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## Revision Summary

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1 Introduction

The Get Server Time Zone Web Service Protocol returns time zone information that is used by the server.

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

1.1 Glossary

This document uses the following terms:

**Coordinated Universal Time (UTC)**: A high-precision atomic time standard that approximately tracks Universal Time (UT). It is the basis for legal, civil time all over the Earth. Time zones around the world are expressed as positive and negative offsets from UTC. In this role, it is also referred to as Zulu time (Z) and Greenwich Mean Time (GMT). In these specifications, all references to UTC refer to the time at UTC-0 (or GMT).

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

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

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

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

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

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

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

**SOAP message**: An XML document consisting of a mandatory SOAP envelope, an optional SOAP header, and a mandatory SOAP body. See [SOAP1.2-1/2007] section 5 for more information.

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

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

**web service**: A unit of application logic that provides data and services to other applications and can be called by using standard Internet transport protocols such as HTTP, Simple Mail Transfer Protocol (SMTP), or File Transfer Protocol (FTP). Web services can perform functions that range from simple requests to complicated business processes.
**Web Services Description Language (WSDL):** An XML format for describing network services as a set of endpoints that operate on messages that contain either document-oriented or procedure-oriented information. The operations and messages are described abstractly and are bound to a concrete network protocol and message format in order to define an endpoint. Related concrete endpoints are combined into abstract endpoints, which describe a network service. WSDL is extensible, which allows the description of endpoints and their messages regardless of the message formats or network protocols that are used.

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

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

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

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

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

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

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

### 1.2 References

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

#### 1.2.1 Normative References

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

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

The Get Server Time Zone Web Service Protocol provides clients with time zone information that is supported by the server. Clients request the list of time zones for which the server has definitions, then use this information when making requests to other web service protocols, or to present time-based information to the user.

1.4 Relationship to Other Protocols

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

This protocol uses SOAP, as described in [SOAP1.1], to specify the structure information that is exchanged between the client and 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.

The Get Server Time Zone Web Service Protocol uses SOAP over HTTP, as described in [RFC2616], and SOAP over HTTPS, as described in [RFC2818], as shown in the following figure.

![Figure 1: This protocol in relation to other protocols](image)

The time zone information that is returned by this protocol is used when requests are made by using the following protocols:

- Attachment Handling Web Service Protocol, as described in [MS-OXWSATT]
- Contacts Web Service Protocol, as described in [MS-OXWSCONT]
- Distribution List Creation and Usage Web Service Protocol, as described in [MS-OXWSDLIST]
- Email Message Types Web Service Protocol, as described in [MS-OXWSMSG]
- Calendaring Web Service Protocol, as described in [MS-OXWSMTGS]
- Post Items Web Service Protocol, as described in [MS-OXWSPOST]
- Mailbox Search Web Service Protocol, as described in [MS-OXWSSRCH]
- Mailbox Contents Synchronization Web Service Protocol, as described in [MS-OXWSSYNC]
- Tasks Web Service Protocol, as described in [MS-OXWSTASK]

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

### 1.5 Prerequisites/Preconditions

The endpoint URL that is returned by either the Autodiscover Publishing Lookup SOAP-Based Web Service Protocol, as described in [MS-OXWSADISC] or the Autodiscover Publishing and Lookup Protocol, as described in [MS-OXDSCL], is required to form the HTTP request to the web server that hosts this protocol. The operations that this protocol defines cannot be accessed unless the correct endpoint is identified in the HTTP web requests that target this protocol.

### 1.6 Applicability Statement

This protocol is applicable to client applications that create, update, or manage items in the server data store that include time or date information.

### 1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:
- **Supported Transports:** This protocol uses SOAP 1.1, as specified in section 2.1.

- **Protocol Versions:** This protocol specifies only one WSDL port type version. The WSDL version of the request is identified by using the `t:RequestServerVersion` element, as described in [MS-OXWSCDATA] section 2.2.3.9, and the version of the server responding to the request is identified by using the `t:ServerVersionInfo` element, as described in [MS-OXWSCDATA] section 2.2.3.10.

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

- **Localization:** This protocol includes text strings in various messages. Localization considerations for such strings are specified in section 3.1.4.

- **Capability Negotiation:** None.

1.8 **Vendor-Extensible Fields**

None.

1.9 **Standards Assignments**

None.
2 Messages

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

2.1 Transport

The SOAP version supported is SOAP 1.1. For details, see [SOAP1.1].

This protocol relies on the web server that hosts the application to perform authentication. The protocol MUST support SOAP over HTTP, as specified in [RFC2616]. The protocol SHOULD use secure communications via 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 defined in [XMLSCHEMA1] and [XMLSCHEMA2], and Web Services Description Language (WSDL), as defined in [WSDL].

2.2.1 Namespaces

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

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<th>Namespace URI</th>
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<td>xs</td>
<td><a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a></td>
<td>[XMLSCHEMA1]</td>
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</table>

2.2.2 Messages

This specification does not define any common WSDL message definitions.

2.2.3 Elements

The following table summarizes the set of common XML schema element definitions that are defined by this specification. XML schema element definitions that are specific to a particular operation are defined with the operation.
<table>
<thead>
<tr>
<th>Element name</th>
<th>Description</th>
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<tr>
<td>AbsoluteDateTransition</td>
<td>Specifies a time zone transition that occurs on a specified date and at a specified time.</td>
</tr>
<tr>
<td>RecurringDateTransition</td>
<td>Specifies a time zone transition that occurs on a specific recurring date.</td>
</tr>
<tr>
<td>RecurringDayTransition</td>
<td>Specifies a time zone transition that occurs on the same day each year.</td>
</tr>
<tr>
<td>TimeZoneContext</td>
<td>Specifies a time zone definition and enables the association of SOAP attributes with the definition.</td>
</tr>
<tr>
<td>Transition</td>
<td>Specifies the base element for all time zone transition elements.</td>
</tr>
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</table>

### 2.2.3.1 AbsoluteDateTransition Element

The **AbsoluteDateTransition** element specifies a time zone transition that occurs on a specified date and at a specified time.

```xml
<xs:element name="AbsoluteDateTransition"
    type="t:AbsoluteDateTransitionType"
    substitutionGroup="t:Transition"/>
```

### 2.2.3.2 RecurringDateTransition Element

The **RecurringDateTransition** element specifies a time zone transition that occurs on a specific recurring date.

```xml
<xs:element name="RecurringDateTransition"
    type="t:RecurringDateTransitionType"
    substitutionGroup="t:Transition"/>
```

### 2.2.3.3 RecurringDayTransition Element

The **RecurringDayTransition** element specifies a time zone transition that occurs on the same day each year.

```xml
<xs:element name="RecurringDayTransition"
    type="t:RecurringDayTransitionType"
    substitutionGroup="t:Transition"/>
```

### 2.2.3.4 TimeZoneContext Element

The **TimeZoneContext** element specifies a time zone definition and enables the association of SOAP attributes with the definition.

```xml
<xs:element name="TimeZoneContext"
    type="t:TimeZoneContextType"
    substitutionGroup="t:Transition"/>
```
2.2.3.5 Transition Element

The **Transition** element specifies the base element for all time zone transition elements.

```xml
<xs:element name="Transition"
    type="t:TransitionType" />
```

2.2.4 Complex Types

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

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<thead>
<tr>
<th>Complex type name</th>
<th>Description</th>
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</thead>
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<tr>
<td>AbsoluteDateTransitionType</td>
<td>Specifies a time zone transition that occurs on a specific date and at a specific time.</td>
</tr>
<tr>
<td>ArrayOfTimeZoneDefinitionType</td>
<td>Specifies zero or more <strong>TimeZoneDefinitionType</strong> complex type, as specified in section 2.2.4.12, instances.</td>
</tr>
<tr>
<td>ArrayOfTransitionsGroupsType</td>
<td>Specifies an array of transition groups.</td>
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<tr>
<td>ArrayOfTransitionsType</td>
<td>Specifies an array of time zone transitions.</td>
</tr>
<tr>
<td>NonEmptyArrayOfPeriodsType</td>
<td>Specifies an array of <strong>t:PeriodType</strong> complex types that has at least one member.</td>
</tr>
<tr>
<td>NonEmptyArrayOfTimeZoneIdType</td>
<td>Specifies one or more time zone identifiers.</td>
</tr>
<tr>
<td>PeriodType</td>
<td>Specifies the name and offset of a specific time zone.</td>
</tr>
<tr>
<td>RecurringDateTransitionType</td>
<td>Specifies a time zone transition that occurs on a specified day of the year.</td>
</tr>
<tr>
<td>RecurringDayTransitionType</td>
<td>Specifies a time zone transition that occurs on the same weekday each year.</td>
</tr>
<tr>
<td>RecurringTimeTransitionType</td>
<td>Specifies the base class for recurring time zone transitions.</td>
</tr>
<tr>
<td>TimeZoneContextType</td>
<td>Specifies a time zone definition and enables the SOAP protocol attributes to be associated with the definition.</td>
</tr>
<tr>
<td>TimeZoneDefinitionType</td>
<td>Specifies the time periods and transitions that describe a time zone.</td>
</tr>
<tr>
<td>TransitionType</td>
<td>Specifies the base type for all time zone transition complex types.</td>
</tr>
<tr>
<td>TransitionTargetType</td>
<td>Specifies a time zone transition target type.</td>
</tr>
</tbody>
</table>
2.2.4.1  \texttt{t:AbsoluteDateTransitionType} Complex Type

The \texttt{AbsoluteDateTransitionType} complex type specifies a time zone transition that occurs on a specific date and at a specific time.

\[
\begin{xml}
<xs:complexType name="AbsoluteDateTransitionType">
  <xs:complexContent>
    <xs:extension base="t:TransitionType">
      <xs:sequence>
        <xs:element name="DateTime" type="xs:dateTime" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
\end{xml}
\]

The following table lists the child elements of the \texttt{AbsoluteDateTransitionType} complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DateTime</td>
<td>\texttt{xs:dateTime} \texttt{[XMLSCHEMA2]}</td>
<td>Specifies the date and time at which the time zone transition occurs.</td>
</tr>
</tbody>
</table>

2.2.4.2  \texttt{t:ArrayOfTimeZoneDefinitionType} Complex Type

The \texttt{ArrayOfTimeZoneDefinitionType} complex type specifies zero or more \texttt{TimeZoneDefinitionType} complex type, as specified in section 2.2.4.12, instances.

\[
\begin{xml}
<xs:complexType name="ArrayOfTimeZoneDefinitionType">
  <xs:sequence
    maxOccurs="unbounded"
    minOccurs="0" >
    <xs:element name="TimeZoneDefinition" type="t:TimeZoneDefinitionType" />
  </xs:sequence>
</xs:complexType>
\end{xml}
\]

The following table lists the child elements of the \texttt{ArrayOfTimeZoneDefinitionType} complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TimeZoneDefinition</td>
<td>\texttt{t:TimeZoneDefinitionType} (section 2.2.4.12)</td>
<td>Specifies the definition of a time zone.</td>
</tr>
</tbody>
</table>

2.2.4.3  \texttt{t:ArrayOfTransitionsGroupsType} Complex Type

The \texttt{ArrayOfTransitionsGroupsType} complex type specifies an array of transition groups.

\[
\begin{xml}
<xs:complexType name="ArrayOfTransitionsGroupsType">
</xs:complexType>
\end{xml}
\]
The following table lists the child elements of the `ArrayOfTransitionsGroupsType` complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TransitionsGroup</td>
<td>t:ArrayOfTransitionsType (section 2.2.4.4)</td>
<td>Specifies one or more arrays of transitions.</td>
</tr>
</tbody>
</table>

### 2.2.4.4 t:ArrayOfTransitionsType Complex Type

The `ArrayOfTransitionsType` complex type specifies an array of time zone transitions.

```xml
<xs:complexType name="ArrayOfTransitionsType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" ref="t:Transition"/>
  </xs:sequence>
  <xs:attribute name="Id" type="xs:string"/>
</xs:complexType>
```

The following table lists the child elements of the `ArrayOfTransitionsType` complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transition</td>
<td>t:Transition (section 2.2.3.5)</td>
<td>Specifies a descendent of the <code>t:Transition</code> element that describes the time zone transition.</td>
</tr>
</tbody>
</table>

The following table lists the attributes of the `ArrayOfTransitionsType` complex type.

<table>
<thead>
<tr>
<th>Attribute name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>xs:string ([XMLSCHEMA2])</td>
<td>Specifies a unique identifier for the time zone transition.</td>
</tr>
</tbody>
</table>

### 2.2.4.5 t:NonEmptyArrayOfPeriodsType Complex Type

The `NonEmptyArrayOfPeriodsType` complex type specifies an array of `PeriodType` complex types, as specified in section 2.2.4.7, that has at least one member.

```xml
<xs:complexType name="NonEmptyArrayOfPeriodsType">
  <xs:sequence>
  </xs:sequence>
</xs:complexType>
```
The following table lists the child elements of the `NonEmptyArrayOfPeriodsType` complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td><code>t:PeriodType</code> (section 2.2.4.7)</td>
<td>Specifies one or more <code>PeriodType</code> complex types. At least one <code>PeriodType</code> complex type MUST be included.</td>
</tr>
</tbody>
</table>

2.2.4.6 `t:NonEmptyArrayOfTimeZoneIdType` Complex Type

The `NonEmptyArrayOfTimeZoneIdType` complex type specifies one or more time zone identifiers.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td><code>xs:string</code> [XMLSCHEMA2]</td>
<td>Specifies a time zone identifier.</td>
</tr>
</tbody>
</table>

2.2.4.7 `t:PeriodType` Complex Type

The `PeriodType` complex type specifies the name and offset of a specific time zone.
The following table lists the attributes of the **PeriodType** complex type.

<table>
<thead>
<tr>
<th>Attribute name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bias</td>
<td>xs:duration [XMLSCHEMA2]</td>
<td>Specifies the hourly offset from <strong>Coordinated Universal Time (UTC)</strong> for the time zone.</td>
</tr>
<tr>
<td>Name</td>
<td>xs:string [XMLSCHEMA2]</td>
<td>Specifies the descriptive name of the time zone.</td>
</tr>
<tr>
<td>Id</td>
<td>xs:string</td>
<td>Specifies a unique identifier for the time zone period.</td>
</tr>
</tbody>
</table>

### 2.2.4.8 t:RecurringDateTransitionType Complex Type

The *RecurringDateTransitionType* complex type specifies a time zone transition that occurs on a specified day of the year.

```xml
<xs:complexType name="RecurringDateTransitionType">
  <xs:complexContent>
    <xs:extension base="t:RecurringTimeTransitionType">
      <xs:sequence>
        <xs:element name="Day" type="xs:int"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>xs:int [XMLSCHEMA2]</td>
<td>Specifies the day of the year on which the time zone transition occurs.</td>
</tr>
</tbody>
</table>

### 2.2.4.9 t:RecurringDayTransitionType Complex Type

The *RecurringDayTransitionType* complex type specifies a time zone transition that occurs on the same weekday each year.

```xml
<xs:complexType name="RecurringDayTransitionType">
  <xs:complexContent>
    <xs:extension base="t:RecurringTimeTransitionType">
      <xs:sequence>
        <xs:element name="DayOfWeek" type="t:DayOfWeekType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

> [MS-OXWSGTZ] - v20220215
Get Server Time Zone Web Service Protocol
Copyright © 2022 Microsoft Corporation
Release: February 15, 2022
The following table lists the child elements of the `RecurringDayTransitionType` complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DayOfWeek</strong></td>
<td><code>t:DayOfWeekType</code></td>
<td>Specifies the day of the week on which the time zone transition occurs.</td>
</tr>
<tr>
<td><strong>Occurrence</strong></td>
<td><code>xs:int</code></td>
<td>Specifies the occurrence of the day of the week in the month that the transition occurs on.</td>
</tr>
</tbody>
</table>

The value of the **Occurrence** element is interpreted as shown in the following table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The first occurrence of the specified day of the week from the beginning of the month.</td>
</tr>
<tr>
<td>2</td>
<td>The second occurrence of the specified day of the week from the beginning of the month.</td>
</tr>
<tr>
<td>3</td>
<td>The third occurrence of the specified day of the week from the beginning of the month.</td>
</tr>
<tr>
<td>4</td>
<td>The fourth occurrence of the specified day of the week from the beginning of the month.</td>
</tr>
<tr>
<td>-1</td>
<td>The first occurrence of the specified day of the week from the end of the month.</td>
</tr>
<tr>
<td>-2</td>
<td>The second occurrence of the specified day of the week from the end of the month.</td>
</tr>
<tr>
<td>-3</td>
<td>The third occurrence of the specified day of the week from the end of the month.</td>
</tr>
<tr>
<td>-4</td>
<td>The fourth occurrence of the specified day of the week from the end of the month.</td>
</tr>
</tbody>
</table>

### 2.2.4.10  `t:RecurringTimeTransitionType` Complex Type

The `RecurringTimeTransitionType` complex type specifies the base class for recurring time zone transitions.
The following table lists the child elements of the **RecurringTimeTransitionType** complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TimeOffset</td>
<td>xs:duration</td>
<td>Specifies the hourly offset from UTC for the time zone transition.</td>
</tr>
<tr>
<td>Month</td>
<td>xs:int</td>
<td>Specifies the month in which the time zone transition occurs.</td>
</tr>
</tbody>
</table>

### 2.2.4.11 **t:TimeZoneContextType** Complex Type

The **TimeZoneContextType** complex type specifies a time zone definition and enables SOAP protocol attributes to be associated with the definition.

```xml
<xs:complexType name="TimeZoneContextType">
  <xs:sequence>
    <xs:element name="TimeZoneDefinition" type="t:TimeZoneDefinitionType" />
  </xs:sequence>
  <xs:anyAttribute namespace="http://schemas.xmlsoap.org/soap/envelope" />
</xs:complexType>
```

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

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TimeZoneDefinition</td>
<td>t:TimeZoneDefinitionType (section 2.2.4.12)</td>
<td>Specifies the definition of a time zone.</td>
</tr>
</tbody>
</table>

### 2.2.4.12 **t:TimeZoneDefinitionType** Complex Type

The **TimeZoneDefinitionType** complex type specifies the time periods and transitions that describe a time zone.

```xml
<xs:complexType name="TimeZoneDefinitionType">
  <xs:sequence minOccurs="0">
    <xs:element name="Periods" type="t:NonEmptyArrayOfPeriodsType" />
    <xs:element name="TransitionsGroups" type="t:ArrayOfTransitionsGroupsType" minOccurs="0" />
  </xs:sequence>
</xs:complexType>
```
The following table lists the child elements of the *TimeZoneDefinitionType* complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periods</td>
<td>t:NonEmptyArrayOfPeriodsType (section 2.2.4.5)</td>
<td>Specifies the time periods when a time zone is in force.</td>
</tr>
<tr>
<td>TransitionsGroups</td>
<td>t:ArrayOfTransitionsGroupsType (section 2.2.4.3)</td>
<td>Specifies a set of transition groups from one time zone specification to another.</td>
</tr>
<tr>
<td>Transitions</td>
<td>t:ArrayOfTransitionsType (section 2.2.4.4)</td>
<td>Specifies a set of transitions from one time zone specification to another.</td>
</tr>
</tbody>
</table>

The following table lists the attributes of the *TimeZoneDefinitionType* complex type.

<table>
<thead>
<tr>
<th>Attribute name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>xs:string</td>
<td>[XMLSCHEMA2] The unique identifier of the time zone definition.</td>
</tr>
<tr>
<td>Name</td>
<td>xs:string</td>
<td>The descriptive name of the time zone definition.</td>
</tr>
</tbody>
</table>

### 2.2.4.13 t:TransitionType Complex Type

The *TransitionType* complex type is the base type for all time zone transition complex types.

```xml
<xs:complexType name="TransitionType"
    abstract="false">
    <xs:sequence>
        <xs:element name="To"
            type="t:TransitionTargetType"/>
    </xs:sequence>
</xs:complexType>
```

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

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>To</td>
<td>t:TransitionTargetType (section 2.2.4.14)</td>
<td>One of the <em>TransitionTargetType</em> enumeration values that specify whether the time zone transition is a single period or a group of...</td>
</tr>
</tbody>
</table>
2.2.4.14 t:TransitionTargetType Complex Type

The **TransitionTargetType** complex type specifies a time zone transition target type.

```xml
<xs:complexType>
  <xs:simpleContent>
    <xs:extension base="xs:string">
      <xs:attribute name="Kind" type="t:TransitionTargetKindType" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

The following table lists the attributes of the **TransitionTargetType** complex type.

<table>
<thead>
<tr>
<th>Attribute name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kind</td>
<td>t:TransitionTargetKindType (section 3.1.4.1.4.1)</td>
<td>Specifies the target type (period or group of periods) of the transition.</td>
</tr>
</tbody>
</table>

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 that are returned by the transport are passed directly back to the higher-layer protocol or application.

3.1 ExchangeServicePortType Server Details

The Get Server Time Zone Web Service Protocol defines a single port type that enables clients to retrieve the time zone definitions that are used by the server.

3.1.1 Abstract Data Model

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

This protocol is used to retrieve time zone information from the server to provide client applications with the information necessary to translate server time information to the time zones that the client application requires.

The client is not required to maintain the time zones used by the server; instead the client can use this protocol to request time zone information as necessary.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

This protocol includes the operation that is listed in the following table.

<table>
<thead>
<tr>
<th>Operation name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetServerTimeZones</td>
<td>Gets the time zones that are supported by the server.</td>
</tr>
</tbody>
</table>

3.1.4.1 GetServerTimeZones

The **GetServerTimeZones** operation gets time zone definitions from the server.

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

```xml
<wsdl:operation name="GetServerTimeZones">
  <wsdl:input message="tns:GetServerTimeZonesSoapIn" />
  <wsdl:output message="tns:GetServerTimeZonesSoapOut" />
```
The following is the WSDL binding specification of the operation.

```xml
<wsdl:operation name="GetServerTimeZones">
  <soap:operation
  <wsdl:input>
    <soap:header message="tns:GetServerTimeZonesSoapIn" part="MailboxCulture" use="literal" />
    <soap:header message="tns:GetServerTimeZonesSoapIn" part="RequestVersion" use="literal" />
    <soap:body parts="request" use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap:body parts="GetServerTimeZonesResult" use="literal" />
    <soap:header message="tns:GetServerTimeZonesSoapOut" part="ServerVersion" use="literal" />
  </wsdl:output>
</wsdl:operation>
```

### 3.1.4.1.1 Messages

The following table lists the WSDL message definitions that are specific to this operation.

<table>
<thead>
<tr>
<th>Message name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetServerTimeZonesSoapIn</td>
<td>Specifies the SOAP message that requests time zone information from the server.</td>
</tr>
<tr>
<td>GetServerTimeZonesSoapOut</td>
<td>Specifies the SOAP message that is returned by the server in response.</td>
</tr>
</tbody>
</table>

#### 3.1.4.1.1.1 tns:GetServerTimeZonesSoapIn

The GetServerTimeZonesSoapIn WSDL message specifies the GetServerTimeZones operation request to get a time zone or list of time zones supported by the server.

```xml
<wsdl:message name="GetServerTimeZonesSoapIn">
  <wsdl:part name="request" element="tns:GetServerTimeZones" />
  <wsdl:part name="MailboxCulture" element="t:MailboxCulture"/>  
  <wsdl:part name="RequestVersion" element="t:RequestServerVersion"/>  
</wsdl:message>
```

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

The GetServerTimeZonesSoapIn WSDL message contains three parts, as described in the following table.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>request</td>
<td>tns:GetServerTimeZones (section 3.1.4.1.2.1)</td>
<td>Specifies the SOAP body of the request.</td>
</tr>
<tr>
<td>MailboxCulture</td>
<td>t:MailboxCulture [MS-OXWSCDATA] section 2.2.3.6</td>
<td>Specifies a SOAP header that identifies the culture to use for accessing the server. The cultures are defined</td>
</tr>
</tbody>
</table>
### 3.1.4.1.2 \texttt{tns:GetServerTimeZonesSoapOut}

The \texttt{GetServerTimeZonesSoapOut} WSDL message specifies the server response to the \texttt{GetServerTimeZones} operation request to retrieve time zone information from the server.

```xml
<wSDL:message name="GetServerTimeZonesSoapOut">
  <wSDL:part name="GetServerTimeZonesResult" element="tns:GetServerTimeZonesResponse" />
  <wSDL:part name="ServerVersion" element="t:ServerVersionInfo"/>
</wSDL:message>
```

The \texttt{GetServerTimeZonesSoapOut} WSDL message is the output message for the SOAP action 

The \texttt{GetServerTimeZonesSoapOut} WSDL message contains two parts, as described in the following table.

<table>
<thead>
<tr>
<th>Part name</th>
<th>Element/type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetServerTimeZonesResult</td>
<td>\texttt{tns:GetServerTimeZonesResponse} [section 3.1.4.1.3.2]</td>
<td>Specifies the SOAP body of the response.</td>
</tr>
<tr>
<td>ServerVersion</td>
<td>\texttt{t:ServerVersionInfo} ([\text{MS-OXWSCDATA}]) section 2.2.3.10</td>
<td>Specifies a SOAP header that identifies the server version for the response.</td>
</tr>
</tbody>
</table>

A successful \texttt{GetServerTimeZones} request, as specified in section 3.1.4.1.2.1, returns a \texttt{GetServerTimeZonesResponse} element, as specified in section 3.1.4.1.2.2, with the \texttt{ResponseClass} attribute set to "Success". The \texttt{ResponseCode} element of the \texttt{GetServerTimeZonesResponse} element is set to "NoError".

If the \texttt{GetServerTimeZones} request is not successful, it returns a \texttt{GetServerTimeZonesResponse} element with the \texttt{ResponseClass} attribute set to "Error". The \texttt{ResponseCode} element of the \texttt{GetServerTimeZonesResponse} element is set to one of the common errors defined in \([\text{MS-OXWSCDATA}]\) section 2.2.5.24.

### 3.1.4.1.2 Elements

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

<table>
<thead>
<tr>
<th>Element name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>\texttt{GetServerTimeZones}</td>
<td>Specifies the base element for the \texttt{GetServerTimeZones} operation.</td>
</tr>
<tr>
<td>\texttt{GetServerTimeZonesResponse}</td>
<td>Specifies the response from the \texttt{GetServerTimeZones} operation.</td>
</tr>
</tbody>
</table>

### 3.1.4.1.2.1 \texttt{GetServerTimeZones} Element
The **GetServerTimeZones** element specifies the base element for a **GetServerTimeZones** operation.

```xml
<xs:element name="GetServerTimeZones"
    type="m:GetServerTimeZonesType"/>
```

### 3.1.4.1.2.2 GetServerTimeZonesResponse Element

The **GetServerTimeZonesResponse** element specifies the response message for a **GetServerTimeZones** operation.

```xml
<xs:element name="GetServerTimeZonesResponse"
    type="m:GetServerTimeZonesResponseType"/>
```

### 3.1.4.1.3 Complex Types

The following table lists the **XML schema** complex type definitions are specific to this operation.

<table>
<thead>
<tr>
<th>Complex type name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GetServerTimeZonesResponseMessageType</td>
<td>Specifies the response message that is returned by the GetServerTimeZones operation.</td>
</tr>
<tr>
<td>GetServerTimeZonesResponseType</td>
<td>Specifies the response that is returned by the GetServerTimeZones operation.</td>
</tr>
<tr>
<td>GetServerTimeZonesType</td>
<td>Specifies the request message that is sent to the GetServerTimeZones operation.</td>
</tr>
</tbody>
</table>

#### 3.1.4.1.3.1 m:GetServerTimeZonesResponseMessageType Complex Type

The **GetServerTimeZonesResponseMessageType** complex type specifies the response that is returned by the **GetServerTimeZones** operation. The **GetServerTimeZonesResponseMessageType** complex type extends the **ResponseMessageType** complex type, as specified in [MS-OXWSCDATA] section 2.2.4.67.

```xml
<xs:complexType name="GetServerTimeZonesResponseMessageType">
    <xs:complexContent>
        <xs:extension base="m:ResponseMessageType">
            <xs:sequence>
                <xs:element name="TimeZoneDefinitions"
                    type="t:ArrayOfTimeZoneDefinitionType"
                    minOccurs="1"/>
            </xs:sequence>
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
```

The following table lists the child elements of the **GetServerTimeZonesResponseMessageType** complex type.
**Element name** | **Type** | **Description**
---|---|---
TimeZoneDefinitions | t:ArrayOfTimeZoneDefinitionType (section 2.2.4.2) | Specifies one or more time zone definitions.

### 3.1.4.1.3.2 m:GetServerTimeZonesResponseType Complex Type

The `GetServerTimeZonesResponseType` complex type extends the `BaseResponseMessageType` complex type, as specified in [MS-OXWSCDATA] section 2.2.4.18.

```xml
<xs:complexType name="GetServerTimeZonesResponseType">
  <xs:complexContent>
    <xs:extension base="m:BaseResponseMessageType"/>
  </xs:complexContent>
</xs:complexType>
```

### 3.1.4.1.3.3 m:GetServerTimeZonesType Complex Type

The `GetServerTimeZonesType` complex type specifies the requested server time zones or specifies that all server time zones are to be returned. It optionally specifies whether full time zone information is returned, or whether only time zone name and identifiers are returned. The `GetServerTimeZonesType` complex type extends the `BaseRequestType` complex type, as specified in [MS-OXWSCDATA] section 2.2.4.17.

```xml
<xs:complexType name="GetServerTimeZonesType">
  <xs:complexContent>
    <xs:extension base="m:BaseRequestType">
      <xs:sequence>
        <xs:element name="Ids" type="t:NonEmptyArrayOfTimeZoneIdType" minOccurs="0"/>
      </xs:sequence>
      <xs:attribute name="ReturnFullTimeZoneData" type="xs:boolean" use="optional"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

The following table lists the child elements of the `GetServerTimeZonesType` complex type.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ids</td>
<td>t:NonEmptyArrayOfTimeZoneIdType (section 2.2.4.6)</td>
<td>Specifies a list of time zone identifiers for which the time zone definitions are returned. The server returns information for all valid identifiers. If an identifier is included that is not recognized by the server, the server does not return any information for the unrecognized identifier and does not report an error. This element is</td>
</tr>
</tbody>
</table>
The following table lists the attributes of the `GetServerTimeZonesType` complex type.

<table>
<thead>
<tr>
<th>Attribute name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReturnFullTimeZoneData</td>
<td>xs:boolean</td>
<td>Specifies whether the <code>GetServerTimeZones</code> operation returns the complete time zone definition or returns only time zone name and identifiers. This attribute is optional. If it is not included, complete time zone information is returned.</td>
</tr>
</tbody>
</table>

### 3.1.4.1.4 Simple Types

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

<table>
<thead>
<tr>
<th>Simple type name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TransitionTargetKindType</td>
<td>Specifies whether a time zone transition is a single period or a group of time zone periods.</td>
</tr>
</tbody>
</table>

#### 3.1.4.1.4.1 `t:TransitionTargetKindType` Simple Type

The `TransitionTargetKindType` simple type specifies whether a time zone transition is a single period or a group of time zone periods.

```xml
<xs:simpleType name="TransitionTargetKindType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Period"/>
    <xs:enumeration value="Group"/>
  </xs:restriction>
</xs:simpleType>
```

The following values are defined by the `TransitionTargetKindType` simple type.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>Specifies that the time zone transition target is a single period.</td>
</tr>
<tr>
<td>Group</td>
<td>Specifies that the time zone transition target is a group of time zone periods.</td>
</tr>
</tbody>
</table>

### 3.1.4.1.5 Attributes
None.

### 3.1.4.1.6 Groups

None.

### 3.1.4.1.7 Attribute Groups

None.

### 3.1.5 Timer Events

None.

### 3.1.6 Other Local Events

None.
4 Protocol Examples

Clients use the **GetServerTimeZones** operation, as described in section 3.1.4.1, to request the list of time zones for which the server has definitions and then use this information when making requests to other web service protocols or to present time-based information to the user.

The following XML shows a request to retrieve time zones for Alaska Standard Time. The value of the **ReturnFullTimeZoneData** attribute indicates that all data is to be returned, as described in section 3.1.4.1.3.3.

```xml
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/
 xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
> <soap:Header>
  <t:RequestServerVersion Version="Exchange2013"/>
</soap:Header>
<soap:Body xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
  <GetServerTimeZones ReturnFullTimeZoneData="true">
    <Ids>
      <Id xmlns="http://schemas.microsoft.com/exchange/services/2006/types">
        Alaskan Standard Time</Id>
    </Ids>
  </GetServerTimeZones>
</soap:Body>
</soap:Envelope>
```

The following XML shows a successful response to the preceding **GetServerTimeZones** operation request.

```xml
<?xml version="1.0" encoding="utf-8"?>
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
  <s:Header>
    <h:ServerVersionInfo MajorVersion="15" MinorVersion="0" MajorBuildNumber="698" MinorBuildNumber="10" Version="Exchange2013"
       xmlns:h="http://schemas.microsoft.com/exchange/services/2006/types"
      xmlns:xsd="http://www.w3.org/2001/XMLSchema"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  </s:Header>
  <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
     xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <m:GetServerTimeZonesResponse xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
       xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types">
      <m:ResponseMessages>
        <m:GetServerTimeZonesResponseMessage ResponseClass="Success">
          <m:ResponseCode>NoError</m:ResponseCode>
          <m:TimeZoneDefinitions>
            <t:TimeZoneDefinition Name="(UTC-09:00) Alaska" Id="Alaskan Standard Time">
              <t:Periods>
                <t:Period Bias="PT9H" Name="Standard" Id="true:Microsoft/Registry/Alaskan Standard Time/2006-Standard"/>
                <t:Period Bias="PT8H" Name="Daylight" Id="true:Microsoft/Registry/Alaskan Standard Time/2006-Daylight"/>
              </t:Periods>
              <t:TransitionsGroups>
                <t:TransitionsGroup Id="0">
                  <t:RecurringDayTransition>
```

[MS-OXWSGTZ] - v20220215
Get Server Time Zone Web Service Protocol
Copyright © 2022 Microsoft Corporation
Release: February 15, 2022
<t:To Kind="Period">trule:Microsoft/Registry/Alaskan Standard Time/2006-Daylight</t:To>
<t:TimeOffset>PT2H</t:TimeOffset>
<t:Month>4</t:Month>
<t:DayOfWeek>Sunday</t:DayOfWeek>
<t:Occurrence>1</t:Occurrence>
</t:RecurringDayTransition>
<t:RecurringDayTransition>
<t:To Kind="Period">trule:Microsoft/Registry/Alaskan Standard Time/2006-Standard</t:To>
<t:TimeOffset>PT2H</t:TimeOffset>
<t:Month>10</t:Month>
<t:DayOfWeek>Sunday</t:DayOfWeek>
<t:Occurrence>-1</t:Occurrence>
</t:RecurringDayTransition>
</t:TransitionsGroup>
<t:TransitionsGroup Id="1">
<t:RecurringDayTransition>
<t:To Kind="Period">trule:Microsoft/Registry/Alaskan Standard Time/2007-Daylight</t:To>
<t:TimeOffset>PT2H</t:TimeOffset>
<t:Month>3</t:Month>
<t:DayOfWeek>Sunday</t:DayOfWeek>
<t:Occurrence>2</t:Occurrence>
</t:RecurringDayTransition>
<t:RecurringDayTransition>
<t:To Kind="Period">trule:Microsoft/Registry/Alaskan Standard Time/2007-Standard</t:To>
<t:TimeOffset>PT2H</t:TimeOffset>
<t:Month>11</t:Month>
<t:DayOfWeek>Sunday</t:DayOfWeek>
<t:Occurrence>1</t:Occurrence>
</t:RecurringDayTransition>
</t:TransitionsGroup>
</t:Transitions>
</m:TimeZoneDefinition>
</m:TimeZoneDefinitions>
</m:GetServerTimeZonesResponseMessage>
</m:ResponseMessages>
</m:GetServerTimeZonesResponse>
</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

The XML files that are listed in the following table are required in order to implement the functionality specified in this document. The contents of each file are included in this section.

<table>
<thead>
<tr>
<th>File name</th>
<th>Description</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-OXWSGTZ.wsdl</td>
<td>Contains the WSDL for the implementation of this protocol.</td>
<td>6</td>
</tr>
<tr>
<td>MS-OXWSGTZ-messages.xsd</td>
<td>Contains the XML schema message definitions that are used in this protocol.</td>
<td>7.1</td>
</tr>
<tr>
<td>MS-OXWSGTZ-types.xsd</td>
<td>Contains the XML schema type definitions that are used in this protocol.</td>
<td>7.2</td>
</tr>
</tbody>
</table>

These files have to be placed in a common folder in order for the WSDL to validate and operate. Also, any schema files that are included in or imported into the MS-OXWSGTZ-types.xsd or MS-OXWSGTZ-messages.xsd schemas have to be placed in the common folder with the files.

This section contains the contents of the MS-OXWSGTZ.wsdl file.

```xml
<?xml version="1.0" encoding="utf-8"?>
<wSDL:definitions xmlns:soap="http://schemas.xmlsoap.org/wssdl/soap/"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:wSDL="http://schemas.xmlsoap.org/wssdl/"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
    <wSDL:types>
        <xs:schema id="messages" elementFormDefault="qualified" version="Exchange2016"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:xmns="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
            <xs:include schemaLocation="MS-OXWSGTZ-messages.xsd"/>
            <!-- Add global elements and types from messages.xsd -->
        </xs:schema>
        <xs:schema id="types" elementFormDefault="qualified" version="Exchange2016"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xmns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xmns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages">
            <xs:include schemaLocation="MS-OXWSGTZ-types.xsd"/>  
            <!-- Add global elements and types from types.xsd -->
        </xs:schema>
    </wSDL:types>
    <wSDL:message name="GetServerTimeZonesSoapIn">
        <wSDL:part name="request" element="tns:GetServerTimeZones"/>
        <wSDL:part name="MailboxCulture" element="t:MailboxCulture"/>
        <wSDL:part name="RequestVersion" element="t:RequestServerVersion"/>
    </wSDL:message>
    <wSDL:message name="GetServerTimeZonesSoapOut">
        <wSDL:part name="GetServerTimeZonesResponse" element="tns:GetServerTimeZonesResponse"/>
        <wSDL:part name="ServerVersion" element="t:ServerVersionInfo"/>  
    </wSDL:message>
    <wSDL:portType name="ExchangeServicePortType">
        <wSDL:operation name="GetServerTimeZones">
            <wSDL:input message="tns:GetServerTimeZonesSoapIn"/>
            <wSDL:output message="tns:GetServerTimeZonesSoapOut"/>
        </wSDL:operation>
    </wSDL:portType>
</wSDL:bindings>  
</wSDL:definitions>
```
<wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0" xmlns:wsi="http://wsi.org/schemas/conformanceClaim"/>
</wsdl:documentation>
<soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
<wsdl:operation name="GetServerTimeZones">
  <wsdl:input>
    <soap:header message="tns:GetServerTimeZonesSoapIn" part="MailboxCulture" use="literal"/>
    <soap:header message="tns:GetServerTimeZonesSoapIn" part="RequestVersion" use="literal"/>
    <soap:body parts="request" use="literal"/>
  </wsdl:input>
  <wsdl:output>
    <soap:body parts="GetServerTimeZonesResult" use="literal"/>
    <soap:header message="tns:GetServerTimeZonesSoapOut" part="ServerVersion" use="literal"/>
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
</wsdl:definitions>
7 Appendix B: Full XML Schema

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

<table>
<thead>
<tr>
<th>Schema name</th>
<th>Prefix</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Messages schema</td>
<td>m:</td>
<td>7.1</td>
</tr>
<tr>
<td>Types schema</td>
<td>p:</td>
<td>7.2</td>
</tr>
</tbody>
</table>

These files have to be placed in a common folder in order for the WSDL to validate and operate. Also, any schema files that are included in or imported into the MS-OXWSGTZ-types.xsd or MS-OXWSGTZ-messages.xsd schemas have to be placed in the common folder along with the files listed in the table.

7.1 Messages Schema

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

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

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

```xml
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:m="http://schemas.microsoft.com/exchange/services/2006/messages"
  xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
  xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="http://schemas.microsoft.com/exchange/services/2006/messages"
  elementFormDefault="qualified" version="Exchange2016" id="messages">
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
    schemaLocation="MS-OXWSGTZ-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSGTZ-messages.xsd" />
  <xs:complexType name="GetServerTimeZonesType">
    <xs:complexContent>
      <xs:extension base="m:BaseRequestType">
        <xs:sequence>
          <xs:element name="Ids" type="t:NonEmptyArrayOfTimeZoneIdType" minOccurs="0"/>
        </xs:sequence>
        <xs:attribute name="ReturnFullTimeZoneData" type="xs:boolean" use="optional"/>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:element name="GetServerTimeZones" type="m:GetServerTimeZonesType"/>
  <xs:complexType name="GetServerTimeZonesResponseMessageType">
    <xs:complexContent>
      <xs:extension base="m:ResponseMessageType">
        <xs:sequence>
          <xs:element name="TimeZoneDefinitions" type="t:ArrayOfTimeZoneDefinitionType"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
</xs:schema>
```
7.2 Types Schema

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

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

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

```xml
<?xml version="1.0" encoding="utf-8"?>
  <xs:include schemaLocation="MS-OXWSCDATA-types.xsd"/>
  <xs:element name="AbsoluteDateTransition" type="t:AbsoluteDateTransitionType" substitutionGroup="t:Transition"/>
  <xs:complexType name="AbsoluteDateTransitionType">
    <xs:complexContent>
      <xs:extension base="t:TransitionType">
        <xs:sequence>
          <xs:element name="DateTime" type="xs:dateTime"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
  <xs:complexType name="ArrayOfTimeZoneDefinitionType">
    <xs:sequence minOccurs="0" maxOccurs="unbounded">
      <xs:element name="TimeZoneDefinition" type="t:TimeZoneDefinitionType"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfTransitionsGroupsType">
    <xs:sequence>
      <xs:element name="TransitionsGroup" type="t:ArrayOfTransitionsType" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="ArrayOfTransitionsType">
    <xs:sequence>
      <xs:element ref="t:Transition" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfPeriodsType">
    <xs:sequence>
      <xs:element name="Period" type="t:PeriodType" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="NonEmptyArrayOfTimeZoneIdType">
    <xs:sequence>
      <xs:element name="Id" type="xs:string" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```
<xs:complexType name="PeriodType">
  <xs:attribute name="Bias" type="xs:duration"/>
  <xs:attribute name="Name" type="xs:string"/>
  <xs:attribute name="Id" type="xs:string"/>
</xs:complexType>

<xs:element name="RecurringDayTransition" type="t:RecurringDayTransitionType" substitutionGroup="t:Transition"/>
<xs:element name="RecurringDateTransition" type="t:RecurringDateTransitionType" substitutionGroup="t:Transition"/>
<xs:complexType name="RecurringDateTransitionType">
  <xs:complexContent>
    <xs:extension base="t:RecurringTimeTransitionType">
      <xs:sequence>
        <xs:element name="Day" type="xs:int"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="RecurringDayTransitionType">
  <xs:complexContent>
    <xs:extension base="t:RecurringTimeTransitionType">
      <xs:sequence>
        <xs:element name="DayOfWeek" type="t:DayOfWeekType"/>
        <xs:element name="Occurrence" type="xs:int"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="RecurringTimeTransitionType" abstract="true">
  <xs:complexContent>
    <xs:extension base="t:TransitionType">
      <xs:sequence>
        <xs:element name="TimeOffset" type="xs:duration"/>
        <xs:element name="Month" type="xs:int"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:complexType name="TimeZoneContextType">
  <xs:sequence>
    <xs:element name="TimeZoneDefinition" type="t:TimeZoneDefinitionType"/>
  </xs:sequence>
  <xs:anyAttribute namespace="http://schemas.xmlsoap.org/soap/envelope/"/>
</xs:complexType>
<xs:element name="TimeZoneContext" type="t:TimeZoneContextType"/>
<xs:complexType name="TimeZoneDefinitionType">
  <xs:sequence minOccurs="0">
    <xs:element name="Periods" type="t:NonEmptyArrayOfPeriodsType"/>
    <xs:element name="TransitionsGroups" type="t:ArrayOfTransitionsGroupsType" minOccurs="0"/>
    <xs:element name="Transitions" type="t:ArrayOfTransitionsType" minOccurs="0"/>
  </xs:sequence>
  <xs:attribute name="Id" type="xs:string"/>
  <xs:attribute name="Name" type="xs:string"/>
</xs:complexType>
<xs:simpleType name="TransitionTargetKindType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Period"/>
    <xs:enumeration value="Group"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="TransitionTargetType">
  <xs:simpleContent>
    <xs:extension base="xs:string">
      <xs:attribute name="Kind" type="t:TransitionTargetKindType" use="required"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
8 Appendix C: Product Behavior

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

- Microsoft Exchange Server 2010
- Microsoft Exchange Server 2013
- Microsoft Exchange Server 2016
- Microsoft Exchange Server 2019

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms "SHOULD" or "SHOULD NOT" implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term "MAY" implies that the product does not follow the prescription.
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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  t:ArrayOfTimeZoneDefinitionType Complex Type 14
  t:ArrayOfTransitionsGroupsType Complex Type 15
  t:ArrayOfTransitionsType Complex Type 15
  t:NonEmptyArrayOfPeriodsType Complex Type 15
  t:NonEmptyArrayOfTimeZoneIdType Complex Type 16
  t:PeriodType Complex Type 16
  t:RecurringDateTransitionType Complex Type 17
  t:RecurringDayTransitionType Complex Type 17
  t:RecurringTimeTransitionType Complex Type 18
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  t:TimeZoneDefinitionType Complex Type 19
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  t:TransitionType Complex Type 20

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  t:ArrayOfTimeZoneDefinitionType Complex Type complex type 14
  t:ArrayOfTransitionsGroupsType Complex Type complex type 14
  t:ArrayOfTransitionsType Complex Type complex type 15
  t:NonEmptyArrayOfPeriodsType Complex Type complex type 15
  t:NonEmptyArrayOfTimeZoneIdType Complex Type complex type 16
  t:PeriodType Complex Type complex type 16
  t:RecurringDateTransitionType Complex Type complex type 17
  t:RecurringDayTransitionType Complex Type complex type 17
  t:RecurringTimeTransitionType Complex Type complex type 18
  t:TimeZoneContextType Complex Type complex type 19
  t:TimeZoneDefinitionType Complex Type complex type 19
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  t:TransitionType Complex Type complex type 20

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