base64Binary"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="GetClientAccessToken" type="m:GetClientAccessTokenType"/>
  <xs:complexType name="GetClientAccessTokenResponseMessageType">
    <xs:complexContent mixed="false">
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element minOccurs="0" name="Token" type="t:ClientAccessTokenType"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="GetClientAccessTokenResponseType">
    <xs:complexContent mixed="false">
      <xs:extension base="m:BaseResponseMessageType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetClientAccessTokenResponse" type="m:GetClientAccessTokenResponseType"/>
  <xs:complexType name="GetClientAccessTokenType">
    <xs:complexContent mixed="false">
```

```
        <xs:extension base="m:BaseRequestType">
          <xs:sequence>
            <xs:element minOccurs="1" maxOccurs="1" name="TokenRequests"
  type="t:NonEmptyArrayOfClientAccessTokenRequestsType"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="GetAppManifestsResponse" type="m:GetAppManifestsResponseType"/>
    <xs:complexType name="GetAppManifestsResponseType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:ResponseMessageType">
          <xs:sequence>
            <xs:element maxOccurs="1" name="Manifests" type="m:ArrayOfAppManifestsType"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="GetAppManifests" type="m:GetAppManifestsType"/>
    <xs:complexType name="GetAppManifestsType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:BaseRequestType"/>
      </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="GetAppMarketplaceUrlType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:BaseRequestType"/>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="GetAppMarketplaceUrl" type="m:GetAppMarketplaceUrlType"/>
    <xs:element name="GetAppMarketplaceUrlResponse"
  type="m:GetAppMarketplaceUrlResponseMessageType"/>
    <xs:complexType name="GetAppMarketplaceUrlResponseMessageType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:ResponseMessageType">
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="AppMarketplaceUrl" type="xs:string"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:complexType name="InstallAppType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:BaseRequestType">
          <xs:sequence>
            <xs:element minOccurs="1" maxOccurs="1" name="Manifest" type="xs:base64Binary"/>
            <xs:element minOccurs="0" maxOccurs="1" name="MarketplaceAssetId"
  type="xs:string"/>
            <xs:element minOccurs="0" maxOccurs="1" name="MarketplaceContentMarket"
  type="xs:string"/>
            <xs:element minOccurs="0" maxOccurs="1" name="SendWelcomeEmail" type="xs:boolean"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="InstallApp" type="m:InstallAppType"/>
    <xs:complexType name="InstallAppResponseType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:ResponseMessageType">
          <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="1" name="WasFirstInstall" type="xs:boolean"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="InstallAppResponse" type="m:InstallAppResponseType"/>
    <xs:complexType name="UninstallAppType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:BaseRequestType">
```

```
          <xs:sequence>
            <xs:element minOccurs="1" maxOccurs="1" name="ID" type="xs:string"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="UninstallApp" type="m:UninstallAppType"/>
    <xs:complexType name="UninstallAppResponseType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:ResponseMessageType"/>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="UninstallAppResponse" type="m:UninstallAppResponseType"/>
    <xs:complexType name="DisableAppType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:BaseRequestType">
          <xs:sequence>
            <xs:element minOccurs="1" maxOccurs="1" name="ID" type="xs:string"/>
            <xs:element minOccurs="1" maxOccurs="1" name="DisableReason"
  type="t:DisableReasonType"/>
          </xs:sequence>
        </xs:extension>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="DisableApp" type="m:DisableAppType"/>
    <xs:complexType name="DisableAppResponseType">
      <xs:complexContent mixed="false">
        <xs:extension base="m:ResponseMessageType"/>
      </xs:complexContent>
    </xs:complexType>
    <xs:element name="DisableAppResponse" type="m:DisableAppResponseType"/>
</xs:schema>
```

7.2   http://schemas.microsoft.com/exchange/services/2006/types Schema

This section contains the contents of the MS-OXWSCEXT-types.xsd file.

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
version="Exchange2016" id="types" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
  <xs:complexType name="ClientAccessTokenRequestType">
    <xs:sequence>
      <xs:element name="Id" type="xs:string"/>
      <xs:element name="TokenType" type="t:ClientAccessTokenTypeType"/>
      <xs:element minOccurs="0" maxOccurs="1" name="Scope" type="xs:string"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ClientAccessTokenType">
    <xs:sequence>
      <xs:element name="Id" type="xs:string"/>
      <xs:element name="TokenType" type="t:ClientAccessTokenTypeType"/>
      <xs:element name="TokenValue" type="xs:string"/>
      <xs:element name="TTL" type="xs:integer"/>
    </xs:sequence>
  </xs:complexType>
  <xs:simpleType name="ClientAccessTokenTypeType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="CallerIdentity"/>
      <xs:enumeration value="ExtensionCallback"/>
      <xs:enumeration value="ScopedToken"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="DisableReasonType">
```

```
      <xs:restriction base="xs:string">
        <xs:enumeration value="NoReason"/>
        <xs:enumeration value="OutlookClientPerformance"/>
        <xs:enumeration value="OWAClientPerformance"/>
        <xs:enumeration value="MobileClientPerformance"/>
      </xs:restriction>
  </xs:simpleType>
  <xs:complexType name="NonEmptyArrayOfClientAccessTokenRequestsType">
    <xs:sequence>
      <xs:element maxOccurs="unbounded" name="TokenRequest"
type="t:ClientAccessTokenRequestType"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

8   Appendix C: Product Behavior

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

- Microsoft Exchange Server 2013

- Microsoft Exchange Server 2016

- Microsoft Outlook 2013

- Microsoft Outlook 2016

Exceptions, if any, are noted below. If a service pack or Quick Fix Engineering (QFE) number appears with the product version, behavior changed in that service pack or QFE. The new behavior also applies to subsequent service packs of the product unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms SHOULD or SHOULD NOT implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term MAY implies that the product does not follow the prescription.

<1> Section 3.1.4.4.3.3: Exchange 2013 and Outlook 2013 do not support the **Scope** element.

<2> Section 3.1.4.4.4.1: Exchange 2013 and Outlook 2013 do not support the **ScopedToken** value.

<3> Section 3.1.4.5.3.1: Exchange 2013 and Outlook 2013 do not support the **MarketplaceAssetId** element.

<4> Section 3.1.4.5.3.1: Exchange 2013 and Outlook 2013 do not support the **MarketplaceContentMarket** element.

<5> Section 3.1.4.5.3.1: Exchange 2013 and Outlook 2013 do not support the **SendWelcomeEmail** element.

<6> Section 3.1.4.5.3.2: Exchange 2013 and Outlook 2013 do not support the **WasFirstInstall** element.

9 Change Tracking

This section identifies changes that were made to this document since the last release. Changes are classified as New, Major, Minor, Editorial, or No change.

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

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

- A document revision that incorporates changes to interoperability requirements or functionality.

- The removal of a document from the documentation set.

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

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

The revision class **No change** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the technical content of the document is identical to the last released version.

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

- New content added.

- Content updated.

- Content removed.

- New product behavior note added.

- Product behavior note updated.

- Product behavior note removed.

- New protocol syntax added.

- Protocol syntax updated.

- Protocol syntax removed.

- New content added due to protocol revision.

- Content updated due to protocol revision.

- Content removed due to protocol revision.

- New protocol syntax added due to protocol revision.

- Protocol syntax updated due to protocol revision.

- Protocol syntax removed due to protocol revision.

- Obsolete document removed.

Editorial changes are always classified with the change type **Editorially updated**.

Some important terms used in the change type descriptions are defined as follows:

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.

- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

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

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
3.1.4.4.3.3 ClientAccessTokenRequestType	Added new element Scope.	Y	New content added.
3.1.4.4.3.3 ClientAccessTokenRequestType	Specified that Exchange 2013 and Outlook 2013 do not support the Scope element.	Y	New product behavior note added.
3.1.4.4.4.1 ClientAccessTokenTypeType	Added new value ScopedToken.	Y	New content added.
3.1.4.4.4.1 ClientAccessTokenTypeType	Specified that Exchange 2013 and Outlook 2013 do not support the ScopedToken value.	Y	New product behavior note added.
3.1.4.5.3.1 InstallAppType	Added new elements MarketplaceAssetId, MarketplaceContentMarket, and SendWelcomeEmail.	Y	New content added.
3.1.4.5.3.1 InstallAppType	Specified that Exchange 2013 and Outlook 2013 do not support the MarketplaceAssetId, MarketplaceContentMarket, and SendWelcomeEmail elements.	Y	New product behavior note added.
3.1.4.5.3.2 InstallAppResponseType	Added new element WasFirstInstall.	Y	New content added.
3.1.4.5.3.2 InstallAppResponseType	Specified that Exchange 2013 and Outlook 2013 do not support the WasFirstInstall element.	Y	New product behavior note added.

10 Index