

[MS-OXWSCEXT]: Client Extension Web Service Protocol

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Revision Summary

| Date | Revision History | Revision Class | Comments |
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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 apps**.

Sections 1.8, 2, and 3 of this specification are normative and can contain the terms MAY, SHOULD, MUST, MUST NOT, and SHOULD NOT as defined in [\[RFC2119\]](#). Sections 1.5 and 1.9 are also normative but do not contain those terms. All other sections and examples in this specification are informative.

1.1 Glossary

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

- base64 encoding**
- endpoint**
- Hypertext Transfer Protocol (HTTP)**
- Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**
- mail app**
- mailbox**
- SOAP**
- SOAP action**
- SOAP body**
- SOAP header**
- Uniform Resource Locator (URL)**
- web server**
- web service**
- Web Services Description Language (WSDL)**
- WSDL message**
- WSDL operation**
- WSDL port type**
- XML**
- XML namespace**
- XML namespace prefix**
- XML schema**

The following terms are specific to this document:

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

1.2 References

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

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information.

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

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

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

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

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

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

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

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

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

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

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

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

1.2.2 Informative References

[MS-OWEMXML] Microsoft Corporation, "[Office Web Extensibility Manifest Format](#)".

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

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

[MS-OXPROTO] Microsoft Corporation, "[Exchange Server Protocols System Overview](#)".

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 app.

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** (4) to use for each operation.

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

This protocol uses SOAP over **HTTP**, as described in [\[RFC2616\]](#), and SOAP over **HTTPS**, as described in [\[RFC2818\]](#), as shown in the following layering diagram.

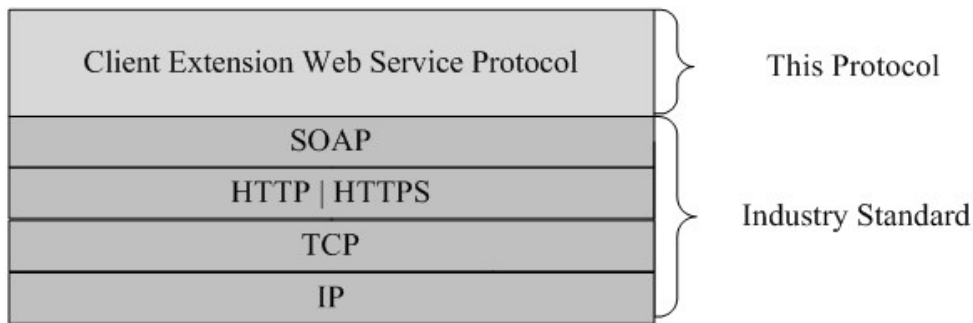


Figure 1: This protocol in relation to other protocols

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

1.5 Prerequisites/Preconditions

The operations that this protocol defines cannot be accessed unless the correct endpoint (4) is identified in the HTTP web requests that target this protocol. This endpoint (4) **URL** is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol, as specified in [\[MS-OXWSADISC\]](#), or the Autodiscover Publishing and Lookup Protocol, as specified in [\[MS-OXDSCLI\]](#).

1.6 Applicability Statement

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

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported Transports:** This protocol uses SOAP 1.1, as described in section [2.1](#).
- **Protocol Versions:** This protocol describes only one **WSDL port type** version. The **RequestServerVersion** element, as described in [\[MS-OXWSCDATA\]](#) section [2.2.4.7](#), identifies the WSDL port type version of the request. The **ServerVersionInfo** element, as described in [\[MS-OXWSCDATA\]](#) section [2.2.4.8](#), identifies the version of the server responding to the request.
- **Security and Authentication Methods:** This protocol relies on the **web server** that is hosting it to perform authentication.

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

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

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

2.1 Transport

This protocol uses SOAP 1.1, as specified in [\[SOAP1.1\]](#).

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

2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses XML schema, as specified in [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#), and Web Services Description Language (WSDL), as specified in [\[WSDL\]](#).

2.2.1 Namespaces

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

| Prefix | Namespace URI | Reference |
|--------|---|--|
| m | http://schemas.microsoft.com/exchange/services/2006/messages | |
| soap | http://schemas.xmlsoap.org/wsdl/soap/ | [SOAP1.1] |
| t | http://schemas.microsoft.com/exchange/services/2006/types | |
| wsdl | http://schemas.xmlsoap.org/wsdl/ | [WSDL] |
| wsi | http://ws-i.org/schemas/conformanceClaim/ | [WSIBASIC] |
| xs | http://www.w3.org/2001/XMLSchema | [XMLSCHEMA1] [XMLSCHEMA2] |

2.2.2 Messages

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

2.2.3 Elements

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

2.2.4 Complex Types

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

2.2.5 Simple Types

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

2.2.6 Attributes

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

2.2.7 Groups

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

2.2.8 Attribute Groups

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

3 Protocol Details

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

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

3.1 ExchangeServicePortType Server Details

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

3.1.1 Abstract Data Model

None.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

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

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

3.1.4.1 DisableApp

The **DisableApp** WSDL operation disables a mail app.

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

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

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

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

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

3.1.4.1.1 Messages

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

| Message | Description |
|--------------------------|---|
| DisableAppSoapIn | Specifies a request to disable a mail app. |
| DisableAppSoapOut | Specifies the response to the DisableAppSoapIn request WSDL message. |

3.1.4.1.1.1 DisableAppSoapIn

The **DisableAppSoapIn** request WSDL message specifies a request to disable a mail app.

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

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

</wsdl:message>

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

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

| Part name | Element/type | Description |
|-----------------------|--|---|
| request | DisableApp (section 3.1.4.1.2.1) | Specifies the SOAP body of the request to disable a mail app. |
| RequestVersion | RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9) | Specifies a SOAP header that identifies the schema version for the DisableApp WSDL operation request. |

3.1.4.1.1.2 DisableAppSoapOut

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

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

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

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

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

| Part name | Element/type | Description |
|-------------------------|--|--|
| DisableAppResult | DisableAppResponse (section 3.1.4.1.2.2) | Specifies the SOAP body of the response. |
| ServerVersion | ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10) | Specifies a SOAP header that identifies the server version for the response. |

A successful **DisableApp** WSDL operation request returns a **DisableAppResponse** element with the **ResponseClass** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) attribute set to "Success". The **ResponseCode** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) 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 2.2.5.23.

3.1.4.1.2 Elements

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

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

3.1.4.1.2.1 DisableApp

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

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

3.1.4.1.2.2 DisableAppResponse

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

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

3.1.4.1.3 Complex Types

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

| Complex type | Description |
|-------------------------------|---|
| DisableAppResponseType | Specifies the response to a DisableApp WSDL operation request. |
| DisableAppType | Specifies a request to disable a mail app. |

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 app. This type extends the **BaseRequestType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.15.

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

```
</xs:complexType>
```

ID: An element of type **string**, as defined in [\[XMLSCHEMA2\]](#), that identifies the mail app.

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

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 2.2.4.57.

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

3.1.4.1.4 Simple Types

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

| Simple type | Description |
|--------------------------|--|
| DisableReasonType | Indicates the reason the mail app is being disabled. |

3.1.4.1.4.1 DisableReasonType

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

The **DisableReasonType** simple type indicates the reason the mail app is being disabled.

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

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

| Value | Meaning |
|--------------------------|--|
| NoReason | No reason specified. |
| OutlookClientPerformance | The mail app is being disabled from the messaging client due to performance. |

| Value | Meaning |
|-------------------------|---|
| OWAClientPerformance | The mail app is being disabled from the web client due to performance. |
| MobileClientPerformance | The mail app is being disabled from the mobile client due to performance. |

3.1.4.1.5 Attributes

None.

3.1.4.1.6 Groups

None.

3.1.4.1.7 Attribute Groups

None.

3.1.4.2 GetAppManifests

The **GetAppManifests** WSDL operation retrieves the manifest files for a mail app.

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

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

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

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

3.1.4.2.1 Messages

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

| Message | Description |
|-------------------------------|--|
| GetAppManifestsSoapIn | Specifies a request to retrieve mail app manifest files. |
| GetAppManifestsSoapOut | Specifies the response to the GetAppManifestsSoapIn request WSDL message. |

3.1.4.2.1.1 GetAppManifestsSoapIn

The **GetAppManifestsSoapIn** WSDL message specifies a request to retrieve mail app manifest files.

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

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

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

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

| Part name | Element/type | Description |
|-----------------------|--|---|
| request | GetAppManifests (section 3.1.4.2.2.1) | Specifies the SOAP body of the request to retrieve manifest files. |
| RequestVersion | RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9) | Specifies a SOAP header that identifies the schema version for the GetAppManifests WSDL operation request. |

3.1.4.2.1.2 GetAppManifestsSoapOut

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

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

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

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

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

| Part name | Element/type | Description |
|------------------------------|--------------------------------|--|
| GetAppManifestsResult | GetAppManifestsResponse | Specifies the SOAP body of the response. |

| Part name | Element/type | Description |
|----------------------|--|--|
| | (section 3.1.4.2.2.2) | |
| ServerVersion | ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10) | Specifies a SOAP header that identifies the server version for the response. |

A successful **GetAppManifests** WSDL operation request returns a **GetAppManifestsResponse** element with the **ResponseClass** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) attribute set to "Success". The **ResponseCode** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) 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 2.2.5.23.

3.1.4.2.2 Elements

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

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

3.1.4.2.2.1 GetAppManifests

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

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

3.1.4.2.2.2 GetAppManifestsResponse

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

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

3.1.4.2.3 Complex Types

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

| Complex type | Description |
|--------------------------------|--|
| ArrayOfAppManifestsType | Specifies an array of mail app manifest files. |

| Complex type | Description |
|------------------------------------|---|
| GetAppManifestsResponseType | Specifies the response to a GetAppManifests WSDL operation request |
| GetAppManifestsType | Specifies a request to retrieve mail app manifest files. |

3.1.4.2.3.1 GetAppManifestsType

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

The **GetAppManifestsType** complex type specifies a request to retrieve mail app manifest files. This type extends the **BaseRequestType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.15.

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

3.1.4.2.3.2 GetAppManifestsResponseType

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

The **GetAppManifestsResponseType** complex type specifies the response to a **GetAppManifests** WSDL operation request. This type extends the **ResponseMessageType**, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.57.

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

Manifests: An element of type **ArrayOfAppManifestsType** that represents an array of mail app 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 app manifest files.

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

```
</xs:complexType>
```

Manifest: An element of type **base64Binary**, as defined in [\[XMLSCHEMA2\]](#), that represents a mail app 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 app.

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

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

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

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

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

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

3.1.4.3.1 Messages

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

| Message | Description |
|------------------------------------|---|
| GetAppMarketplaceUriSoapIn | Specifies a request to retrieve the marketplace URL. |
| GetAppMarketplaceUriSoapOut | Specifies the response to the GetAppMarketplaceUriSoapIn request WSDL message. |

3.1.4.3.1.1 GetAppMarketplaceUriSoapIn

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

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

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

The **GetAppMarketplaceUriSoapIn** WSDL message is the input message for the SOAP action <http://schemas.microsoft.com/exchange/services/2006/messages/GetAppMarketplaceUri>.

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

| Part name | Element/type | Description |
|-----------------------|--|--|
| request | GetAppMarketplaceUri (section 3.1.4.3.2.1) | Specifies the SOAP body of the request to retrieve the marketplace URL. |
| RequestVersion | RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9) | Specifies a SOAP header that identifies the schema version for the GetAppMarketplaceUri WSDL operation request. |

3.1.4.3.1.2 GetAppMarketplaceUriSoapOut

The **GetAppMarketplaceUriSoapOut** WSDL message specifies the response to a **GetAppMarketplaceUriSoapIn** request WSDL message.

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

```
<wsdl:message name="GetAppMarketplaceUriSoapOut"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:part name="GetAppMarketplaceUriResult" element="m:GetAppMarketplaceUriResponse"/>
  <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
```

</wsdl:message>

The **GetAppMarketplaceUriSoapOut** WSDL message is the output message for the SOAP action <http://schemas.microsoft.com/exchange/services/2006/messages/GetAppMarketplaceUri>.

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

| Part name | Element/type | Description |
|-----------------------------------|--|--|
| GetAppMarketplaceUriResult | GetAppMarketplaceUriResponse (section 3.1.4.3.2.2) | Specifies the SOAP body of the response. |
| ServerVersion | ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10) | Specifies a SOAP header that identifies the server version for the response. |

A successful **GetAppMarketplaceUri** WSDL operation request returns a **GetAppMarketplaceUriResponse** element with the **ResponseClass** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) attribute set to "Success". The **ResponseCode** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) element of the **GetAppMarketplaceUriResponse** element is set to "NoError".

If the **GetAppMarketplaceUri** WSDL operation is not successful, it returns a **GetAppMarketplaceUriResponse** element with the **ResponseClass** attribute set to "Error". The **ResponseCode** element of the **GetAppMarketplaceUriResponse** element is set to one of the common errors defined in [\[MS-OXWSCDATA\]](#) section 2.2.5.23.

3.1.4.3.2 Elements

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

| Element | Description |
|-------------------------------------|---|
| GetAppMarketplaceUri | The input data for the GetAppMarketplaceUri WSDL operation. |
| GetAppMarketplaceUriResponse | The result data for the GetAppMarketplaceUri WSDL operation. |

3.1.4.3.2.1 GetAppMarketplaceUri

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

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

3.1.4.3.2.2 GetAppMarketplaceUriResponse

The **GetAppMarketplaceUriResponse** element specifies the result data for the **GetAppMarketplaceUri** WSDL operation.

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

3.1.4.3.3 Complex Types

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

| Complex type | Description |
|--|--|
| GetAppMarketplaceUrlResponseMessageType | Specifies the response message for a GetAppMarketplaceUri WSDL operation request. |
| GetAppMarketplaceUriType | Specifies a request to retrieve the marketplace URL. |

3.1.4.3.3.1 GetAppMarketplaceUriType

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

The **GetAppMarketplaceUriType** complex type specifies a request to retrieve the marketplace URL for a mail app. This type extends the **BaseRequestType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.15.

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

3.1.4.3.3.2 GetAppMarketplaceUrlResponseMessageType

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

The **GetAppMarketplaceUrlResponseMessageType** complex type specifies the response to a **GetAppMarketplaceUri** WSDL operation request. This type extends the **ResponseMessageType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.57.

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

AppMarketplaceUrl: An element of type **string**, as defined in [\[XMLSCHEMA2\]](#), that specifies the URL for the mail app.

3.1.4.3.4 Simple Types

None.

3.1.4.3.5 Attributes

None.

3.1.4.3.6 Groups

None.

3.1.4.3.7 Attribute Groups

None.

3.1.4.4 GetClientAccessToken

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

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

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

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

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

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

3.1.4.4.1 Messages

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

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

3.1.4.4.1.1 GetClientAccessTokenSoapIn

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

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

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

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

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

| Part name | Element/type | Description |
|-----------------------|--|--|
| request | GetClientAccessToken (section 3.1.4.4.2.1) | Specifies the SOAP body of the request to retrieve the client access token. |
| RequestVersion | RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9) | Specifies a SOAP header that identifies the schema version for the GetClientAccessToken WSDL operation request. |

3.1.4.4.1.2 GetClientAccessTokenSoapOut

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

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

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

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

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

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

A successful **GetClientAccessToken** WSDL operation request returns a **GetClientAccessTokenResponse** element with the **ResponseClass** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) attribute set to "Success". The **ResponseCode** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) 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 2.2.5.23.

3.1.4.4.2 Elements

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

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

3.1.4.4.2.1 GetClientAccessToken

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

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

3.1.4.4.2.2 GetClientAccessTokenResponse

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

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

3.1.4.4.3 Complex Types

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

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

3.1.4.4.3.1 GetClientAccessTokenType

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

The **GetClientAccessTokenType** complex type specifies a request to retrieve a client access token. This type extends the **BaseRequestType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.15.

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

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

3.1.4.4.3.2 NonEmptyArrayOfClientAccessTokenRequestsType

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

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

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

```
</xs:complexType>
```

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

3.1.4.4.3.3 ClientAccessTokenRequestType

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

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

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

Id: An element of type **string**, as defined in [\[XMLSCHEMA2\]](#), that contains the identifier of the mail app.

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

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 2.2.4.57.

```
<xs:complexType name="GetClientAccessTokenResponseMessageType"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexContent mixed="false">
    <xs:extension base="m:ResponseMessageType">
      <xs:sequence>
        <xs:element minOccurs="0" name="Token" type="t:ClientAccessTokenType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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

3.1.4.4.3.5 ClientAccessTokenType

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

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

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

```

<xs:sequence>
  <xs:element name="Id" type="xs:string"/>
  <xs:element name="TokenType" type="t:ClientAccessTokenTypeType"/>
  <xs:element name="TokenValue" type="xs:string"/>
  <xs:element name="TTL" type="xs:integer"/>
</xs:sequence>
</xs:complexType>

```

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

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

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

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

3.1.4.4.3.6 GetClientAccessTokenResponseType

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

The **GetClientAccessTokenResponseType** complex type specifies the response to a **GetClientAccessToken** WSDL operation request. This type extends the **BaseResponseMessageType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.16.

```

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

```

3.1.4.4.4 Simple Types

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

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

3.1.4.4.4.1 ClientAccessTokenTypeType

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

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

```

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

```

```
</xs:simpleType>
```

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

| Value | Meaning |
|-------------------|--|
| CallerIdentity | Indicates a caller identity client access token. |
| ExtensionCallback | Indicates an extension callback client access token. |

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 app.

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

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

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

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

3.1.4.5.1 Messages

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

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

3.1.4.5.1.1 InstallAppSoapIn

The **InstallAppSoapIn** WSDL message specifies a request to install a mail app.

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

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

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

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

| Part name | Element/type | Description |
|-----------------------|--|--|
| request | InstallApp (section 3.1.4.5.2.1) | Specifies the SOAP body of the request to install a mail app. |
| RequestVersion | RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9) | Specifies a SOAP header that identifies the schema version for the InstallApp WSDL operation request. |

3.1.4.5.1.2 InstallAppSoapOut

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

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

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

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

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

| Part name | Element/type | Description |
|-------------------------|--|--|
| InstallAppResult | InstallAppResponse (section 3.1.4.5.2.2) | Specifies the SOAP body of the response. |
| ServerVersion | ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10) | Specifies a SOAP header that identifies the server version for the response. |

A successful **InstallApp** WSDL operation request returns an **InstallAppResponse** element with the **ResponseClass** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) attribute set to "Success". The **ResponseCode** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) 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 2.2.5.23.

3.1.4.5.2 Elements

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

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

3.1.4.5.2.1 InstallApp

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

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

3.1.4.5.2.2 InstallAppResponse

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

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

3.1.4.5.3 Complex Types

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

| Complex type | Description |
|-------------------------------|--|
| InstallAppResponseType | Specifies the response to an InstallApp WSDL operation request. |

| Complex type | Description |
|-----------------------|--|
| InstallAppType | Specifies a request to install a mail app. |

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 app. This type extends the **BaseRequestType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.15.

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

Manifest: An element of type **base64Binary**, as defined in [\[XMLSCHEMA2\]](#), that contains the mail app manifest file encoded with base64 encoding.

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 2.2.4.57.

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

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 app.

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

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

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

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

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

3.1.4.6.1 Messages

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

| Message | Description |
|----------------------------|---|
| UninstallAppSoapIn | Specifies a request to uninstall a mail app. |
| UninstallAppSoapOut | Specifies the response to the UninstallAppSoapIn request WSDL message. |

3.1.4.6.1.1 UninstallAppSoapIn

The **UninstallAppSoapIn** WSDL message specifies a request to uninstall a mail app.

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

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

</wsdl:message>

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

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

| Part name | Element/type | Description |
|-----------------------|--|--|
| request | UninstallApp (section 3.1.4.6.2.1) | Specifies the SOAP body of the request to uninstall a mail app. |
| RequestVersion | RequestServerVersion ([MS-OXWSCDATA] section 2.2.3.9) | Specifies a SOAP header that identifies the schema version for the UninstallApp WSDL operation request. |

3.1.4.6.1.2 UninstallAppSoapOut

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

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

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

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

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

| Part name | Element/type | Description |
|---------------------------|--|--|
| UninstallAppResult | UninstallAppResponse (section 3.1.4.6.2.2) | Represents the result of the operation. |
| ServerVersion | ServerVersionInfo ([MS-OXWSCDATA] section 2.2.3.10) | Specifies a SOAP header that identifies the server version for the response. |

A successful **UninstallApp** WSDL operation request returns an **UninstallAppResponse** element with the **ResponseClass** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) attribute set to "Success". The **ResponseCode** ([\[MS-OXWSCDATA\]](#) section 2.2.4.57) 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 2.2.5.23.

3.1.4.6.2 Elements

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

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

3.1.4.6.2.1 UninstallApp

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

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

3.1.4.6.2.2 UninstallAppResponse

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

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

3.1.4.6.3 Complex Types

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

| Complex type | Description |
|---------------------------------|--|
| UninstallAppResponseType | Specifies the response to an UninstallApp WSDL operation request. |
| UninstallAppType | Specifies a request to uninstall a mail app. |

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 app. This type extends the **BaseRequestType**, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.15.

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

```
</xs:complexType>
```

ID: An element of type **string**, as defined in [\[XMLSCHEMA2\]](#), that specifies the identifier of the mail app.

3.1.4.6.3.2 UninstallAppResponseType

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

The **UninstallAppResponseType** complex type specifies the response to an **UninstallApp** WSDL operation request. This type extends the **ResponseMessageType** complex type, as specified in [\[MS-OXWSCDATA\]](#) section 2.2.4.57.

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

3.1.4.6.4 Simple Types

None.

3.1.4.6.5 Attributes

None.

3.1.4.6.6 Groups

None.

3.1.4.6.7 Attribute Groups

None.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

4.1 Getting App Manifest Files

This example of the **GetAppManifests** operation, as defined in section [3.1.4.2](#), shows how a client can retrieve the manifest files for mail apps from the server. The client sends the following request.

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

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

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



```

        <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 app.

```

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

```

The server sends the following successful response to the client.

```

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

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

```

```
</s:Envelope>
```

4.4 Installing a Mail App

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

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
  xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages">
  <soap:Header>
    <t:RequestServerVersion Version="Exchange2013" />
    <t:MailboxCulture>en-US</t:MailboxCulture>
    <t:TimeZoneContext>
      <t:TimeZoneDefinition Id="GMT Standard Time"/>
    </t:TimeZoneContext>
  </soap:Header>
  <soap:Body >
    <m:InstallApp>
      <m:Manifest>PE9mZmljZUFwcCB4bWxucz0iaHR0cDovL3NjaG=</m:Manifest>
    </m:InstallApp>
  </soap:Body>
</soap:Envelope>
```

The server sends the following successful response to the client.

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

4.5 Disabling a Mail App

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

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

The server sends the following successful response to the client.

```
<?xml 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://schemas.microsoft.com/exchange/services/2006/types"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <DisableAppResponse ResponseClass="Success"
      xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <ResponseCode>NoError</ResponseCode>
    </DisableAppResponse>
  </s:Body>
</s:Envelope>
```

4.6 Uninstalling a Mail App

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

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
```

```

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

```

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

For ease of implementation, the full WSDL is provided in this appendix.

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xs:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
version="Exchange2013" id="messages" xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:include schemaLocation="MS-OXWSCEXT-messages.xsd"/>
    </xs:schema>
  </wsdl:types>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="DisableApp">
      <wsdl:input message="m:DisableAppSoapIn"/>
      <wsdl:output message="m:DisableAppSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetAppManifests">
      <wsdl:input message="m:GetAppManifestsSoapIn"/>
      <wsdl:output message="m:GetAppManifestsSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetAppMarketplaceUrl">
      <wsdl:input message="m:GetAppMarketplaceUrlSoapIn"/>
      <wsdl:output message="m:GetAppMarketplaceUrlSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="GetClientAccessToken">
      <wsdl:input message="m:GetClientAccessTokenSoapIn"/>
      <wsdl:output message="m:GetClientAccessTokenSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="InstallApp">
      <wsdl:input message="m:InstallAppSoapIn"/>
      <wsdl:output message="m:InstallAppSoapOut"/>
    </wsdl:operation>
    <wsdl:operation name="UninstallApp">
      <wsdl:input message="m:UninstallAppSoapIn"/>
      <wsdl:output message="m:UninstallAppSoapOut"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="ExchangeServiceBinding" type="m:ExchangeServicePortType">
    <wsdl:documentation>
      <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://ws-
i.org/schemas/conformanceClaim/" />
    </wsdl:documentation>
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="DisableApp">
      <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/DisableApp"/>
      <wsdl:input>
        <soap:header message="m:DisableAppSoapIn" part="RequestVersion" use="literal"/>
        <soap:body use="literal" parts="request"/>
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" parts="DisableAppResult"/>
        <soap:header message="m:DisableAppSoapOut" part="ServerVersion" use="literal"/>
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>

```

```

        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetClientAccessToken">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetClientAccessToken
"/>
        <wsdl:input>
            <soap:header message="m:GetClientAccessTokenSoapIn" part="RequestVersion"
use="literal"/>
            <soap:body use="literal" parts="request"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" parts="GetClientAccessTokenResult"/>
            <soap:header message="m:GetClientAccessTokenSoapOut" part="ServerVersion"
use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAppManifests">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetAppManifests"/>
        <wsdl:input>
            <soap:header message="m:GetAppManifestsSoapIn" part="RequestVersion" use="literal"/>
            <soap:body use="literal" parts="request"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" parts="GetAppManifestsResult"/>
            <soap:header message="m:GetAppManifestsSoapOut" part="ServerVersion" use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="GetAppMarketplaceUrl">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/GetAppMarketplaceUrl
"/>
        <wsdl:input>
            <soap:header message="m:GetAppMarketplaceUrlSoapIn" part="RequestVersion"
use="literal"/>
            <soap:body use="literal" parts="request"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" parts="GetAppMarketplaceUrlResult"/>
            <soap:header message="m:GetAppMarketplaceUrlSoapOut" part="ServerVersion"
use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="InstallApp">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/InstallApp"/>
        <wsdl:input>
            <soap:header message="m:InstallAppSoapIn" part="RequestVersion" use="literal"/>
            <soap:body use="literal" parts="request"/>
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" parts="InstallAppResult"/>
            <soap:header message="m:InstallAppSoapOut" part="ServerVersion" use="literal"/>
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="UninstallApp">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/Uninstall"/>
        <wsdl:input>

```

```

        <soap:header message="m:UninstallAppSoapIn" part="RequestVersion" use="literal"/>
        <soap:body use="literal" parts="request"/>
    </wsdl:input>
    <wsdl:output>
        <soap:body use="literal" parts="UninstallAppResult"/>
        <soap:header message="m:UninstallAppSoapOut" part="ServerVersion" use="literal"/>
    </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:message name="DisableAppSoapIn">
    <wsdl:part name="request" element="m:DisableApp"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="DisableAppSoapOut">
    <wsdl:part name="DisableAppResult" element="m:DisableAppResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="GetAppManifestsSoapIn">
    <wsdl:part name="request" element="m:GetAppManifests"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="GetAppManifestsSoapOut">
    <wsdl:part name="GetAppManifestsResult" element="m:GetAppManifestsResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="GetAppMarketplaceUrlSoapIn">
    <wsdl:part name="request" element="m:GetAppMarketplaceUrl"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="GetAppMarketplaceUrlSoapOut">
    <wsdl:part name="GetAppMarketplaceUrlResult" element="m:GetAppMarketplaceUrlResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="GetClientAccessTokenSoapIn">
    <wsdl:part name="request" element="m:GetClientAccessToken"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="GetClientAccessTokenSoapOut">
    <wsdl:part name="GetClientAccessTokenResult" element="m:GetClientAccessTokenResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="InstallAppSoapIn">
    <wsdl:part name="request" element="m:InstallApp"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="InstallAppSoapOut">
    <wsdl:part name="InstallAppResult" element="m:InstallAppResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
<wsdl:message name="UninstallAppSoapIn">
    <wsdl:part name="request" element="m:UninstallApp"/>
    <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>
</wsdl:message>
<wsdl:message name="UninstallAppSoapOut">
    <wsdl:part name="UninstallAppResult" element="m:UninstallAppResponse"/>
    <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wsdl:message>
</wsdl:definitions>

```


7 Appendix B: Full XML Schema

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

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

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

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

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

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

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
version="Exchange2013" id="messages" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:include schemaLocation="MS-OXWSCDATA-messages.xsd"/>
  <xs:include schemaLocation="MS-OXWSCEXT-messages.xsd"/>
  <xs:import schemaLocation="MS-OXWSCEXT-types.xsd"
namespace="http://schemas.microsoft.com/exchange/services/2006/types"/>
  <xs:complexType name="ArrayOfAppManifestsType">
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="unbounded" name="Manifest"
type="xs:base64Binary"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="GetClientAccessToken" type="m:GetClientAccessTokenType"/>
  <xs:complexType name="GetClientAccessTokenResponseMessageType">
    <xs:complexContent mixed="false">
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element minOccurs="0" name="Token" type="t:ClientAccessTokenType"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="GetClientAccessTokenResponseType">
    <xs:complexContent mixed="false">
      <xs:extension base="m:BaseResponseMessageType"/>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetClientAccessTokenResponse" type="m:GetClientAccessTokenResponseType"/>

```

```

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

```

```

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

```

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

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

```

<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
version="Exchange2013" id="types" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
  <xs:complexType name="ClientAccessTokenRequestType">
    <xs:sequence>
      <xs:element name="Id" type="xs:string"/>
      <xs:element name="TokenType" type="t:ClientAccessTokenTypeType"/>
    </xs: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:sequence>
  </xs:complexType>
  <xs:simpleType name="ClientAccessTokenTypeType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="CallerIdentity"/>
      <xs:enumeration value="ExtensionCallback"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="DisableReasonType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="NoReason"/>
      <xs:enumeration value="OutlookClientPerformance"/>
      <xs:enumeration value="OWAClientPerformance"/>
      <xs:enumeration value="MobileClientPerformance"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:complexType name="NonEmptyArrayOfClientAccessTokenRequestsType">
    <xs:sequence>
      <xs:element maxOccurs="unbounded" name="TokenRequest"
type="t:ClientAccessTokenRequestType"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>

```

8 Appendix C: Product Behavior

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

- Microsoft Exchange Server 2013
- Microsoft Outlook 2013

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

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

9 Change Tracking

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

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