[MS-OXWSCEXT]:
Client Extension Web Service Protocol

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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.

- **Representational State Transfer (REST)**: A class of web services that is used to transfer domain-specific data by using HTTP, without additional messaging layers or session tracking, and returns textual data, such as XML.

- **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.


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

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[XMLSCHEMA1/2] and [XMLSCHEMA2/2], 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.

![Layering Diagram](image)

**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-OXWSDATA] section 2.2.3.9, identifies the WSDL port type version of the request. The ServerVersionInfo element, as described in [MS-OXWSDATA] section 2.2.3.10, 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 [XMLSCHEMA1/2] and [XMLSCHEMA2/2], 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.

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<th>Reference</th>
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<tr>
<td></td>
<td></td>
<td>[XMLSCHEMA2/2]</td>
</tr>
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</table>

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.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Description</th>
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<tr>
<td>DisableApp</td>
<td>The <strong>DisableApp WSDL operation</strong> disables a mail add-in.</td>
</tr>
<tr>
<td>GetAppManifests</td>
<td>The <strong>GetAppManifests</strong> WSDL operation retrieves the manifest files for a mail add-in.</td>
</tr>
<tr>
<td>GetAppMarketplaceUrl</td>
<td>The <strong>GetAppMarketplaceUrl</strong> WSDL operation retrieves the <strong>URL</strong> of the marketplace landing page for the mail add-in.</td>
</tr>
<tr>
<td>GetClientAccessToken</td>
<td>The <strong>GetClientAccessToken</strong> WSDL operation retrieves a client access token.</td>
</tr>
<tr>
<td>InstallApp</td>
<td>The <strong>InstallApp</strong> WSDL operation installs a mail add-in.</td>
</tr>
<tr>
<td>UninstallApp</td>
<td>The <strong>UninstallApp</strong> WSDL operation uninstalls a mail add-in.</td>
</tr>
</tbody>
</table>

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.

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

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

```xml
<wsdl:operation name="DisableApp" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
      xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
    <wsdl:input>
      <soap:header message="tns: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/">
      </soap:input>
    <wsdl:output>
      <soap:body use="literal" parts="DisableAppResult"
        xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
        <soap:header message="tns:DisableAppSoapOut" part="ServerVersion" use="literal"
          xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
      </soap: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.

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisableAppSoapIn</td>
<td>Specifies a request to disable a mail add-in.</td>
</tr>
<tr>
<td>DisableAppSoapOut</td>
<td>Specifies the response to the DisableAppSoapIn request <strong>WSDL</strong> message.</td>
</tr>
</tbody>
</table>

#### 3.1.4.1.1 DisableAppSoapIn

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

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

```xml
<wsdl:message name="DisableAppSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="tns: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.
### 3.1.4.1.2 DisableAppSoapOut

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

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

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


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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisableAppResult</td>
<td>DisableAppResponse (section 3.1.4.1.2.2)</td>
<td>Specifies the <strong>SOAP body</strong> of the response.</td>
</tr>
<tr>
<td>ServerVersion</td>
<td>ServerVersionInfo (MS-OXWSCDATA section 2.2.3.10)</td>
<td>Specifies a <strong>SOAP header</strong> that identifies the server version for the response.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisableApp</td>
<td>The input data for the <strong>DisableApp WSDL operation</strong>.</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DisableAppResponse</td>
<td>The result data for the <strong>DisableApp</strong> WSDL operation.</td>
</tr>
</tbody>
</table>

### 3.1.4.1.2.1 DisableApp

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

```xml
<xs:element name="DisableApp" type="tns: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.

```xml
<xs:element name="DisableAppResponse" type="tns: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.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisableAppResponseType</td>
<td>Specifies the response to a <strong>DisableApp</strong> WSDL operation request.</td>
</tr>
<tr>
<td>DisableAppType</td>
<td>Specifies a request to disable a <strong>mail add-in</strong>.</td>
</tr>
</tbody>
</table>

### 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-OXWSDATA] section 2.2.4.17.

```xml
<xs:complexType name="DisableAppType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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 [XMLSCHEMA2/2], 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.

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

<table>
<thead>
<tr>
<th>Simple type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisableReasonType</td>
<td>Indicates the reason the mail add-in is being disabled.</td>
</tr>
</tbody>
</table>

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.

```xml
<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.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>NoReason</td>
<td>No reason specified.</td>
</tr>
<tr>
<td>OutlookClientPerformance</td>
<td>The mail add-in is being disabled from the messaging client due to performance.</td>
</tr>
<tr>
<td>OWAClientPerformance</td>
<td>The mail add-in is being disabled from the web client due to performance.</td>
</tr>
<tr>
<td>MobileClientPerformance</td>
<td>The mail add-in is being disabled from the mobile client due to performance.</td>
</tr>
</tbody>
</table>

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.

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

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

```xml
  <wsdl:input>
    <soap:header message="tns: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/"/>
  </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.

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetAppManifestsSoapIn</td>
<td>Specifies a request to retrieve mail add-in manifest files.</td>
</tr>
<tr>
<td>GetAppManifestsSoapOut</td>
<td>Specifies the response to the GetAppManifestsSoapIn request WSDL message.</td>
</tr>
</tbody>
</table>

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.
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.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>request</td>
<td>GetAppManifests</td>
<td>Specifies the SOAP body of the request to retrieve manifest files.</td>
</tr>
<tr>
<td>RequestVersion</td>
<td>RequestServerVersion</td>
<td>Specifies a SOAP header that identifies the schema version for the GetAppManifests WSDL operation request.</td>
</tr>
</tbody>
</table>

### 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.

```xml
<wsl:message name="GetAppManifestsSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    <wsdl:part name="GetAppManifestsResult" element="tns:_GetAppManifestsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```


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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetAppManifestsResult</td>
<td>GetAppManifestsResponse</td>
<td>Specifies the SOAP body of the response.</td>
</tr>
<tr>
<td>ServerVersion</td>
<td>ServerVersionInfo</td>
<td>Specifies a SOAP header that identifies the server version for the response.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetAppManifests</td>
<td>The input data for the GetAppManifests WSDL operation.</td>
</tr>
<tr>
<td>GetAppManifestsResponse</td>
<td>The result data for the GetAppManifests WSDL operation.</td>
</tr>
</tbody>
</table>

3.1.4.2.2.1 GetAppManifests

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

```xml
<xs:element name="GetAppManifests" type="tns: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.

```xml
<xs:element name="GetAppManifestsResponse" type="tns: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.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ArrayOfAppManifestsType</td>
<td>Specifies an array of mail add-in manifest files.</td>
</tr>
<tr>
<td>GetAppManifestsResponseType</td>
<td>Specifies the response to a GetAppManifests WSDL operation request</td>
</tr>
<tr>
<td>GetAppManifestsType</td>
<td>Specifies a request to retrieve mail add-in manifest files.</td>
</tr>
</tbody>
</table>

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.

```xml
<xs:complexType name="GetAppManifestsType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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.

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.

Manifest: An element of type base64Binary, as defined in [XMLSCHEMA2/2], 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.

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

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

```xml
<wsdl:operation name="GetAppMarketplaceUrl" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
    <wsdl:input>
      <soap:header message="tns: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/">
      </soap:input>
      <wsdl:output>
        <soap:body use="literal" parts="GetAppMarketplaceUrlResult" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
            <soap:body use="literal" parts="GetAppMarketplaceUrlSoapOut" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
        </soap:output>
    </soap: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.

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetAppMarketplaceUrlSoapIn</td>
<td>Specifies a request to retrieve the marketplace URL.</td>
</tr>
<tr>
<td>GetAppMarketplaceUrlSoapOut</td>
<td>Specifies the response to the GetAppMarketplaceUrlSoapIn request WSDL message.</td>
</tr>
</tbody>
</table>

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.

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

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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>request</td>
<td>GetAppMarketplaceUrl</td>
<td>Specifies the SOAP body of the request to retrieve the marketplace URL.</td>
</tr>
<tr>
<td>RequestVersion</td>
<td>RequestServerVersion</td>
<td>Specifies a SOAP header that identifies the schema version for the GetAppMarketplaceUrl WSDL operation request.</td>
</tr>
</tbody>
</table>

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.

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


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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetAppMarketplaceUrlResult</td>
<td>GetAppMarketplaceUrlResponse (section 3.1.4.3.2.2)</td>
<td>Specifies the SOAP body of the response.</td>
</tr>
<tr>
<td>ServerVersion</td>
<td>ServerVersionInfo</td>
<td>Specifies a SOAP header that identifies the server version for the response.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetAppMarketplaceUrl</td>
<td>The input data for the GetAppMarketplaceUrl WSDL operation.</td>
</tr>
<tr>
<td>GetAppMarketplaceUrlResponse</td>
<td>The result data for the GetAppMarketplaceUrl WSDL operation.</td>
</tr>
</tbody>
</table>

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

```xml
<xs:element name="GetAppMarketplaceUrl" type="tns: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.

```xml
<xs:element name="GetAppMarketplaceUrlResponse"
type="tns: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.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetAppMarketplaceUrlResponseMessageType</td>
<td>Specifies the response message for a GetAppMarketplaceUrl WSDL operation request.</td>
</tr>
<tr>
<td>GetAppMarketplaceUrlType</td>
<td>Specifies a request to retrieve the marketplace URL.</td>
</tr>
</tbody>
</table>

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.

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

```xml
<xs:complexType name="GetAppMarketplaceUrlResponseMessageType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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 [XMLSCHEMA2/2], 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.

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

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

```xml
<wsdl:operation name="GetClientAccessToken" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
```
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.

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetClientAccessTokenSoapIn</td>
<td>Specifies a request to retrieve a client access token.</td>
</tr>
<tr>
<td>GetClientAccessTokenSoapOut</td>
<td>Specifies the response to a <code>GetClientAccessTokenSoapIn</code> request WSDL message.</td>
</tr>
</tbody>
</table>

#### 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.

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


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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>request</code></td>
<td><code>GetClientAccessToken</code></td>
<td>Specifies the SOAP body of the request to retrieve the client access token.</td>
</tr>
<tr>
<td></td>
<td><em>(section 3.1.4.4.2.1)</em></td>
<td></td>
</tr>
<tr>
<td><code>RequestVersion</code></td>
<td><code>RequestServerVersion</code></td>
<td>Specifies a SOAP header that identifies the schema version for the <code>GetClientAccessToken</code> WSDL operation request.</td>
</tr>
<tr>
<td></td>
<td><em>(MS-OXWSCEXT [MS-OXWSCEXT] - v20190319)</em></td>
<td></td>
</tr>
</tbody>
</table>
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.

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


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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetClientAccessTokenResult</td>
<td>GetClientAccessTokenResponse (section 3.1.4.4.2.2)</td>
<td>Specifies the SOAP body of the response that contains the requested information.</td>
</tr>
<tr>
<td>ServerVersion</td>
<td>ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10)</td>
<td>Specifies a SOAP header that identifies the server version for the response.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetClientAccessToken</td>
<td>The input data for the GetClientAccessToken WSDL operation.</td>
</tr>
<tr>
<td>GetClientAccessTokenResponse</td>
<td>The result data for the GetClientAccessToken WSDL operation.</td>
</tr>
</tbody>
</table>
3.1.4.4.2.1 GetClientAccessToken

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

```xml
<xs:element name="GetClientAccessToken" type="tns: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.

```xml
<xs:element name="GetClientAccessTokenResponse" type="tns: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.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientAccessTokenRequestType</td>
<td>Identifies the request type for a client access token.</td>
</tr>
<tr>
<td>ClientAccessTokenType</td>
<td>Specifies a client access token.</td>
</tr>
<tr>
<td>GetClientAccessTokenResponseMessageType</td>
<td>Specifies a response message for a GetClientAccessToken WSDL operation request.</td>
</tr>
<tr>
<td>GetClientAccessTokenResponseType</td>
<td>Specifies the response to a GetClientAccessToken WSDL operation request.</td>
</tr>
<tr>
<td>GetClientAccessTokenType</td>
<td>Specifies a request to retrieve a client access token.</td>
</tr>
<tr>
<td>NonEmptyArrayOfClientAccessTokenRequestsType</td>
<td>Specifies an array of client access token requests.</td>
</tr>
</tbody>
</table>

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.

```xml
<xs:complexType name="GetClientAccessTokenType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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.

```xml
<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.

```xml
<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 [XMLSCHEMA2/2], 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.
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 [XMLSCHEMA2/2], 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 [XMLSCHEMA2/2], 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 GetClientAccessToken WSDL operation request. This type extends the BaseResponseMessageType complex type, as specified in [MS-OXWSDATA] section 2.2.4.18.

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

### 3.1.4.4 Simple Types

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

```xml
<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:enumeration value="ExtensionRestApiCallback"/>
  </xs:restriction>
</xs:simpleType>
```

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

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CallerIdentity</td>
<td>Indicates a caller identity client access token.</td>
</tr>
<tr>
<td>ExtensionCallback</td>
<td>Indicates an extension callback client access token.</td>
</tr>
<tr>
<td>ScopedToken</td>
<td>Indicates a token with limited scope.</td>
</tr>
<tr>
<td>ExtensionRestApiCallback</td>
<td>Indicates an extension REST API callback client access token.</td>
</tr>
</tbody>
</table>

### 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.

```xml
<wsdl:operation name="InstallApp" xmlns:wsdl="http://schemas.xmlsoap.org/wsd1/"
  xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/installapp">
  <wsdl:input message="tns:InstallAppSoapIn"/>
  <wsdl:output message="tns:InstallAppSoapOut"/>
</wsdl:operation>
```
The following is the WSDL binding specification of the **InstallApp** WSDL operation.

```xml
<wSDL:operation name="InstallApp" xmlns:wSDL="http://schemas.xmlsoap.org/wsdI/">
  <soap:operation
      soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/InstallApp"
      xmlns:soap="http://schemas.xmlsoap.org/wsdI/">
    <wSDL:input>
      <soap:header message="tns:InstallAppSoapIn" part="RequestVersion" use="literal"
        xmlns:soap="http://schemas.xmlsoap.org/wsdI/">
      </soap:header>
      <soap:body use="literal" parts="request"
        xmlns:soap="http://schemas.xmlsoap.org/wsdI/">
      </soap:body>
    </wSDL:input>
    <wSDL:output>
      <soap:body use="literal" parts="InstallAppResult"
        xmlns:soap="http://schemas.xmlsoap.org/wsdI/">
      </soap:body>
      <soap:header message="tns:InstallAppSoapOut" part="ServerVersion" use="literal"
        xmlns:soap="http://schemas.xmlsoap.org/wsdI/">
      </soap:header>
    </wSDL:output>
  </soap:operation>
</wSDL:operation>
```

### 3.1.4.5.1 Messages

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

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstallAppSoapIn</td>
<td>Specifies a request to install a mail add-in.</td>
</tr>
<tr>
<td>InstallAppSoapOut</td>
<td>Specifies the response to the <strong>InstallAppSoapIn</strong> request WSDL message.</td>
</tr>
</tbody>
</table>

#### 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.

```xml
<wSDL:message name="InstallAppSoapIn" xmlns:wSDL="http://schemas.xmlsoap.org/wsdI/">
  <wSDL:part name="request" element="tns: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.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>request</td>
<td><strong>InstallApp</strong></td>
<td>Specifies the <strong>SOAP body</strong> of the request to install a mail add-in.</td>
</tr>
<tr>
<td>RequestVersion</td>
<td><strong>RequestServerVersion</strong> ([MS-OXWSCTYPE] section 2.2.3.9)</td>
<td>Specifies a <strong>SOAP header</strong> that identifies the schema version for the <strong>InstallApp WSDL operation</strong> request.</td>
</tr>
</tbody>
</table>
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.

```xml
<wsdl:message name="InstallAppSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="InstallAppResult" element="tns: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.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstallAppResult</td>
<td>InstallAppResponse</td>
<td>Specifies the SOAP body of the response.</td>
</tr>
<tr>
<td></td>
<td>(section 3.1.4.5.2.2)</td>
<td></td>
</tr>
<tr>
<td>ServerVersion</td>
<td>ServerVersionInfo</td>
<td>Specifies a SOAP header that identifies the server version for the response.</td>
</tr>
<tr>
<td></td>
<td>(MS-OXWSCDATA section 2.2.3.10)</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstallApp</td>
<td>The input data for the InstallApp WSDL operation.</td>
</tr>
<tr>
<td>InstallAppResponse</td>
<td>The result data for the InstallApp WSDL operation.</td>
</tr>
</tbody>
</table>

3.1.4.5.2.1 InstallApp

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

```xml
<xs:element name="InstallApp" type="tns: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.

```xml
<xs:element name="InstallAppResponse" type="tns: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.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InstallAppResponseType</td>
<td>Specifies the response to an InstallApp WSDL operation request.</td>
</tr>
<tr>
<td>InstallAppType</td>
<td>Specifies a request to install a mail add-in.</td>
</tr>
</tbody>
</table>

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.

```xml
<xs:complexType name="InstallAppType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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 [XMLSCHEMA2/2], that contains the mail add-in manifest file encoded with base64 encoding.

**MarketplaceAssetId:** An element of type string, as defined in [XMLSCHEMA2/2], 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 [XMLSCHEMA2/2], 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.

```xml
<xs:complexType name="InstallAppResponseType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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 [XMLSCHEMA2/2], 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.

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

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

```xml
<soap:operation name="UninstallApp" xmlns:soap="http://schemas.xmlsoap.org/soap/">
    <soap:header message="tns:UninstallAppSoapIn" part="RequestVersion" use="literal" xmlns:soap="http://schemas.xmlsoap.org/soap/"/>
    <soap:body use="literal" parts="request" xmlns:soap="http://schemas.xmlsoap.org/soap/"/>
  </soap:input>
  <soap:output>
    <soap:body use="literal" parts="UninstallAppResult" xmlns:soap="http://schemas.xmlsoap.org/soap/"/>
  </soap:output>
</soap: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.

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UninstallAppSoapIn</td>
<td>Specifies a request to uninstall a <strong>mail add-in</strong>.</td>
</tr>
<tr>
<td>UninstallAppSoapOut</td>
<td>Specifies the response to the <strong>UninstallAppSoapIn</strong> request <strong>WSDL message</strong>.</td>
</tr>
</tbody>
</table>

#### 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.

```xml
<wsdl:message name="UninstallAppSoapIn" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="request" element="tns: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.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>request</td>
<td><strong>UninstallApp</strong> (section 3.1.4.6.2.1)</td>
<td>Specifies the <strong>SOAP body</strong> of the request to uninstall a mail add-in.</td>
</tr>
<tr>
<td>RequestVersion</td>
<td><strong>RequestServerVersion</strong> ([MS-OXWSCDATA] section 2.2.3.9)</td>
<td>Specifies a <strong>SOAP header</strong> that identifies the schema version for the <strong>UninstallApp WSDL operation</strong> request.</td>
</tr>
</tbody>
</table>

#### 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.

```xml
<wsdl:message name="UninstallAppSoapOut" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="UninstallAppResult" element="tns:UninstallAppResponse"/>
</wsdl:message>
```
The **UninstallAppSoapOut** WSDL message is the output message for the **SOAP action**

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

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element_type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UninstallAppResult</td>
<td>UninstallAppResponse (section 3.1.4.6.2.2)</td>
<td>Represents the result of the operation.</td>
</tr>
<tr>
<td>ServerVersion</td>
<td>ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10)</td>
<td>Specifies a <strong>SOAP header</strong> that identifies the server version for the response.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UninstallApp</td>
<td>The input data for the <strong>UninstallApp WSDL operation</strong>.</td>
</tr>
<tr>
<td>UninstallAppResponse</td>
<td>The result data for the <strong>UninstallApp WSDL operation</strong>.</td>
</tr>
</tbody>
</table>

#### 3.1.4.6.2.1 UninstallApp

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

```xml
<xs:element name="UninstallApp" type="tns: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**.
### 3.1.4.6.3 Complex Types

The following table summarizes the [XML schema](http://www.w3.org/2001/XMLSchema) complex type definitions that are specific to this operation.

<table>
<thead>
<tr>
<th>Complex type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UninstallAppResponseType</td>
<td>Specifies the response to an <a href="http://schemas.microsoft.com/exchange/services/2006/messages">UninstallApp</a> WSDL operation request.</td>
</tr>
<tr>
<td>UninstallAppType</td>
<td>Specifies a request to uninstall a mail add-in.</td>
</tr>
</tbody>
</table>

#### 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](http://msdn.microsoft.com/en-us/library/office/aa765125) section 2.2.4.17.

```xml
<xs:complexType name="UninstallAppType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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 [XMLSCHEMA2/2](http://www.w3.org/2001/XMLSchema), 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](http://schemas.microsoft.com/exchange/services/2006/messages) WSDL operation request. This type extends the ResponseMessageType complex type, as specified in [MS-OXWSCDATA](http://msdn.microsoft.com/en-us/library/office/aa765125) section 2.2.4.67.

```xml
<xs:complexType name="UninstallAppResponseType" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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
<?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
<?xml version="1.0" encoding="UTF-8"?>
<Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <Header>
    <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"/>
  </Header>
  <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>
      <Manifests xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
        <Manifest>PE9mZmljZUFwC4bWxuc20iA4H</Manifest>
        <Manifest>PE9mZmljZUFwC4bWxuc20iA4H</Manifest>
        <Manifest>PE9mZmljZUFwC4bWxuc20iA4H</Manifest>
        <Manifest>PE9mZmljZUFwC4bWxuc20iA4H</Manifest>
      </Manifests>
    </GetAppManifestsResponse>
  </Body>
</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/"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <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>eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiIsIng1dCI6ImJRQnI5a3gwQ3plblFuaTFDdzJ6NWt1amJvVYjJ9.</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
<?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="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
<?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=15d0d56d146&amp;p2=44&amp;p3=0&amp;p4=HP&amp;p5=0&amp;Scop e=1&amp;CallbackURL=https%3a%2f%2fch1pro03.outlook.com%2feocp%2fExtension%2finstallFromURL.slab %3fexsvurl%3d1%26realm%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
<?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="http://schemas.microsoft.com/exchange/services/2006/messages">
 <soap:Header>
  <t:RequestServerVersion Version="Exchange2013" />
 </soap:Header>
</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:s="http://www.w3.org/2001/XMLSchema-instance">
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"

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:xm=soap="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:xm=ht= nervous.com/microsoft.com/exchange/services/2006/types"
 xmlns:xm_=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"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <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>
```

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"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap: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"/>
  </soap:Header>
  <soap:Body>
    <UninstallAppResponse ResponseClass="Success"
                         xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
    </UninstallAppResponse>
  </soap:Body>
</soap: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
<?xml version="1.0" encoding="UTF-8"?>
    xmlns:soap="http://schemas.xmlsoap.org/soap/
    xmlns: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:xsi="http://www.w3.org/2001/XMLSchema"
            xsi:include schemaLocation="MS-OXWSCEXT-messages.xsd"/>
    </wsdl:types>
    <wsdl:portType name="ExchangeServicePortType">
        <wsdl:operation name="DisableApp">
            <wsdl:input message="tns:DisableAppSoapIn"/>
            <wsdl:output message="tns:DisableAppSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="GetAppManifests">
            <wsdl:input message="tns:GetAppManifestsSoapIn"/>
            <wsdl:output message="tns:GetAppManifestsSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="GetAppMarketplaceUrl">
            <wsdl:input message="tns:GetAppMarketplaceUrlSoapIn"/>
            <wsdl:output message="tns:GetAppMarketplaceUrlSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="GetClientAccessToken">
            <wsdl:input message="tns:GetClientAccessTokenSoapIn"/>
            <wsdl:output message="tns:GetClientAccessTokenSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="InstallApp">
            <wsdl:input message="tns:InstallAppSoapIn"/>
            <wsdl:output message="tns:InstallAppSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="UninstallApp">
            <wsdl:input message="tns:UninstallAppSoapIn"/>
            <wsdl:output message="tns:UninstallAppSoapOut"/>
        </wsdl:operation>
    </wsdl:portType>
    <wsdl:binding name="ExchangeServiceBinding" type="tns:ExchangeServicePortType">
        <wsdl:documentation>
            <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://ws-i.org/schemas/conformanceClaim"/>
        </wsdl:documentation>
        <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
        <wsdl:operation name="DisableApp">
            <wsdl:input>
                <soap:header message="tns:DisableAppSoapIn" part="RequestVersion" use="literal"/>
                <soap:body use="literal" parts="request"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal" parts="DisableAppResult"/>
                <soap:header message="tns:DisableAppSoapOut" part="ServerVersion" use="literal"/>
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="GetClientAccessToken">
            <wsdl:input>
```
<wsdl:part name="DisableAppResult" element="tns:DisableAppResponse"/>
<wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="GetAppManifestsSoapIn">
    <wsdl:part name="request" element="tns:GetAppManifests"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="GetAppManifestsSoapOut">
    <wsdl:part name="GetAppManifestsResult" element="tns:GetAppManifestsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="GetAppMarketplaceUrlSoapIn">
    <wsdl:part name="request" element="tns:GetAppMarketplaceUrl"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="GetAppMarketplaceUrlSoapOut">
    <wsdl:part name="GetAppMarketplaceUrlResult" element="tns:GetAppMarketplaceUrlResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="GetClientAccessTokenSoapIn">
    <wsdl:part name="request" element="tns:GetClientAccessToken"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="GetClientAccessTokenSoapOut">
    <wsdl:part name="GetClientAccessTokenResult" element="tns:GetClientAccessTokenResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="InstallAppSoapIn">
    <wsdl:part name="request" element="tns:InstallApp"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="InstallAppSoapOut">
    <wsdl:part name="InstallAppResult" element="tns:InstallAppResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="UninstallAppSoapIn">
    <wsdl:part name="request" element="tns:UninstallApp"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="UninstallAppSoapOut">
    <wsdl:part name="UninstallAppResult" element="tns:UninstallAppResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
</wsdl:definitions>
7 Appendix B: Full XML Schema

<table>
<thead>
<tr>
<th>Schema name</th>
<th>Prefix</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://schemas.microsoft.com/exchange/services/2006/types">http://schemas.microsoft.com/exchange/services/2006/types</a></td>
<td>t</td>
<td>7.2</td>
</tr>
<tr>
<td><a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a></td>
<td>tns</td>
<td>7.1</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>File name</th>
<th>Defining specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OXWSCDATA-messages.xsd</td>
<td>[MS-OXWSCDATA] section 7.1</td>
</tr>
<tr>
<td>MS-OXWSCEXT-types.xsd</td>
<td>section 7.2</td>
</tr>
</tbody>
</table>

```xml
<?xml version="1.0" encoding="UTF-8"?>
    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="tns:GetClientAccessTokenType"/>
    <xs:complexType name="GetClientAccessTokenResponseMessageType">
        <xs:complexContent mixed="false">
            <xs:extension base="tns:ResponseMessageType">
                <xs:sequence>
                    <xs:element minOccurs="0" name="Token" type="t:ClientAccessTokenType"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
    <xs:element name="GetClientAccessTokenResponse" type="tns:GetClientAccessTokenResponseType"/>
</xs:schema>
```
<xs:complexType name="BaseRequestType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestType">
      <xs:sequence>
        <xs:element minOccurs="1" maxOccurs="1" name="TokenRequests" type="t:NonEmptyArrayOfClientAccessTokenRequestsType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:complexType name="GetAppManifestsResponseType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:ResponseMessageType">
      <xs:sequence>
        <xs:element maxOccurs="1" name="Manifests" type="tns:ArrayOfAppManifestsType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:complexType name="GetAppManifestsType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestType"/>
  </xs:complexContent>
</xs:complexType>

<xs:complexType name="GetAppMarketplaceUrlType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestType"/>
  </xs:complexContent>
</xs:complexType>

<xs:element name="GetAppManifestsResponse" type="tns:GetAppManifestsResponseType"/>
<xs:complexType name="GetAppManifestsResponseType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="Manifests" type="tns:ArrayOfAppManifestsType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:element name="GetAppManifests" type="tns:GetAppManifestsType"/>
<xs:complexType name="GetAppManifestsType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestType"/>
  </xs:complexContent>
</xs:complexType>

<xs:element name="GetAppMarketplaceUrl" type="tns:GetAppMarketplaceUrlType"/>
<xs:complexType name="GetAppMarketplaceUrlType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestType"/>
  </xs:complexContent>
</xs:complexType>

<xs:element name="GetAppMarketplaceUrlResponse" type="tns:GetAppMarketplaceUrlResponseMessageType"/>
<xs:complexType name="GetAppMarketplaceUrlResponseMessageType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="AppMarketplaceUrl" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:element name="GetAppMarketplaceUrl" type="tns:GetAppMarketplaceUrlType"/>
<xs:complexType name="GetAppMarketplaceUrlType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:BaseRequestType"/>
  </xs:complexContent>
</xs:complexType>

<xs:element name="GetAppMarketplaceUrlResponse" type="tns:GetAppMarketplaceUrlResponseMessageType"/>
<xs:complexType name="GetAppMarketplaceUrlResponseMessageType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="AppMarketplaceUrl" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>

<xs:element name="GetAppMarketplaceUrlResponse" type="tns:GetAppMarketplaceUrlResponseMessageType"/>
<xs:complexType name="GetAppMarketplaceUrlResponseMessageType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="AppMarketplaceUrl" type="xs:string"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:extension base="tns: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="tns:UninstallAppType"/>
<xs:complexType name="UninstallAppResponseType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:ResponseMessageType"/>
  </xs:complexContent>
</xs:complexType>

<xs:element name="UninstallAppResponse" type="tns:UninstallAppResponseType"/>
<xs:complexType name="DisableAppType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns: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="tns:DisableAppType"/>
<xs:complexType name="DisableAppResponseType">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:ResponseMessageType"/>
  </xs:complexContent>
</xs:complexType>

<xs:element name="DisableAppResponse" type="tns: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: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:enumeration value="ExtensionRestApiCallback"/>
    </xs:restriction>
  </xs:simpleType>
</xs:schema>
<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 updates to those products.

- Microsoft Exchange Server 2013
- Microsoft Exchange Server 2016
- Microsoft Exchange Server 2019
- Microsoft Outlook 2013
- Microsoft Outlook 2016
- Microsoft Outlook 2019

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates 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 3.1.4.5.3.2: 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 Major, Minor, or None.

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.
- A document revision that captures changes to protocol functionality.

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 **None** means that no new technical changes were introduced. Minor editorial and formatting changes may have been made, but the relevant technical content is identical to the last released version.

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

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