

# [MS-OXWSGTZ]: Get Server Time Zone Web Service Protocol Specification

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## Revision Summary

Date	Revision History	Revision Class	Comments
07/15/2009	1.0	Major	Initial Availability.

PRELIMINARY

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# 1 Introduction

This document specifies the Get Server Time Zone Web Service protocol, which is responsible for returning time zone information that is used by the server. Clients use the SOAP protocol [\[SOAP1.1\]](#) to contact the get server time zone service.

## 1.1 Glossary

The following terms are defined in [\[MS-OXGLOS\]](#):

**Hypertext Transfer Protocol (HTTP)**  
**Hypertext Transfer Protocol over Secure Socket Layers (HTTPS)**  
**SOAP body**  
**SOAP fault**  
**Web Services Description Language (WSDL)**  
**WSDL message**  
**XML**  
**XML Schema**

## 1.2 References

### 1.2.1 Normative References

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

[MS-OXGLOS] Microsoft Corporation, "[Exchange Server Protocols Master Glossary](#)", June 2008.

[MS-OXWSCDATA] Microsoft Corporation, "[Common Web Service Data Types Specification](#)", July 2009.

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

[RFC2396] Berners-Lee, T., Fielding, R., and Masinter, L., "Uniform Resource Identifiers (URI): Generic Syntax", RFC 2396, August 1998, <http://www.ietf.org/rfc/rfc2396.txt>.

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

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

[RFC3066] Alvestrand, H., "Tags for the Identification of Languages", RFC 3066, January 2001, <http://www.ietf.org/rfc/rfc3066.txt>.

[SOAP1.1] Box, D., 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>.

[XMLNS] World Wide Web Consortium, "Namespaces in XML 1.0 (Second Edition)", August 2006, <http://www.w3.org/TR/REC-xml-names/>.

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

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

[MS-OXWSATT] Microsoft Corporation, "[Attachment Handling Web Service Protocol Specification](#)", July 2009.

[MS-OXWSCDATA] Microsoft Corporation, "[Common Web Service Data Types Specification](#)", July 2009.

[MS-OXWSCONT] Microsoft Corporation, "[Contacts Web Service Protocol Specification](#)", July 2009.

[MS-OXWDLIST] Microsoft Corporation, "Distribution List Creation and Usage Web Service Protocol Specification", July, 2009.

[MS-OXWSMSG] Microsoft Corporation, "[E-Mail Message Types Web Service Protocol Specification](#)", July 2009.

[MS-OXWSMSHR] Microsoft Corporation, "Folder Sharing Web Service Protocol Specification", July, 2009.

[MS-OXWSMTGS] Microsoft Corporation, "[Calendaring Web Service Protocol Specification](#)", July 2009.

[MS-OXWSPOST] Microsoft Corporation, "[Post Items Web Service Protocol Specification](#)", July 2009.

[MS-OXWSSRCH] Microsoft Corporation, "[Mailbox Search Web Service Protocol Specification](#)", July 2009.

[MS-OXWSSYNC] Microsoft Corporation, "[Mailbox Contents Synchronization Web Service Protocol Specification](#)", July 2009.

[MS-OXWSTASK] Microsoft Corporation, "[Tasks Web Service Protocol Specification](#)", July 2009.

### 1.2.2 Informative References

[MS-OXWSATT] Microsoft Corporation, "[Attachment Handling Web Service Protocol Specification](#)", July 2009.

[MS-OXWSCONT] Microsoft Corporation, "[Contacts Web Service Protocol Specification](#)", July 2009.

[MS-OXWSDLIST] Microsoft Corporation, "[Distribution List Creation and Usage Web Service Protocol Specification](#)", July 2009.

[MS-OXWSMSG] Microsoft Corporation, "[E-Mail Message Types Web Service Protocol Specification](#)", July 2009.

[MS-OXWSMTGS] Microsoft Corporation, "[Calendaring Web Service Protocol Specification](#)", July 2009.

[MS-OXWSPOST] Microsoft Corporation, "[Post Items Web Service Protocol Specification](#)", July 2009.

[MS-OXWSSRCH] Microsoft Corporation, "[Mailbox Search Web Service Protocol Specification](#)", July 2009.

[MS-OXWSSYNC] Microsoft Corporation, "[Mailbox Contents Synchronization Web Service Protocol Specification](#)", July 2009.

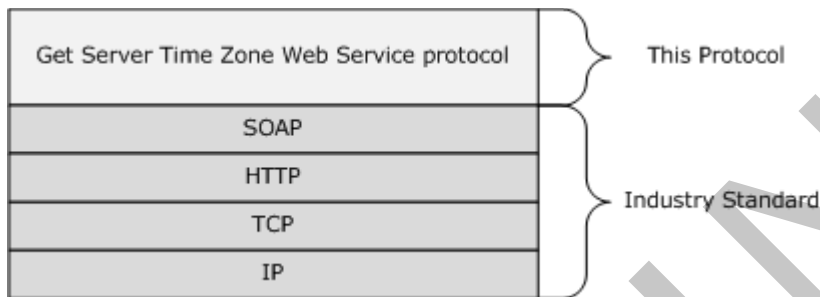
[MS-OXWSTASK] Microsoft Corporation, "[Tasks Web Service Protocol Specification](#)", July 2009.

### 1.3 Protocol 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.

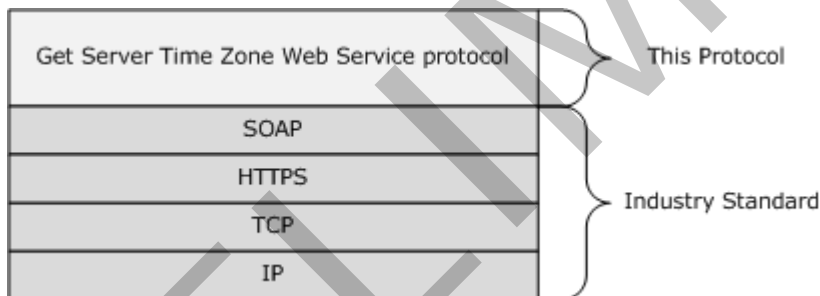
### 1.4 Relationship to Other Protocols

The Get Server Time Zone Web Service protocol uses SOAP over **HTTP**, as shown in the following figure.



**Figure 1: Get Server Time Zone Web Service protocol HTTP stack**

The Get Server Time Zone Web Service protocol uses SOAP over **HTTPS**, as shown in the following figure.



**Figure 2: Get Server Time Zone Web Service protocol HTTPS stack**

The time zone information that is returned by the Get Server Time Zone Web Service protocol is used when requests are made by using the following protocols:

- Attachment Handling Web Service protocol [\[MS-OXWSATT\]](#)
- Contacts Web Service protocol [\[MS-OXWSCONT\]](#)
- Distribution List Creation and Usage Web Service protocol [\[MS-OXWSDLIST\]](#)
- E-Mail Message Types Web Service protocol [\[MS-OXWMSG\]](#)

- Calendaring Web Service protocol [\[MS-OXWSMTGS\]](#)
- Post Items Web Service protocol [\[MS-OXWSPOST\]](#)
- Mailbox Search Web Service protocol [\[MS-OXWSSRCH\]](#)
- Mailbox Contents Synchronization Web Service protocol [\[MS-OXWSSYNC\]](#)
- Tasks Web Service protocol [\[MS-OXWSTASK\]](#)

## 1.5 Prerequisites/Preconditions

None.

## 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.

**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

### 2.1 Transport

The SOAP version supported is SOAP 1.1. For details, see [\[SOAP1.1\]](#).

### 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.

Prefix	Namespace URI	Reference
soap	<a href="http://schemas.xmlsoap.org/wsdl/soap/">http://schemas.xmlsoap.org/wsdl/soap/</a>	<a href="#">[SOAP1.1]</a>
tns	<a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a>	[MS-OXWSGTZ]
s	<a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>	<a href="#">[XMLSCHEMA1]</a>
targetNamespace	<a href="http://schemas.microsoft.com/exchange/services/2006/messages">http://schemas.microsoft.com/exchange/services/2006/messages</a>	[MS-OXWSGTZ]
wsdl	<a href="http://schemas.xmlsoap.org/wsdl/">http://schemas.xmlsoap.org/wsdl/</a>	<a href="#">[WSDL]</a>
t	<a href="http://schemas.microsoft.com/exchange/services/2006/types">http://schemas.microsoft.com/exchange/services/2006/types</a>	[MS-OXWSGTZ]

#### 2.2.2 Simple Types

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

#### 2.2.3 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.

Complex Type	Description
<a href="#">t:AbsoluteDateTransitionType</a>	Specifies a time zone transition that occurs on a specific date and at a specific time.
<a href="#">t:ArrayOfTransitionsGroupsType</a>	Specifies an array of transition groups.
<a href="#">t:ArrayOfTransitionsType</a>	Specifies an array of time zone transitions.
<a href="#">t:NonEmptyArrayOfPeriodsType</a>	Specifies an array of <a href="#">t:PeriodType</a> complex types that has at least one member.

Complex Type	Description
<a href="#">t:PeriodType</a>	Specifies the name and offset of a specific time zone.
<a href="#">t:RecurringDateTransitionType</a>	Specifies a time zone transition that occurs on a specified day of the year.
<a href="#">t:RecurringDayTransitionType</a>	Specifies a time zone transition that occurs on the same weekday each year.
<a href="#">t:RecurringTimeTransitionType</a>	Specifies the base class for recurring time zone transitions.
<a href="#">t:TimeZoneContextType</a>	Specifies a time zone definition and enables the SOAP protocol attributes to be associated with the definition.
<a href="#">t:TimeZoneDefinitionType</a>	Specifies the time periods and transitions that describe a time zone.
<a href="#">t:TransitionType</a>	Specifies the base type for all time zone transition complex types.
<a href="#">t:TransitionTargetType</a>	Specifies a time zone transition target type.

### 2.2.3.1 t:AbsoluteDateTransitionType Complex Type

The [AbsoluteDateTransitionType](#) complex type specifies a time zone transition that occurs on a specific date and at a specific time.

```
<xs:complexType name="AbsoluteDateTransitionType">
  <xs:complexContent>
    <xs:restriction
      base="t:TransitionType"
    >
      <xs:sequence>
        <xs:element name="DateTime"
          type="xs:dateTime"
        />
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

#### Child Elements

Element	Type	Description
DateTime	xs:dateTime	Specifies the date and time at which the time zone transition occurs.

### 2.2.3.2 t:ArrayOfTimeZoneDefinitionType Complex Type

The [ArrayOfTimeZoneDefinitionType](#) complex type specifies zero or more [TimeZoneDefinitionType](#) instances.

```
<xs:complexType name="ArrayOfTimeZoneDefinitionType">
  <xs:sequence
    maxOccurs="unbounded"
    minOccurs="0"
  >

```

```

    >
    <xs:element name="TimeZoneDefinition"
      type="t:TimeZoneDefinitionType"
    />
  </xs:sequence>
</xs:complexType>

```

#### Child Elements

Element	Type	Description
TimeZoneDefinition	<a href="#">t:TimeZoneDefinitionType</a>	Specifies the definition of a time zone.

### 2.2.3.3 t:ArrayOfTransitionsGroupsType Complex Type

The [ArrayOfTransitionsGroupsType](#) complex type specifies an array of transition groups.

```

<xs:complexType name="ArrayOfTransitionsGroupsType">
  <xs:sequence>
    <xs:element name="TransitionsGroup"
      type="t:ArrayOfTransitionsType"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>

```

#### Child Elements

Element	Type	Description
TransitionsGroup	<a href="#">t:ArrayOfTransitionsType</a>	Specifies one or more arrays of transitions.

### 2.2.3.4 t:ArrayOfTransitionsType Complex Type

The [ArrayOfTransitionsType](#) complex type specifies an array of time zone transitions.

```

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

```

#### Child Elements

Element	Type	Description
<b>t:Transition</b>	<b>t:Transition</b>	Specifies a descendent of the <a href="#">t:Transition</a> element (section ) that describes the time zone transition.

Attributes

Name	Type	Description
Id	xs:string	Specifies a unique identifier for the time zone transition.

### 2.2.3.5 t:NonEmptyArrayOfPeriodsType Complex Type

The [NonEmptyArrayOfPeriodsType](#) complex type specifies an array of [t:PeriodType](#) complex types (section [2.2.3.7](#)) that has at least one member.

```
<xs:complexType name="NonEmptyArrayOfPeriodsType">
  <xs:sequence>
    <xs:element name="Period"
      type="t:PeriodType"
      maxOccurs="unbounded"
    />
  </xs:sequence>
</xs:complexType>
```

Child Elements

Element	Type	Description
Period	<b>t:PeriodType</b>	Specifies one or more <a href="#">t:PeriodType</a> complex types (section <a href="#">2.2.3.7</a> ). At least one <b>t:PeriodType</b> complex type MUST be included.

### 2.2.3.6 t:NonEmptyArrayOfTimeZoneIdType Complex Type

The [NonEmptyArrayOfTimeZoneIdType](#) complex type specifies one or more time zone identifiers.

```
<xs:complexType name="NonEmptyArrayOfTimeZoneIdType">
  <xs:sequence>
    <xs:element name="Id"
      type="xs:string"
    />
  </xs:sequence>
</xs:complexType>
```

Child Elements

Element	Type	Description
Id	xs:string	Specifies a time zone identifier.

### 2.2.3.7 t:PeriodType Complex Type

The [PeriodType](#) complex type specifies the name and offset of a specific time zone.

```
<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>
```

#### Attributes

Name	Type	Description
Bias	xs:duration	Specifies the hourly offset from <b>Coordinated Universal Time (UTC)</b> for the time zone.
Name	xs:string	Specifies the descriptive name of the time zone.
Id	xs:string	Specifies a unique identifier for the time zone period.

### 2.2.3.8 t:RecurringDateTransitionType Complex Type

The [RecurringDateTransitionType](#) complex type specifies a time zone transition that occurs on a specified day of the year.

```
<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>
```

#### Child Elements

Element	Type	Description
Day	xs:int	Specifies the day of the year on which the time zone transition occurs.

### 2.2.3.9 t:RecurringDayTransitionType Complex Type

The [RecurringDayTransitionType](#) complex type specifies a time zone transition that occurs on the same weekday each year.

```
<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>
```

#### Child Elements

Element	Type	Description
DayOfWeek	<a href="#">t:DayOfWeekType</a>	Specifies the day of the week on which the time zone transition occurs.
Occurrence	xs:int	Specifies the occurrence of the day of the week in the month that the transition occurs on.

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

Occurrence	Meaning
1	The first occurrence of the specified day of the week from the beginning of the month.
2	The second occurrence of the specified day of the week from the beginning of the month.
3	The third occurrence of the specified day of the week from the beginning of the month.
4	The fourth occurrence of the specified day of the week from the beginning of the month.
-1	The first occurrence of the specified day of the week from the end of the month.
-2	The second occurrence of the specified day of the week from the end of the month.
-3	The third occurrence of the specified day of the week from the end of the month.
-4	The fourth occurrence of the specified day of the week from the end of the month.

### 2.2.3.10 t:RecurringTimeTransitionType Complex Type

The [RecurringTimeTransitionType](#) complex type specifies the base class for recurring time zone transitions.

```
<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>
```

#### Child Elements

Element	Type	Description
TimeOffset	xs:duration	Specifies the hourly offset from Coordinated Universal Time (UTC) for the time zone transition.
Month	xs:int	Specifies the month in which the time zone transition occurs.

### 2.2.3.11 t:TimeZoneContextType Complex Type

The [TimeZoneContextType](#) complex type specifies a time zone definition and enables SOAP protocol attributes to be associated with the definition.

```
<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>
```

#### Child Elements

Element	Type	Description
TimeZoneDefinition	<a href="#">t:TimeZoneDefinitionType</a>	Specifies the definition of a time zone.

### 2.2.3.12 t:TimeZoneDefinitionType Complex Type

The [TimeZoneDefinitionType](#) specifies the time periods and transitions that describe a time zone.

```
<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"
    />
  </xs:sequence>
  <xs:attribute name="Id"
    type="xs:string"
  />
  <xs:attribute name="Name"
    type="xs:string"
  />
</xs:complexType>
```

#### Child Elements

Element	Type	Description
Periods	<a href="#">t:NonEmptyArrayOfPeriodsType</a>	Specifies the time periods when a time zone is in force.
TransitionsGroups	<a href="#">t:ArrayOfTransitionsGroupsType</a>	Specifies a set of transition groups from one time zone specification to another.
Transitions	<a href="#">t:ArrayOfTransitionsType</a>	Specifies a set of transitions from one time zone specification to another.

#### Attributes

Name	Type	Description
Id	xs:string	The unique identifier of the time zone definition.
Name	xs:string	The descriptive name of the time zone definition.



### 2.2.3.13 t:TransitionType Complex Type

The [TransitionType](#) complex type is the base type for all time zone transition complex types.

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

Child Elements

Element	Type	Description
To	<b>t:TransitionTargetType</b>	One of the <a href="#">t:TransitionTargetType</a> enumeration values (section <a href="#">2.2.3.14</a> ) that specify whether the time zone transition is a single period or a group of time zone transitions.

### 2.2.3.14 t:TransitionTargetType Complex Type

The [TransitionTargetType](#) complex type specifies a time zone transition target type.

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

Attributes

Name	Type	Description
Name	<a href="#">t:TransitionTargetKindType</a>	Specifies the target type (period or group of periods) of the transition.

### 2.2.4 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.

Element	Description
<a href="#">t:AbsoluteDateTransition</a>	Specifies a time zone transition that occurs on a specified date and at a specified time.
<a href="#">t:RecurringDateTransition</a>	Specifies a time zone transition that occurs on a specific recurring date.
<a href="#">t:RecurringDayTransition</a>	Specifies a time zone transition that occurs on the same day each year.
<a href="#">t:TimeZoneContext</a>	Specifies a time zone definition and enables the association of SOAP attributes with the definition.
<a href="#">t:Transition</a>	Specifies the base element for all time zone transition elements.

#### 2.2.4.1 AbsoluteDateTransition Element

The [AbsoluteDateTransition](#) element specifies a time zone transition that occurs on a specified date and at a specified time.

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

#### 2.2.4.2 RecurringDateTransition Element

The [RecurringDateTransition](#) element specifies a time zone transition that occurs on a specific recurring date.

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

#### 2.2.4.3 RecurringDayTransition Element

The [RecurringDayTransition](#) element specifies a time zone transition that occurs on the same day each year.

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

#### 2.2.4.4 TimeZoneContext Element

The [TimeZoneContext](#) element specifies a time zone definition and enables the association of SOAP attributes with the definition.

```
<xs:element name="TimeZoneContext"
  type="t:TimeZoneContextType"
  />
```

#### 2.2.4.5 Transition Element

The [Transition](#) element specifies the base element for all time zone transition elements.

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

#### 2.2.5 Attributes

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

#### 2.2.6 Groups

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

#### 2.2.7 Attribute Groups

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

#### 2.2.8 Messages

This specification does not define any common **XML schema** message 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.

Operation	Description
<a href="#">GetServerTimeZones</a>	Gets the time zones that are bsupported by the server.

#### 3.1.1 Abstract Data Model

The Get Server Time Zone Web Service protocol is a stateless protocol.

#### 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.

Operation	Description
<a href="#">GetServerTimeZones</a>	Gets the time zones that are bsupported by the server.

##### 3.1.4.1 GetServerTimeZones

The [GetServerTimeZones](#) operation gets time zone definitions from the server.

```
<wsdl:operation name="GetServerTimeZones">
  <wsdl:input message="tns:GetServerTimeZonesSoapIn" />
  <wsdl:output message="tns:GetServerTimeZonesSoapOut" />
</wsdl:operation>
```

Request

Message Format	Description
<a href="#">tns:GetServerTimeZonesSoapIn</a>	Specifies the <b>SOAP message</b> that requests the server time zone.

Response

Message Format	Description
<a href="#">tns:GetServerTimeZonesSoapOut</a>	Specifies the SOAP message that is returned by the server in response.

### 3.1.4.1.1 Simple Types

The following **XML schema** simple type definitions are specific to this operation.

#### 3.1.4.1.1.1 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.

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

#### Enumeration

The following values are defined by the **TransitionTargetKindType** simple type:

Value	Description
Period	Specifies that the time zone transition target is a single period.
Group	Specifies that the time zone transition target is a group of time zone periods.

### 3.1.4.1.2 Complex Types

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

#### 3.1.4.1.2.1 m:GetServerTimeZonesResponseMessageType Complex Type

The [GetServerTimeZonesResponseMessageType](#) complex type specifies the response that is returned by the [GetServerTimeZones](#) operation (section 3.1.4.1). The [GetServerTimeZonesResponseMessageType](#) complex type extends the [ResponseMessageType](#) complex type ([\[MS-OXWSCDATA\]](#) section 2.2.3.49).

```
<xs:complexType name="GetServerTimeZoneResponseMessageType">
  <xs:complexContent>
    <xs:extension
      base="m:ResponseMessageType"
    />
  </xs:complexContent>
</xs:complexType>
```

```

<xs:sequence>
  <xs:element name="TimeZoneDefinitions"
    type="t:ArrayOfTimeZoneDefinitionType"
    minOccurs="1"
  />
</xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>

```

#### Child Elements

Element	Type	Description
TimeZoneDefinitions	<a href="#">t:ArrayOfTimeZoneDefinitionType</a>	Specifies one or more time zone definitions.

#### 3.1.4.1.2.2 m:GetServerTimeZonesResponseType Complex Type

The [GetServerTimeZonesResponseType](#) complex type extends the [BaseResponseMessageType](#) complex type ([MS-OXWSCDATA] section 2.2.3.15).

```

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

```

#### 3.1.4.1.2.3 m:GetServerTimeZonesType Complex Type

The [GetServerTimeZonesType](#) complex type specifies the requested server time zones or specifies that all server time zones should 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 ([MS-OXWSCDATA] section 2.2.3.14).

```

<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:complexContent>
</xs:complexType>

```

```

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

```

#### Child Elements

Element	Type	Description
Ids	<a href="#">t:NonEmptyArrayOfTimeZoneIdType</a>	Specifies a list of time zone identifiers for which the time zone definitions are returned. If an identifier is included that is not recognized by the server, the server does not return any information and does not report an error. This element is optional. If it is not specified, all time zone definitions that are available on the server are returned.

#### Attributes

Name	Type	Description
ReturnFullTimeZoneData	xs:boolean	Specifies whether the <a href="#">GetServerTimeZones</a> operation (section <a href="#">3.1.4.1</a> ) returns the complete time zone definition or if the operation returns only time zone name and identifiers. This attribute is optional. If it is not included, complete time zone information is returned.

### 3.1.4.1.3 Elements

The following **XML schema** element definitions are specific to this operation.

#### 3.1.4.1.3.1 GetServerTimeZones Element

The [GetServerTimeZones](#) element specifies the base element for a [GetServerTimeZones](#) operation (section [3.1.4.1](#)).

```

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

```

#### 3.1.4.1.3.2 GetServerTimeZonesResponse Element

The [GetServerTimeZonesResponse](#) element specifies the response message for a [GetServerTimeZones](#) operation (section [3.1.4.1](#)).

```

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

```

#### 3.1.4.1.4 Messages

The following **WSDL message** definitions are specific to this operation.

##### 3.1.4.1.4.1 tns:GetServerTimeZonesSoapIn

The [GetServerTimeZonesSoapIn](#) message contains three parts, as described in the following table.

Part Name	Element/Type	Description
request	<a href="#">tns:GetServerTimeZones</a>	Specifies the request.
MailboxCulture	<a href="#">t:MailboxCulture</a>	Specifies the culture to use for accessing the server. The cultures are defined by <a href="#">[RFC3066]</a> .
RequestVersion	<a href="#">t:RequestServerVersion</a>	Specifies the schema version for the <a href="#">GetServerTimeZones</a> request (section <a href="#">3.1.4.1</a> ).

##### 3.1.4.1.4.2 tns:GetServerTimeZonesSoapOut

The [GetServerTimeZonesSoapOut](#) message contains two parts, as described in the following table.

Part Name	Element/Type	Description
GetServerTimeZonesResult	<a href="#">tns:GetServerTimeZonesResponse</a>	Specifies the response.
ServerVersion	<a href="#">t:ServerVersionInfo</a>	Specifies the server version for the response.

#### 3.1.5 Timer Events

None.

#### 3.1.6 Other Local Events

None.

### 3.2 Client Details

None.

#### 3.2.1 Abstract Data Model

None.

#### 3.2.2 Timers

None.

#### 3.2.3 Initialization

None.



### **3.2.4 Message Processing Events and Sequencing**

None.

### **3.2.5 Timer Events**

None.

### **3.2.6 Other Local Events**

None.

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## 4 Protocol Examples

None.

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## 5 Security

### 5.1 Security Considerations for Implementers

The Get Server Time Zone Web Service protocol does not use additional security mechanisms.

### 5.2 Index of Security Parameters

None.

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## 6 Appendix A: Full WSDL

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

File name	Description	Section
MS-OXWSGTZ.wsdl	Contains the WSDL for the implementation of this protocol.	<a href="#">6.1</a>
MS-OXWSGTZ-types.xsd	Contains the XML schema type definitions that are used in this protocol.	<a href="#">6.2</a>
MS-OXWSGTZ-messages.xsd	Contains the XML schema message definitions that are used in this protocol.	<a href="#">6.3</a>

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.

### 6.1 WSDL

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

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/messages"
xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
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="Exchange2010"
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"
xmlns="http://schemas.microsoft.com/exchange/services/2006/messages">
      <xs:import
namespace="http://schemas.microsoft.com/exchange/services/2006/types"/>
      <xs:include schemaLocation="MS-OXWSGTZ-messages.xsd" />
      <!-- Add global elements and types from messages.xsd -->
    </xs:schema>
    <xs:schema id="types" elementFormDefault="qualified" version="Exchange2010"
xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
      <xs:import namespace="http://www.w3.org/XML/1998/namespace"/>
      <!-- Add global elements and types from types.xsd -->
    </xs:schema>
  </wsdl:types>
  <wsdl:portType name="ExchangeServicePortType">
    <wsdl:operation name="GetServerTimeZones">
      <wsdl:input message="tns:GetServerTimeZonesSoapIn" />
      <wsdl:output message="tns:GetServerTimeZonesSoapOut" />
    </wsdl:operation>
  </wsdl:portType>
</wsdl:definitions>
```

```

    </wsdl:portType>
    <wsdl:binding name="ExchangeServiceBinding" type="tns:ExchangeServicePortType">
      <wsdl:documentation>
        <wsi:Claim conformsTo="http://ws-i.org/profiles/basic/1.0"
xmlns:wsi="http://ws-i.org/schemas/conformanceClaim/" />
      </wsdl:documentation>
      <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
      <wsdl:operation name="GetServerTimeZones">
        <soap:operation
soapAction="http://schemas.microsoft.com/exchange/services/2006/messages/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: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="GetServerTimeZonesResult" element="tns:GetServerTimeZonesResponse"
/>
      <wsdl:part name="ServerVersion" element="t:ServerVersionInfo"/>
    </wsdl:message>
  </wsdl:definitions>

```

## 6.2 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.

File name	Defining specification
MS-OXWSCDATA-types.xsd	<a href="#">[MS-OXWSCDATA]</a> section 6.2

```

<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns:t="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:tns="http://schemas.microsoft.com/exchange/services/2006/types"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.microsoft.com/exchange/services/2006/types"
elementFormDefault="qualified" version="Exchange2010" id="types">
<xs:import namespace="http://www.w3.org/XML/1998/namespace"/>

```

```

<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:attribute name="Id" type="xs:string"/>
</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: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:annotation>
<xs:documentation>Allow attributes in the soap namespace to be used here</xs:documentation>
</xs:annotation>
</xs:anyAttribute>
</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:complexType name="TimeZoneType">
<xs:sequence minOccurs="0">
<xs:element name="BaseOffset" type="xs:duration"/>
<xs:sequence minOccurs="0">
<xs:element name="Standard" type="t:TimeChangeType"/>
<xs:element name="Daylight" type="t:TimeChangeType"/>
</xs:sequence>
</xs:sequence>
<xs:attribute name="TimeZoneName" type="xs:string" use="optional"/>
</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>
<xs:complexType name="TransitionType" abstract="false">
<xs:sequence>
<xs:element name="To" type="t:TransitionTargetType"/>
</xs:sequence>
</xs:complexType>
<xs:element name="Transition" type="t:TransitionType"/>
</xs:schema>

```

### 6.3 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-types.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.

File name	Defining specification
MS-OXWSCDATA-messages.xsd	<a href="#">[MS-OXWSCDATA]</a> section 6.3

```

<?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="Exchange2010" id="messages">
  <xs:import namespace="http://schemas.microsoft.com/exchange/services/2006/types"
schemaLocation="MS-OXWSGTZ-types.xsd"/>
  <xs:include schemaLocation="MS-OXWSCDATA-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:complexType name="GetServerTimeZonesResponseType">

```



```
<xs:complexContent>
  <xs:extension base="m:BaseResponseType"/>
</xs:complexContent>
</xs:complexType>
<xs:element name="GetServerTimeZonesResponse" type="m:GetServerTimeZonesResponseType"/>
</xs:schema>
```

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## 7 Appendix B: Product Behavior

The information in this specification is applicable to the following product versions:

- Microsoft Exchange Server 2010

Exceptions, if any, are noted below. If a service pack number appears with the product version, behavior changed in that service pack. The new behavior also applies to subsequent service packs of the product unless otherwise specified.

Unless otherwise specified, any statement of optional behavior in this specification 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.

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## 8 Change Tracking

This section will report content and/or editorial changes, beginning with the next release.

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