# [MS-XWDCAL]:
# Web Distributed Authoring and Versioning (WebDAV) Extensions for Calendar Support

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## Revision Summary

| Date | Revision History | Revision Class | Comments |
|---|---|---|---|
| 12/03/2008 | 1.0 | | Initial Release. |
| 03/04/2009 | 1.01 | | Revised and edited technical content. |
| 04/10/2009 | 2.0 | | Deprecated for Exchange 2010. |
| 07/15/2009 | 3.0 | Major | Changes made for template compliance. |
| 11/04/2009 | 3.1.0 | Minor | Updated the technical content. |

# Table of Contents

# 1 Introduction

This document specifies **property** extensions to [RFC4918], [MS-WDVME], [MS-WDVSE], and [MS-WDV] to allow for creation and manipulation of **Calendar objects** by using **WebDAV**. This protocol specifies properties that will allow clients to find the address for a user's default calendar folder, get and set events on a calendar, find the address to a user's default **free/busy** time, and get access to the user's free/busy time.

## 1.1 Glossary

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

**access control list (ACL)**
**alias**
**appointment**
**ASCII**
**attendee**
**Calendar folder**
**Calendar object**
**class**
**collection**
**Coordinated Universal Time (UTC)**
**contact**
**delegate**
**exception**
**folder**
**free/busy**
**header field**
**Hypertext Transfer Protocol (HTTP)**
**Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**
**Lightweight Directory Access Protocol (LDAP)**
**mailbox**
**meeting**
**Meeting object**
**Meeting Request object**
**Meeting Update object**
**meeting-related object**
**message**
**message ID (MID)**
**non-IPM subtree**
**organizer**
**Out of Office (OOF)**
**permissions**
**plain text**
**property**
**public folder**
**recipient(1)**
**recurrence pattern**
**recurring series**
**reminder**
**Root folder**
**Simple Mail Transfer Protocol (SMTP)**
**single instance**
**store**

**Uniform Resource Identifier (URI)**
**Uniform Resource Locator (URL)**
**WebDAV**
**WebDAV client**
**WebDAV server**
**XML**

The following terms are specific to this document:

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

## 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. 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.

[ISO-8601] International Organization for Standardization, "Data Elements and Interchange Formats - Information Interchange - Representation of Dates and Times", ISO 8601:2004, December 2004, http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=40874.

[MS-OXCDATA] Microsoft Corporation, "Data Structures", June 2008.

[MS-OXCFOLD] Microsoft Corporation, "Folder Object Protocol Specification", June 2008.

[MS-OXCICAL] Microsoft Corporation, "iCalendar to Appointment Object Conversion Protocol Specification", June 2008.

[MS-OXCMAIL] Microsoft Corporation, "RFC2822 and MIME to E-Mail Object Conversion Protocol Specification", June 2008.

[MS-OXCMSG] Microsoft Corporation, "Message and Attachment Object Protocol Specification", June 2008.

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

[MS-OXOCAL] Microsoft Corporation, "Appointment and Meeting Object Protocol Specification", June 2008.

[MS-OXOCNTC] Microsoft Corporation, "Contact Object Protocol Specification", June 2008.

[MS-OXORMDR] Microsoft Corporation, "Reminder Settings Protocol Specification", June 2008.

[MS-OXPROPS] Microsoft Corporation, "Exchange Server Protocols Master Property List", June 2008.

[MS-WDV] Microsoft Corporation, "Web Distributed Authoring and Versioning (WebDAV) Protocol: Client Extensions", August 2008, http://go.microsoft.com/fwlink/?LinkID=134708.

[MS-WDVME] Microsoft Corporation, "Web Distributed Authoring and Versioning (WebDAV) Protocol: Microsoft Extensions", August 2008, http://go.microsoft.com/fwlink/?LinkID=134709.

[MS-WDVSE] Microsoft Corporation, "Web Distributed Authoring and Versioning (WebDAV) Protocol: Server Extensions", August 2008, http://go.microsoft.com/fwlink/?LinkID=134710.

[MS-XWDMAIL] Microsoft Corporation, "Web Distributed Authoring and Versioning (WebDAV) Extensions for E-Mail Support", December 2008.

[MS-XWDSTRUCTDOC] Microsoft Corporation, "Web Distributed Authoring and Versioning (WebDAV) Extensions for Structured Documents", December 2008.

[RFC20] Cerf, V., "ASCII Format for Network Interchange", RFC 20, October 1969, http://www.ietf.org/rfc/rfc20.txt.

[RFC822] Crocker, D.H., "Standard for ARPA Internet Text Messages", RFC 822, August 1982, http://www.ietf.org/rfc/rfc0822.txt.

[RFC1522] "Moore, K., "MIME (Multipurpose Internet Mail Extensions) Part Two: Message Header Extensions for Non-ASCII Text" RFC 1522, September 1993, http://www.ietf.org/rfc/rfc1522.txt.

[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.

[RFC1738] Berners-Lee, T., Masinter, L., and McCahill, M., "Uniform Resource Locators (URL)", RFC 1738, December 1994, http://www.ietf.org/rfc/rfc1738.txt.

[RFC2291] Slein, J., Vitali, F., Whitehead, E., and Durand, D., "Requirements for a Distributed Authoring and Versioning Protocol for the World Wide Web", RFC 2291, February 1998, http://www.ietf.org/rfc/rfc2291.txt.

[RFC2445] Dawson, F. and Stenerson, D., "Internet Calendaring and Scheduling Core Object Specification (iCalendar)", RFC 2445, November 1998, http://www.ietf.org/rfc/rfc2445.txt.

[RFC2447] Dawson, F., Mansour, S., and Silverberg, S., "iCalendar Message-Based Interoperability Protocol (iMIP)", RFC 2447, November 1998, http://www.ietf.org/rfc/rfc2447.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.

[RFC3744] Clemm, G., Reschke, J., Sedlar, E., and Whitehead, J., "Web Distributed Authoring and Versioning (WebDAV) Access Control Protocol", RFC 3744, May 2004, http://www.ietf.org/rfc/rfc3744.txt.

[RFC4791] Daboo, C., Desruisseaux, B., and Dusseault, L., "Calendaring Extensions to WebDAV (CalDAV)", RFC 4791, March 2007, http://www.ietf.org/rfc/rfc4791.txt.

[RFC4918] Dusseault, L. ed., "HTTP Extensions for Web Distributed Authoring and Versioning", RFC4918, June 2007, http://www.ietf.org/rfc/rfc4918.txt.

### 1.2.2 Informative References

None.

## 1.3 Protocol Overview

This document specifies the properties used to exchange Calendar object data between a calendaring client and calendaring server by using WebDAV, as specified in [RFC4918].

## 1.4 Relationship to Other Protocols

This specification is dependent on the WebDAV Protocol, as specified in [RFC4918]. WebDAV, in turn, relies on **Hypertext Transfer Protocol (HTTP)** 1.1, as specified in [RFC2616]. These extensions also rely on the **Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**, as specified in [RFC2818], for data protection services.

This protocol is also dependent on the client, server and Microsoft extensions to [RFC4918] as specified in [MS-WDV], [MS-WDVSE], and [MS-WDVME].

This specification is similar in scope to [RFC4791], however the requirements for [MS-XWDCAL] were created prior to [RFC4791] and while the two protocols contain many similar concepts, the two protocols are not fully compatible with each other.

All properties in this specification are listed in [MS-OXPROPS]. The data type and format of the properties are specified in [MS-OXCDATA].

## 1.5 Prerequisites/Preconditions

This specification requires the following:

- A **WebDAV server**, as defined in [RFC2291].
- The **WebDAV client** contains a **URL** that points to the WebDAV server.
- The WebDAV client obtains the URL through some out-of-band mechanism.
- The WebDAV client and server support WebDAV **access control lists (ACL)**, as specified in [RFC3744].
- The WebDAV client and server support ETags, as specified in [RFC2616] section 14.19.
- The WebDAV client and server support iCalendar, as specified in [RFC2445] as a media type for the Calendar object resource format.

## 1.6 Applicability Statement

A client can use this protocol to exchange Calendar object data with a calendar server by using WebDAV.

## 1.7 Versioning and Capability Negotiation

Supported Transports: [MS-XWDCAL] uses HTTP [RFC2616] and HTTPS [RFC2818] as its only transports.

Versioning: This document introduces no new versioning mechanisms except those that already exist in WebDAV and HTTP as specified in [RFC4918] and [RFC2616].

Capability Negotiation: Clients can call the PROPFIND method on the **Root folder** for the urn:schemas:httpmail:calendar property. If the property exists, then the server supports this protocol.

## 1.8 Vendor-Extensible Properties

This protocol uses HTTP status codes as defined in [RFC2616] section 10 and [RFC4918] section 11.

## 1.9 Standards Assignments

None.

# 2 Messages

## 2.1 Transport

**Messages** are transported using HTTP, as specified in [RFC4918] and [RFC2616].

## 2.2 Message Syntax

By using the **PROPFIND** and **PROPPATCH** methods, properties are available for query and manipulation on Calendar objects. Namespaces such as DAV:, http://schemas.microsoft.com/repl/, and urn:schemas:httpmail: all provide access to general messaging properties used to transport Calendar object data, and are utilized by other message types as well. Whereas the urn:schemas:calendar, http://schemas.microsoft.com/exchange namespaces provide access to calendar specific properties.

For each property in this section, the following information is provided:

- **Canonical name:** The name used to refer to this property in other protocol specifications.
- **Property set:** A GUID that identifies a group of properties with a similar purpose.
- **Property name:** The WebDAV name of the property
- **Data type:** The data type of the property.
- **Area:** The functional area to which the property belongs.
- **Alternate names:** Any additional names used to refer to this property.

### 2.2.1 DAV: Namespace Properties

The DAV: namespace defines properties for general WebDAV data access.

#### 2.2.1.1 PidNameContentClass

**Canonical name:** PidNameContentClass

**Property set:** PS_INTERNET_HEADERS {00020386-0000-0000-C000-000000000046}

**Property name:** DAV:contentclass

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** DAV:contentclass

Identifies the content **class** for the Calendar object. For Calendar objects, the value of this property MUST be set to "urn:content-classes:appointment".

The PidNameContentClass property is further specified in [MS-OXCMAIL] section 2.1.2.2.

#### 2.2.1.2 PidNameDavId

**Canonical name:** PidNameDavId

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** DAV:id

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** DAV:id

Specifies a unique ID for the calendar item.

#### 2.2.1.3 PidNameDavIsCollection

**Canonical name:** PidNameDavIsCollection

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** DAV:iscollection

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** DAV:iscollection

Indicates whether a Calendar object is a **collection**.

#### 2.2.1.4 PidNameDavIsStructuredDocument

**Canonical name:** PidNameDavIsStructuredDocument

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** DAV:isstructureddocument

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** DAV:isstructureddocument

Indicates whether a Calendar object is a structured document, as specified in [MS-XWDSTRUCTDOC].

#### 2.2.1.5 PidNameDavParentName

**Canonical name:** PidNameDavParentName

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** DAV:parentname

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** DAV:parentname

Specifies the name of the **folder** that contains the Calendar object.

#### 2.2.1.6 PidNameDavUid

**Canonical name:** PidNameDavUid

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** DAV:uid

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** DAV:uid

Specifies the unique identifier for an item.

#### 2.2.1.7 PidTagAttributeHidden

**Canonical name:** PidTagAttributeHidden

**Property name:** DAV:ishidden

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** DAV:ishidden

Indicates whether an item is hidden, as specified in [MS-WDVME] section 2.2.9.3.

#### 2.2.1.8 PidTagAttributeReadOnly

**Canonical name:** PidTagAttributeReadOnly

**Property name:** DAV:isreadonly

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** DAV:isreadonly

Indicates whether an item can be modified or deleted. A value of **TRUE** indicates read only, a value of **FALSE** indicates read-write.

#### 2.2.1.9 PidTagComment

**Canonical name:** PidTagComment

**Property name:** DAV:comment

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** DAV:comment

Specifies a comment for the Calendar object.

The PidTagComment property is further specified in [MS-OXCFOLD] section 2.3.2.2.2.

#### 2.2.1.10 PidTagSubfolder

**Canonical name:** PidTagSubfolder

**Property name:** DAV:isfolder

**Data type:** PtypBoolean, 0x000B

**Area:** Mail, Calendar, Document

**Alternate names:** DAV:isfolder

Specifies whether an item is a folder. A value of **TRUE** indicates the item is a folder and is viewable in the mail client. A value of **FALSE** indicates the item is not a folder.

The PidTagSubfolder property is further specified in [MS-WDVME] section 2.2.9.2.

#### 2.2.1.11 PidTagUrlName

**Canonical name:** PidTagUrlName

**Property name:** DAV:href

**Data type:** PtypString, 0x001F

**Area:** Calendar, Document

**Alternate names:** DAV:href

The absolute URL of the calendar item.

### 2.2.2 urn:schemas:calendar: Namespace Properties

The urn:schemas:calendar: namespace defines properties specifically for Calendar object support. Many of the properties in this namespace provide access to Exchange protocol iCalendar properties specified in [MS-OXCICAL]. [MS-OXCICAL] specifies how these properties can be imported and exported from the Exchange protocol calendar properties, as specified in [MS-OXOCAL].

#### 2.2.2.1 PidLidAppointmentReplyTime

**Canonical name:** PidLidAppointmentReplyTime

**Property name:** urn:schemas:calendar:replytime

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** urn:schemas:calendar:replytime

Identifies the date and time when an **attendee** replied to a **meeting** request. You can use this value to determine which response is the most recent when an attendee sends more than one response to a meeting request.

This property corresponds to **X-MICROSOFT-CDO-REPLYTIME**, as specified in [MS-OXCICAL] section 2.2.1.20.37.

#### 2.2.2.2 PidLidAppointmentSubType

**Canonical name:** PidLidAppointmentSubType

**Property name:** urn:schemas:calendar:alldayevent

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** urn:schemas:calendar:alldayevent

Specifies whether the **appointment** or meeting is scheduled for an entire day. Setting this property does not affect the start time or the end time of the appointment or meeting.

The PidLidAppointmentSubType property is further specified in [MS-OXOCAL] section 2.2.1.9.

#### 2.2.2.3 PidLidFreeBusyLocation

**Canonical name:** PidLidFreeBusyLocation

**Property name:** urn:schemas:calendar:fburl

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:fburl

Specifies the URL of the free/busy **public folder**.

The PidLidFreeBusyLocation property is further specified in [MS-OXOCNTC] section 2.2.1.9.10.

The format of the fburl property is as follows:

```
fburl = http domain location company group user legacydn [start] [end]
http    = "http://" / "https://"
domain  = atom ;Server name
atom    = 1*atext
atext   = ALPHA / DIGIT / "!" / "#" / "$" / "%"
        / "&" / "'" / "*" / "+" / "-" / "/" / "="
        / "?" / "^" / "_" / "`" / "{" / "|" / "}" / "~"
; Any character except controls, SP, and specials.
ALPHA   = %x41-5A / %x61-7A  ; A-Z / a-z
DIGIT   = %x30-39            ; 0-9
location = "/public/" atom "/non_ipm_subtree/SCHEDULE+ FREE BUSY/EX:"
;specify the location of the free busy folder as specified in [MS-OXOPFFB] ;section 3.1.4.1.2
company = "/o=" atom ;Specify the /o from the LegacyDN
group   = "/ou=" atom ;Specify the /ou from the LegacyDN
user    = "USER-/"
legacydn = atom
;Specify the rest of the LegacyDN after the OU portion
start   = "?start" year "-" month "-" day
end     = "&end=" year "-" month "-" day
year    = 4*DIGIT / obs-year
```

```
month   = obs-month
day     = ([FWS] 1*2DIGIT) / obs-day
atom    = [CFWS] 1*atext [CFWS]
atext   = ALPHA / DIGIT / "!" / "#" / "$" / "%"
        / "&" / "'" / "*" / "+" / "-" / "/" / "="
        / "?" / "^" / "_" / "`" / "{" / "|" / "}" / "~"
```

For example:

```
http://<domain>/public/MAPITLH/non_ipm_subtree/SCHEDULE+ FREE BUSY/EX:/o=<o from legacyDN of
User>/ou=<OU from legacyDN of User>/USER-/<rest of the User's legacyDN after the OU
part>?start1999-01-05&end=1999-01-08
```

Start and end dates MUST be expressed in [ISO-8601] format. The end-date is inclusive, so if the start date and the end date are the same, the response will include one day. If the end date is before the start date, the server MUST return an error (400 Bad Request).<1>

#### 2.2.2.4 PidLidLocation

**Canonical name:** PidLidLocation

**Property name:** urn:schemas:calendar:location

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:location

The location of an appointment or meeting.

This property corresponds to the **LOCATION** property, as specified in [MS-OXCICAL] section 2.2.1.20.15.

#### 2.2.2.5 PidLidOwnerCriticalChange

**Canonical name:** PidLidOwnerCriticalChange

**Property name:** urn:schemas:calendar:dtstamp

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** urn:schemas:calendar:dtstamp

Identifies the datetime that a Calendar object was created.

This property corresponds to the **DTSTAMP** property, as specified in [MS-OXCICAL] section 2.2.1.20.9.

#### 2.2.2.6 PidLidResponseStatus

**Canonical name:** PidLidResponseStatus

**Property name:** urn:schemas:calendar:attendeestatus

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** urn:schemas:calendar:attendeestatus

Specifies the status of the attendee.

The PidLidResponseStatus property is further specified in [MS-OXOCAL] section 2.2.1.11.

#### 2.2.2.7 PidNameCalendarAttendeeRole

**Canonical name:** PidNameCalendarAttendeeRole

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:attendeerole

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** urn:schemas:calendar:attendeerole

Specifies the role of the attendee. The following table lists valid values:

| Description | Value |
|---|---|
| Required | 0 |
| Optional | 1 |
| Nonparticipant, but copied for reference | 2 |
| Chair | 3 |

#### 2.2.2.8 PidNameCalendarBusystatus

**Canonical name:** PidNameCalendarBusystatus

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:busystatus

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:busystatus

Specifies whether the attendee is busy at the time of an appointment on their calendar. The following states are possible:

- **Out of Office (OOF)**
- Busy

- Tentative
- Free

This property corresponds to **X-MICROSOFT-CDO-BUSYSTATUS**, which is further specified in [MS-OXCICAL] section 2.2.1.20.31.

#### 2.2.2.9 PidNameCalendarContact

**Canonical name:** PidNameCalendarContact

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:contact

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:contact

Identifies the name of a **contact** who is an attendee of a meeting.

This property corresponds to the **CONTACT** property, as specified in [MS-OXCICAL] section 2.2.1.20.6.

#### 2.2.2.10 PidNameCalendarContactUrl

**Canonical name:** PidNameCalendarContactUrl

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:contacturl

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:contacturl

Identifies the URL where you can access contact information in **HTML** format.

#### 2.2.2.11 PidNameCalendarCreated

**Canonical name:** PidNameCalendarCreated

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:created

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** urn:schemas:calendar:created

Identifies the date and time that the **organizer** created the appointment or meeting.

This property corresponds to the **CREATED** property, as specified in [MS-OXCICAL] section 2.2.1.20.7.

#### 2.2.2.12 PidNameCalendarDescriptionUrl

**Canonical name:** PidNameCalendarDescriptionUrl

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:descriptionurl

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:descriptionurl

The URL of a resource that contains a description of an appointment or meeting. This property is further specified in [RFC2445] section 4.2.1 as the ALTREP DESCRIPTION property, which is a **Uniform Resource Identifier (URI)**. URIs can contain only US-**ASCII** characters [RFC20]. The server SHOULD assume that URIs in this property contain only US-ASCII characters, and therefore the server does not perform character-encoding conversions.

#### 2.2.2.13 PidNameCalendarDuration

**Canonical name:** PidNameCalendarDuration

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:duration

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** urn:schemas:calendar:duration

Identifies the duration, in seconds, of an appointment or meeting.

This property corresponds to the **DURATION** property, as specified in [MS-OXCICAL] section 2.2.1.20.12.

#### 2.2.2.14 PidNameCalendarExceptionDate

**Canonical name:** PidNameCalendarExceptionDate

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:exdate

**Data type:** PtypMultipleTime, 0x1040

**Area:** Common

**Alternate names:** urn:schemas:calendar:exdate

Identifies a list of dates that are **exceptions** to a recurring appointment. Exceptions are instances of the appointment that have been deleted or changed.

This property corresponds to the **EXDATE** property, as specified in [MS-OXCICAL] section 2.2.1.20.13.

The PidNameCalendarExceptionDate property is combined with the following property to specify the complete **recurrence pattern**:

- The PidTagICalendarStartTime property (section 2.2.2.41)
- The PidNameICalendarRecurrenceRule property (section 2.2.2.37)
- The PidNameICalendarRecurrenceDate property (section 2.2.2.36)
- The PidNameCalendarExceptionRule property (section 2.2.2.15)

### 2.2.2.15 PidNameCalendarExceptionRule

**Canonical name:** PidNameCalendarExceptionRule

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name**: urn:schemas:calendar:exrule

**Data type:** PtypMultipleString, 0x101F

**Area:** Common

**Alternate names:** urn:schemas:calendar:exrule

Specifies an exception rule for a recurring appointment. An exception rule is a repeating pattern of exceptions.

This property corresponds to the **EXRULE** property, as specified in [RFC2445].

The PidNameCalendarExceptionRule property is combined with the following properties to specify the complete recurrence pattern:

- The PidTagICalendarStartTime property (section 2.2.2.41)
- The PidNameICalendarRecurrenceRule property (section 2.2.2.37)
- The PidNameICalendarRecurrenceDate property (section 2.2.2.36)
- The PidNameCalendarExceptionDate property (section 2.2.2.14)

### 2.2.2.16 PidNameCalendarGeoLatitude

**Canonical name:** PidNameCalendarGeoLatitude

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:geolatitude

**Data type:** PtypFloating64, 0x0005

**Area:** Common

**Alternate names:** urn:schemas:calendar:geolatitude

Specifies the geographical latitude of the location of an appointment. Positive values from 0 to 90 specify degrees of northern latitude. Negative values from 0 to -90 specify degrees of southern latitude.

This property corresponds to the **GEO** latitude property, as specified in [RFC2445] section 4.8.1.6.

If a value for PidNameCalendarGeoLatitude is set, a value for PidNameCalendarGeoLongitude SHOULD also be set. If only one of the two values is set, the value SHOULD NOT be saved.

#### 2.2.2.17 PidNameCalendarGeoLongitude

**Canonical name:** PidNameCalendarGeoLongitude

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:geolongitude

**Data type:** PtypFloating64, 0x0005

**Area:** Common

**Alternate names:** urn:schemas:calendar:geolongitude

Specifies the geographical longitude of the location of an appointment. Positive values from 0 to 180 specify degrees of eastern longitude. Negative values from 0 to -180 specify degrees of western longitude.

This property corresponds to the **GEO** longitude property, as specified in [RFC2445] section 4.8.1.6.

If a value for PidNameCalendarGeoLongitude is set, a value for PidNameCalendarGeoLatitude SHOULD also be set. If only one of the two values is set, the value SHOULD NOT be saved.

#### 2.2.2.18 PidNameCalendarInstanceType

**Canonical name:** PidNameCalendarInstanceType

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:instancetype

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** urn:schemas:calendar:instancetype

Specifies the type of an appointment. The following types are possible:

- Single appointment
- Master recurring appointment
- Instance of a recurring appointment
- Exception to a recurring appointment

This property cannot be directly imported and exported from a Calendar object property. Use this property to populate PidLidMeetingType and PidLidAppointmentRecur, as specified in [MS-OXOCAL] section 2.

The following table lists the valid values for the PidNameCalendarInstanceType property:

| Value | Description |
|---|---|
| 0 | A single appointment or meeting. |
| 1 | A recurring series. This is the master appointment for the series, which identifies all the appointments in the series. |
| 2 | A **single instance** of a recurring meeting or appointment. |
| 3 | An exception to a recurring meeting or appointment. |

Clients SHOULD NOT change the value of this property.

The server SHOULD automatically set this property when changes to the appointment are committed. For example, assume a recurring appointment that has the PidNameCalendarInstanceType **property set** to master (1). If all of the recurrence patterns and exceptions that are associated with this appointment or meeting are deleted, and the appointment or meeting is saved, the server updates the **instance** type to single instance (2). If the original value of the PidNameCalendarInstanceType property is single instance (2) or exception, the value does not change.

### 2.2.2.19 PidNameCalendarIsOrganizer

**Canonical name:** PidNameCalendarIsOrganizer

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:isorganizer

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** urn:schemas:calendar:isorganizer

Specifies whether an attendee is the organizer of an appointment or meeting.

### 2.2.2.20 PidNameCalendarLastModified

**Canonical name:** PidNameCalendarLastModified

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:lastmodified

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** urn:schemas:calendar:lastmodified

Specifies the date and time when an appointment was last modified.

This property corresponds to the **LAST-MODIFIED** property, as specified in [MS-OXCICAL] section 2.2.1.20.14.

This value SHOULD be stored in the appointment stream separate from PidTagLastModificationTime.

#### 2.2.2.21 PidNameCalendarLocationUrl

**Canonical name:** PidNameCalendarLocationUrl

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:locationurl

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:locationurl

Specifies a URL where you can access location information in HTML format.

This property corresponds to the **X-MS-OLK-MWSURL** property, as specified in [MS-OXCICAL] section 2.2.1.20.55.

#### 2.2.2.22 PidNameCalendarMeetingStatus

**Canonical name:** PidNameCalendarMeetingStatus

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:meetingstatus

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:meetingstatus

Specifies the status of an appointment or meeting. The following states are possible.

- Tentative
- Confirmed
- Cancelled

This property corresponds to the **STATUS** property, as specified in [RFC2445] section 4.8.1.11.

The following table lists the valid values of the meeting status property:

| Description | Value |
|---|---|
| Meeting cancelled | CANCELLED |
| Meeting confirmed | CONFIRMED |
| Meeting is tentative | TENTATIVE |

#### 2.2.2.23 PidNameCalendarMethod

**Canonical name:** PidNameCalendarMethod

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:method

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:method

Specifies the iCalendar method that is associated with an appointment object.

This property corresponds to the **METHOD** property, as specified in [MS-OXCICAL] section 2.2.1.1.

#### 2.2.2.24 PidNameCalendarProductId

**Canonical name:** PidNameCalendarProductId

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:prodid

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:prodid

Identifies the product that created the iCalendar-formatted stream.

This property corresponds to the **PRODID** property, as specified in [MS-OXCICAL] section 2.2.1.2.

#### 2.2.2.25 PidNameCalendarRecurrenceIdRange

**Canonical name:** PidNameCalendarRecurrenceIdRange

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:recurrenceidrange

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:recurrenceidrange

Specifies which instances of a recurring appointment the PidNameCalendarRecurrenceIdRange property refers to. The value **ThisAndFuture** refers to the instance specified by the **recurrenceid** property and to all later instances of the recurring appointment. The value **ThisAndPrior** refers to the instance specified by the **recurrenceid** property and to all earlier instances of the recurring appointment. The default value is **None**, which means that the **recurrenceid** property refers to a single instance.

This property corresponds to the **RANGE** property, as specified in [RFC2445] section 4.2.13.

#### 2.2.2.26 PidNameCalendarReminderOffset

**Canonical name:** PidNameCalendarReminderOffset

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:reminderoffset

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** urn:schemas:calendar:reminderoffset

Identifies the number of seconds before an appointment starts that a **reminder** is to be displayed.

For appointments that are received as iCalendar messages, this value SHOULD be taken from the first **VALARM** calendar component of the appointment.

This property corresponds to the **TRIGGER** property, as specified in [MS-OXCICAL] section 2.2.1.20.62.1.

#### 2.2.2.27 PidNameCalendarResources

**Canonical name:** PidNameCalendarResources

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:resources

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:resources

Identifies a list of resources, such as rooms and video equipment, which are available for an appointment. This property is specified by mailto URIs, and separated by commas.

This property corresponds to the RESOURCES property, as specified in [MS-OXCICAL] section 2.2.1.20.21.

#### 2.2.2.28 PidNameCalendarRsvp

**Canonical name:** PidNameCalendarRsvp

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:rsvp

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** urn:schemas:calendar:rsvp

Specifies whether the organizer of an appointment or meeting requested a response.

#### 2.2.2.29 PidNameCalendarSequence

**Canonical name:** PidNameCalendarSequence

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:sequence

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** urn:schemas:calendar:sequence

Specifies the sequence number of a version of an appointment.

This property corresponds to the **SEQUENCE** property, as specified in [MS-OXCICAL] section 2.2.1.20.22.

The server SHOULD increment the sequence number when one or more of the following properties is changed: PidTagICalendarStartTime, PidTagICalendarEndTime, PidNameCalendarDuration, PidNameICalendarRecurrenceDate, PidNameICalendarRecurrenceRule, PidNameCalendarExceptionDate, or PidNameCalendarExceptionRule property.

Clients SHOULD NOT change this value.

#### 2.2.2.30 PidNameCalendarTimeZone

**Canonical name:** PidNameCalendarTimeZone

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:timezone

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:timezone

Specifies the time zone of an appointment or meeting. This property enables you to define time zones that are not defined by the PidNameCalendarTimeZoneId property. If you specify this property, the PidNameCalendarTimeZoneId property SHOULD be ignored.

This property corresponds to the **VTIMEZONE** calendar component, as specified in [MS-OXCICAL] section 2.2.1.19.

An example of this property is provided in section 4.3.2.

#### 2.2.2.31 PidNameCalendarTimeZoneId

**Canonical name:** PidNameCalendarTimeZoneId

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:timezoneid

**Data type:** PtypInteger32, 0x0003

**Area: Common**

**Alternate names:** urn:schemas:calendar:timezoneid

Specifies the timezone identifier of an appointment or meeting.

This property corresponds to the **TZID** property, as specified in [MS-OXCICAL] section 2.2.1.19.1.

This property SHOULD be ignored if the PidNameCalendarTimeZone property is specified.

The following table lists the valid values of the PidNameCalendarTimeZoneId property:

| Name | Value | Description |
|---|---|---|
| **UTC** | 0 | Coordinated Universal Time (UTC) |
| GMT | 1 | Greenwich Mean Time (same as UTC) |
| Lisbon | 2 | Dublin, Edinburgh, Lisbon, London (UTC + 0:00) |
| Paris | 3 | Brussels, Copenhagen, Madrid, Paris, Vilnius (UTC + 1:00) |
| Berlin | 4 | Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna (UTC + 1:00) |
| EasternEurope | 5 | Eastern Europe (UTC + 2:00) |
| Prague | 6 | Belgrade, Pozsony, Budapest, Ljubljana, Prague (UTC + 1:00) |
| Athens | 7 | Athens, Instanbul, Minsk (UTC + 2:00) |
| Brasilia | 8 | Brasilia (UTC - 3:00) |
| AtlanticCanada | 9 | Atlantic time (UTC - 4:00) |
| Eastern | 10 | Eastern time (UTC - 5:00) |
| Central | 11 | Central time (UTC - 6:00) |
| Mountain | 12 | Mountain time (UTC - 7:00) |
| Pacific | 13 | Pacific time (UTC - 8:00) |
| Alaska | 14 | Alaska (UTC - 9:00) |
| Hawaii | 15 | Hawaii (UTC - 10:00) |
| MidwayIsland | 16 | Midway Island, Samoa (UTC - 11:00) |
| Wellington | 17 | Auckland, Wellington (UTC + 12:00) |
| Brisbane | 18 | Brisbane (UTC + 10:00) |
| Adelaide | 19 | Adelaide (UTC + 9:30) |
| Tokyo | 20 | Osaka, Sapporo, Tokyo (UTC + 9:00) |
| HongKong | 21 | Hong Kong SAR (UTC + 8:00) |
| Bangkok | 22 | Bangkok, Hanoi, Jakarta (UTC + 7:00) |

| Name | Value | Description |
|---|---|---|
| Bombay | 23 | Mumbai, Kolkata, Chennai, New Delhi (UTC + 5:30) |
| AbuDhabi | 24 | Abu Dhabi, Muscat (UTC + 4:00) |
| Tehran | 25 | Tehran (UTC + 3:30) |
| Baghdad | 26 | Baghdad, Kuwait, Riyadh (UTC + 3:00) |
| Israel | 27 | Israel (UTC + 2:00) |
| Newfoundland | 28 | Newfoundland (UTC - 3:30) |
| Azores | 29 | Azores, Cape Verde Islands (UTC - 1:00) |
| MidAtlantic | 30 | MID Atlantic (UTC - 2:00) |
| Monrovia | 31 | Casablanca, Monrovia (UTC + 0:00) |
| BuenosAires | 32 | Buenos Aires, Georgetown (UTC - 3:00) |
| Caracas | 33 | Caracas, La Paz (UTC - 4:00) |
| Indiana | 34 | Indiana (UTC - 5:00) |
| Bogota | 35 | Bogota, Lima, Quito (UTC - 5:00) |
| Saskatchewan | 36 | Saskatchewan (UTC - 6:00) |
| MexicoCity | 37 | Mexico City, Tegucigalpa (UTC - 6:00) |
| Arizona | 38 | Arizona (UTC - 7:00) |
| Eniwetok | 39 | Eniwetok, Kwajalein (UTC - 12:00) |
| Fiji | 40 | Fiji Islands, Kamchatka, Marshall Islands (UTC + 12:00) |
| Magadan | 41 | Magadan, Solomon Islands, New Caledonia (UTC + 11:00) |
| Hobart | 42 | Hobart (UTC + 10:00) |
| Guam | 43 | Guam, Port Moresby (UTC + 10:00) |
| Darwin | 44 | Darwin (UTC + 9:30) |
| Beijing | 45 | Beijing, Chongqing, Urumqi (UTC + 8:00) |
| Almaty | 46 | Akmola, Almaty, Dhaka (UTC + 6:00) |
| Islamabad | 47 | Islamabad, Karachi, Tashkent (UTC + 5:00) |
| Kabul | 48 | Kabul (UTC + 4:30) |
| Cairo | 49 | Cairo (UTC + 2:00) |
| Harare | 50 | Harare, Pretoria (UTC + 2:00) |
| Moscow | 51 | Moscow, St. Petersburg, Volgograd (UTC + 3:00) |
| InvalidTimeZone | 52 | Invalid time zone |

#### 2.2.2.32 PidNameCalendarTransparent

**Canonical name:** PidNameCalendarTransparent

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:transparent

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:transparent

Specifies whether an appointment or meeting is visible to busy time searches. Valid values are "opaque" (visible) and "transparent" (invisible).

This property corresponds to the **TRANSP** property, as specified in [MS-OXCICAL] section 2.2.1.20.25.

#### 2.2.2.33 PidNameCalendarUid

**Canonical name:** PidNameCalendarUid

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:uid

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:uid

Specifies the unique identifier of an appointment or meeting.

This property corresponds to the **UID** property, as specified in [MS-OXCICAL] section 2.2.1.20.26.

#### 2.2.2.34 PidNameCalendarVersion

**Canonical name:** PidNameCalendarVersion

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:version

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:version

Identifies the version of the iCalendar specification that is required to correctly interpret an iCalendar object.

This property corresponds to the **VERSION** property, as specified in [MS-OXCICAL] section 2.2.1.3.

#### 2.2.2.35 PidNameFrom

**Canonical name:** PidNameFrom

**Property set:** PS_INTERNET_HEADERS {00020386-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:organizer

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:calendar:organizer

Specifies the **SMTP** e-mail **alias** of the organizer of an appointment or meeting. The organizer is the attendee with the PidNameCalendarIsOrganizer property set to **TRUE**.

This property corresponds to the **ORGANIZER** property, as specified in [MS-OXCICAL] section 2.2.1.20.16.

#### 2.2.2.36 PidNameICalendarRecurrenceDate

**Canonical name:** PidNameICalendarRecurrenceDate

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:rdate

**Data type:** PtypMultipleTime, 0x1040

**Area:** Common

**Alternate names:** urn:schemas:calendar:rdate

Identifies an array of instances of a recurring appointment. The instances are stored as the dates and times of the appointment.

This property corresponds to the **RDATE** property, as specified in [MS-OXCICAL] section 2.2.1.20.18.

The PidNameICalendarRecurrenceDate property is combined with the following properties to specify the complete recurrence pattern:

- The PidTagICalendarStartTime property (section 2.2.2.41)
- The PidNameICalendarRecurrenceRule property (section 2.2.2.37)
- The PidNameCalendarExceptionDate property (section 2.2.2.14)
- The PidNameCalendarExceptionRule property (section 2.2.2.15)

#### 2.2.2.37 PidNameICalendarRecurrenceRule

**Canonical name:** PidNameICalendarRecurrenceRule

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:calendar:rrule

**Data type:** PtypMultipleString, 0x101F

**Area:** Common

**Alternate names:** urn:schemas:calendar:rrule

Specifies the rule for the pattern that defines a recurring appointment. The PidTagICalendarStartTime property specifies the first instance of the appointment. The rule is based on the date and time of the first instance.

This property corresponds to the **RRULE** property, as specified in [MS-OXCICAL] section 2.2.1.20.19.

The PidNameICalendarRecurrenceRule property is combined with the following properties to specify the complete recurrence pattern:

- The PidTagICalendarStartTime property (section 2.2.2.41)
- The PidNameICalendarRecurrenceDate property (section 2.2.2.36)
- The PidNameCalendarExceptionDate property (section 2.2.2.14)
- The PidNameCalendarExceptionRule property (section 2.2.2.15)

### 2.2.2.38 PidTagCdoRecurrenceid

**Canonical name:** PidTagCdoRecurrenceid

**Property name:** urn:schemas:calendar:recurrenceid

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** urn:schemas:calendar:recurrenceid

A recurrence identifier that identifies a specific instance of a recurring appointment. This property SHOULD be used with the PidNameCalendarSequence property to uniquely identify the instance. The value of the recurrence identifier is the starting date and time of the specific instance.

The PidNameCalendarRecurrenceIdRange property can modify the meaning of the PidTagCdoRecurrenceid property to refer to multiple instances of a recurring appointment.

This property corresponds to the **RECURRENCE-ID** property, as specified in [MS-OXCICAL] section 2.2.1.20.20.

### 2.2.2.39 PidTagICalendarEndTime

**Canonical name:** PidTagICalendarEndTime

**Property name:** urn:schemas:calendar:dtend

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** urn:schemas:calendar:dtend

Identifies the date and time when the appointment or meeting ends.

This property corresponds to the **DTEND** property, as specified in [MS-OXCICAL] section 2.2.1.20.8.

### 2.2.2.40 PidTagICalendarReminderNextTime

**Canonical name:** PidTagICalendarReminderNextTime

**Property name:** urn:schemas:calendar:remindernexttime

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** urn:schemas:calendar:remindernexttime

Identifies the date and time for the activation of the next reminder.

### 2.2.2.41 PidTagICalendarStartTime

**Canonical name:** PidTagICalendarStartTime

**Property name:** urn:schemas:calendar:dtstart

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** urn:schemas:calendar:dtstart

Identifies the date and time when an appointment or meeting starts.

This property corresponds to the **DTSTART** property, as specified in [MS-OXCICAL] section 2.2.1.20.10.

The PidTagICalendarStartTime property is combined with the following properties to specify the complete recurrence pattern:

- The PidNameICalendarRecurrenceDate property (section 2.2.2.36)
- The PidNameICalendarRecurrenceRule property (section 2.2.2.37)
- The PidNameCalendarExceptionDate property (section 2.2.2.14)
- The PidNameCalendarExceptionRule property (section 2.2.2.15)

### 2.2.2.42 PidTagLastModificationTime

**Canonical name:** PidTagLastModificationTime

**Property name:** urn:schemas:calendar:lastmodifiedtime

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** urn:schemas:calendar:lastmodifiedtime

The date and time when an appointment was last saved.

The PidTagLastModificationTime property is further specified in [MS-OXCMSG] section 2.2.2.2.

This property can have a different value in the appointment of the organizer and in the copy of each attendee. The server SHOULD update this value when any method saves an appointment.

### 2.2.2.43 PidTagResponseRequested

**Canonical name:** PidTagResponseRequested

**Property name:** urn:schemas:calendar:responserequested

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** urn:schemas:calendar:responserequested

Indicates whether the originator of the meeting requested a response. A value of **TRUE** indicates a response is requested, a value of **FALSE** indicates no response is requested.

This property corresponds to the RSVP property, as specified in [MS-OXCICAL] section 2.2.1.20.2.5.

For outgoing meeting requests, if PidTagResponseRequested is **TRUE**, the iCalendar RSVP property of all attendees SHOULD be set to **TRUE**, or if PidTagResponseRequested is **FALSE**, the RSVP property of all attendees SHOULD be set to **FALSE**. For incoming meeting requests, if the iCalendar RSVP property of any attendee is **TRUE**, then PidTagResponseRequested SHOULD be set to **TRUE**, or if RSVP for all attendees is **FALSE**, then PidTagResponseRequested SHOULD be set to **FALSE**.

The PidTagResponseRequested property SHOULD be set to **FALSE** if the meeting does not have an organizer. The organizer is an attendee with the PidNameCalendarIsOrganizer property set to **TRUE**.

### 2.2.2.44 vfreebusy component

The **vfreebusy** component contains free/busy information when the default iCalendar format is not used. The **vfreebusy** component can contain a request for free/busy information, a response containing free/busy information, or free/busy information to publish.

The following schema identifies the format of the **vfreebusy** component:

```
<?xml version="1.0" encoding="utf-8" ?>
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
targetNamespace="urn:schemas:calendar:" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="vfreebusy">
    <xs:complexType>
      <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="1" name="freebusyresp">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="1" maxOccurs="1" name="attendee">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:pattern value="^MAILTO:\w+[\w-\.]*\@\w+((-\w+)|(\w*))\.[a-z]{2,3}$"
/>
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
```

```
              <xs:element minOccurs="1" maxOccurs="1" name="dtstamp">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:pattern value="^([0-9]{2,4}):([0-1][0-9]):([0-3][0-9])T([0-2][0-
9]):([0-5][0-9])(:([0-5][0-9]))?" />
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element minOccurs="1" name="uid">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:pattern value="^([0-9]{2,4})([0-1][0-9])([0-3][0-9])T([0-2][0-9])([0-
5][0-9])([0-5][0-9][0-9])-\w+[\w-\.]*\@\w+((-\w+)|(\w*))\.[a-z]{2,3}" />
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element minOccurs="1" maxOccurs="1" name="freebusy">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element minOccurs="1" maxOccurs="unbounded" name="fbitem">
                      <xs:complexType>
                        <xs:sequence>
                          <xs:element minOccurs="1" maxOccurs="1" name="dtstart"
type="xs:dateTime" />
                          <xs:element minOccurs="0" maxOccurs="1" name="duration">
                            <xs:simpleType>
                              <xs:union memberTypes="xs:duration xs:dateTime" />
                            </xs:simpleType>
                          </xs:element>
                          <xs:element minOccurs="0" maxOccurs="1" name="dtend"
type="xs:dateTime" />
                          <xs:element minOccurs="0" maxOccurs="1" name="busystatus">
                            <xs:simpleType>
                              <xs:restriction base="xs:string">
                                <xs:enumeration value="FREE" />
                                <xs:enumeration value="TENTATIVE" />
                                <xs:enumeration value="BUSY" />
                                <xs:enumeration value="OOF" />
                              </xs:restriction>
                            </xs:simpleType>
                          </xs:element>
                        </xs:sequence>
                      </xs:complexType>
                    </xs:element>
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
            <xs:attribute name="href" type="xs:string" />
          </xs:complexType>
        </xs:element>
        <xs:element minOccurs="0" maxOccurs="1" name="freebusyreq">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="1" maxOccurs="1" name="attendee" type="xs:string" />
              <xs:element minOccurs="1" maxOccurs="1" name="dtstamp">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
```

```
                    <xs:pattern value="^([0-9]{2,4}):([0-1][0-9]):([0-3][0-9])T([0-2][0-
9]):([0-5][0-9])(:([0-5][0-9]))?" />
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element minOccurs="1" name="uid">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:pattern value="^([0-9]{2,4})([0-1][0-9])([0-3][0-9])T([0-2][0-9])([0-
5][0-9])([0-5][0-9][0-9])-\w+[\w-\.]*\@\w+((-\w+)|(\w*))\.[a-z]{2,3}" />
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element minOccurs="1" maxOccurs="1" name="freebusy">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element minOccurs="1" maxOccurs="unbounded" name="fbitem">
                      <xs:complexType>
                        <xs:sequence>
                          <xs:element minOccurs="1" maxOccurs="1" name="dtstart"
type="xs:dateTime" />
                          <xs:element minOccurs="0" maxOccurs="1" name="duration">
                            <xs:simpleType>
                              <xs:union memberTypes="xs:duration xs:dateTime" />
                            </xs:simpleType>
                          </xs:element>
                          <xs:element minOccurs="0" maxOccurs="1" name="dtend"
type="xs:dateTime" />
                          <xs:element minOccurs="0" maxOccurs="1" name="busystatus">
                            <xs:simpleType>
                              <xs:restriction base="xs:string">
                                <xs:enumeration value="FREE" />
                                <xs:enumeration value="TENTATIVE" />
                                <xs:enumeration value="BUSY" />
                                <xs:enumeration value="OOF" />
                              </xs:restriction>
                            </xs:simpleType>
                          </xs:element>
                        </xs:sequence>
                      </xs:complexType>
                    </xs:element>
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
            <xs:attribute name="href" type="xs:string" use="required" />
          </xs:complexType>
        </xs:element>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="comment" type="xs:string" />
        <xs:element minOccurs="0" maxOccurs="1" name="busytime">
          <xs:complexType>
            <xs:sequence>
              <xs:element minOccurs="1" maxOccurs="1" name="attendee">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:pattern value="^MAILTO:\w+[\w-\.]*\@\w+((-\w+)|(\w*))\.[a-z]{2,3}$"
/>
                  </xs:restriction>
                </xs:simpleType>
```

```
              </xs:element>
              <xs:element minOccurs="1" maxOccurs="1" name="dtstamp">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:pattern value="^([0-9]{2,4}):([0-1][0-9]):([0-3][0-9])T([0-2][0-
9]):([0-5][0-9])(:([0-5][0-9]))?" />
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element minOccurs="1" name="uid">
                <xs:simpleType>
                  <xs:restriction base="xs:string">
                    <xs:pattern value="^([0-9]{2,4})([0-1][0-9])([0-3][0-9])T([0-2][0-9])([0-
5][0-9])([0-5][0-9][0-9])-\w+[\w-\.]*\@\w+((-\w+)|(\w*))\.[a-z]{2,3}" />
                  </xs:restriction>
                </xs:simpleType>
              </xs:element>
              <xs:element minOccurs="1" maxOccurs="1" name="freebusy">
                <xs:complexType>
                  <xs:sequence>
                    <xs:element minOccurs="1" maxOccurs="unbounded" name="fbitem">
                      <xs:complexType>
                        <xs:sequence>
                          <xs:element minOccurs="1" maxOccurs="1" name="dtstart"
type="xs:dateTime" />
                          <xs:element minOccurs="0" maxOccurs="1" name="duration">
                            <xs:simpleType>
                              <xs:union memberTypes="xs:duration xs:dateTime" />
                            </xs:simpleType>
                          </xs:element>
                          <xs:element minOccurs="0" maxOccurs="1" name="dtend"
type="xs:dateTime" />
                          <xs:element minOccurs="0" maxOccurs="1" name="busystatus">
                            <xs:simpleType>
                              <xs:restriction base="xs:string">
                                <xs:enumeration value="FREE" />
                                <xs:enumeration value="TENTATIVE" />
                                <xs:enumeration value="BUSY" />
                                <xs:enumeration value="OOF" />
                              </xs:restriction>
                            </xs:simpleType>
                          </xs:element>
                        </xs:sequence>
                      </xs:complexType>
                    </xs:element>
                  </xs:sequence>
                </xs:complexType>
              </xs:element>
            </xs:sequence>
            <xs:attribute name="href" type="xs:string" />
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

The iCalendar recurrence properties **rrule** (PidNameICalendarRecurrenceRule), **exrule** (PidNameCalendarExceptionRule), **rdate** (PidNameICalendarRecurrenceDate), and **exdate** (PidNameCalendarExceptionDate) are not permitted within the **vfreebusy** component. Recurring events are expanded into individual events by using the **freebusy** component.

The **vfreebusy** calendar component MUST include either the **freebusyreq**, **freebusyresp**, or **busytime** calendar components. The **freebusyreq** specifies a free busy request, the **freebusyresp** contains a free busy response, and the **busytime** component describes a published set of busy time. The **vfreebusy** calendar component can include the comment property.

The **freebusyreq**, **freebusyresp**, and **busytime** components each MUST include the attendee, **dtstamp**, **uid** properties and the **freebusy** component.

The **freebusy** component MUST include at least one **fbitem** component.

The **fbitem** component MUST include **dtstart**, **dtend**, and **busystatus** properties, or the **dtstart** and **duration** properties.

The **attendee** property is the MAILTO URI, as specified in [RFC1738] section 3.5, of the person invited to attend the meeting.

The **comment** property is a string commenting on the **vfreebusy** component.

The elements of the **vfreebusy** component are not the same as the similarly **named urn:schemas:calendar** properties. The syntax of the **vfreebusy** elements are specified in the XSD provided earlier in this section.

An example using the **vfreebusy** component is provided in section 4.6.

### 2.2.3 urn:schemas:httpmail: Namespace Properties

The urn:schemas:httpmail: namespace defines properties for general WebDAV data access. Some properties in this namespace provide access to the properties specified in [MS-OXCMAIL], and [MS-OXCMSG].

#### 2.2.3.1 PidNameHttpmailCalendar

**Canonical name:** PidNameHttpmailCalendar

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:httpmail:calendar

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:httpmail:calendar

Specifies the URL for the **calendar folder** for a particular user. This property MUST be set by the server on a user's root **mailbox** folder to identify the URL to their calendar folder.

#### 2.2.3.2 PidNameHttpmailHtmlDescription

**Canonical name:** PidNameHttpmailHtmlDescription

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:httpmail:htmldescription

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:httpmail:htmldescription

Specifies the HTML content of the message.

#### 2.2.3.3 PidNameHttpmailSendMessage

**Canonical name:** PidNameHttpmailSendMessage

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas:httpmail:sendmsg

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:httpmail:sendmsg

Specifies the mail submission URI to which outgoing mail is submitted.

#### 2.2.3.4 PidTagBody

**Canonical name:** PidTagBody

**Property name:** urn:schemas:httpmail:textdescription

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:httpmail:textdescription

Specifies the **plain text** content of the message.

The PidTagBody property is further specified in [MS-OXCMSG] section 2.2.1.20.1.

#### 2.2.3.5 PidTagHasAttachments

**Canonical name:** PidTagHasAttachments

**Property name:** urn:schemas:httpmail:hasattachment

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** urn:schemas:httpmail:hasattachment

Indicates whether or not the message has **attachments**.

The PidTagHasAttachments property is further specified in [MS-OXCMSG] section 2.2.1.2.

#### 2.2.3.6 PidTagNormalizedSubject

**Canonical name:** PidTagNormalizedSubject

**Property name:** urn:schemas:httpmail:normalizedsubject

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:httpmail:normalizedsubject

Specifies the normalized subject of the Calendar object. The normalized subject contains the subject with any prefixes, such as "Re:" and "Fwd:", removed.

The PidTagNormalizedSubject property is further specified in [MS-OXCMSG] section 2.2.1.10.

#### 2.2.3.7 PidTagPriority

**Canonical name:** PidTagPriority

**Property name:** urn:schemas:httpmail:priority

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** urn:schemas:httpmail:priority

The PidTagPriority property is further specified in [MS-OXCMSG] section 2.2.1.12.

#### 2.2.3.8 PidTagRead

**Canonical name:** PidTagRead

**Property name:** urn:schemas:httpmail:read

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** urn:schemas:httpmail:read

Indicates whether the Calendar object has been read.

#### 2.2.3.9 PidTagSubject

**Canonical name:** PidTagSubject

**Property name:** urn:schemas:httpmail:subject

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:httpmail:subject

Indicates the subject of the message. This property corresponds to the Subject **header field** of [RFC822]. This property differs from the PidNameInternetSubject property only in that all [RFC1522] encoded characters are decoded and returned as **Unicode** characters.

### 2.2.4 urn:schemas:mailheader: Namespace Properties

The urn:schemas:mailheader: namespace defines one property that is used by Calendar objects.

#### 2.2.4.1 PidNameInternetSubject

**Canonical name:** PidNameInternetSubject

**Property set:** PS_INTERNET_HEADERS {00020386-0000-0000-C000-000000000046}

**Property name:** urn:schemas:mailheader:subject

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas:mailheader:subject

Specifies the subject of the message. This property differs from the PidTagSubject property only in that all [RFC1522] encoded characters are not decoded.

### 2.2.5 urn:schemas-microsoft-com:exch-data: Namespace Properties

The urn:schemas-microsoft-com:exch-data: namespace defines three property that are used by Calendar objects.

#### 2.2.5.1 PidNameExchDatabaseSchema

**Canonical name:** PidNameExchDatabaseSchema

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas-microsoft-com:exch-data:baseschema

**Data type:** PtypMultipleString, 0x101F

**Area:** Common

**Alternate names:** urn:schemas-microsoft-com:exch-data:baseschema

Specifies an array of URLs identifying other folders within the same store that contain schema definition items.

The PidNameExchDatabaseSchema property SHOULD be used in conjunction with the PidNameExchDataSchemaCollectionReference property to define a folder's schema scope. Set this property on any folder containing schema definition items to identify subsequent folders to search for schema items. Applications SHOULD always check the current folder before proceeding to the folders identified by the PidNameExchDatabaseSchema property.

The order in which the URLs are listed in this property is significant. When searching for schema definition items, applications perform a breadth-first search for definition items within the folder's schema scope starting in the folders identified by schema-collection-ref property. Folders subsequently identified by the PidNameExchDatabaseSchema property of this schema collection

folder are then searched in the order that they appear in the property. During the search, the first encountered definition item is always used, and other subsequent definition items are ignored. Each PidNameExchDatabaseSchema folder can then in turn define its own set of PidNameExchDatabaseSchema folders. These folders are searched in the order that they appear in the property.

#### 2.2.5.2 PidNameExchDataExpectedContentClass

**Canonical name:** PidNameExchDataExpectedContentClass

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas-microsoft-com:exch-data:expected-content-class

**Data type:** PtypMultipleString, 0x101F

**Area:** Common

**Alternate names:** urn:schemas-microsoft-com:exch-data:expected-content-class

Specifies an array of names indicating the expected content classes of items within a folder.

The PidNameExchDataExpectedContentClass property is an array (list) of content class names that are designated as expected for items in the folder. This property does not itself define these content classes and does not define in what folder or folders the associated content class and property definition items are kept. Applications SHOULD search for these definitions within the folder's schema scope. Additionally, the PidNameExchDataExpectedContentClass property SHOULD NOT impose a **restriction** on what the value of an item's content class can be; it simply designates the list of names as expected for items within the folder.

The PidNameExchDataExpectedContentClass, PidNameExchDataSchemaCollectionReference, and PidNameExchDatabaseSchema properties SHOULD be used together to define a folder's schema. folders can contain separate content class and property definitions specific to a particular application.

#### 2.2.5.3 PidNameExchDataSchemaCollectionReference

**Canonical name:** PidNameExchDataSchemaCollectionReference

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas-microsoft-com:exch-data:schema-collection-ref

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** urn:schemas-microsoft-com:exch-data:schema-collection-ref

Specifies an array of names indicating the expected content classes of items within a folder.

Use this property to define the first folder within its schema scope. The value SHOULD be the URL of the first folder in which to search for schema content class and property definition items. If no value is set, the folder's schema scope SHOULD default to the **non_ipm_subtree**/Schema folder in that public **store** or mailbox store.

### 2.2.6 urn:schemas-microsoft-com:office:office Namespace Properties

The urn:schemas-microsoft-com:office:office namespace defines one property that is used by Calendar objects.

#### 2.2.6.1 PidNameKeywords

**Canonical name:** PidNameKeywords

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** urn:schemas-microsoft-com:office:office#Keywords

**Data type:** PtypMultipleString, 0x101F

**Area:** Common

**Alternate names:** urn:schemas-microsoft-com:office:office#Keywords

Specifies a list of keywords for the Calendar object. The PidNameKeywords property is further specified in [MS-OXCMSG] section 2.2.1.17.

### 2.2.7 http://schemas.microsoft.com/mapi/ Namespace Properties

The http://schemas.microsoft.com/mapi/ namespace defines some properties specifically for Calendar object support. Many of the Calendar object properties in this namespace provide access to calendar and reminder properties specified in [MS-OXOCAL] and [MS-OXORMDR].

#### 2.2.7.1 PidLidAllAttendeesString

**Canonical name:** PidLidAllAttendeesString

**Property name:** http://schemas.microsoft.com/mapi/allattendeesstring

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/allattendeesstring

The PidLidAllAttendeesString property is further specified in [MS-OXOCAL] section 2.2.1.16.

#### 2.2.7.2 PidLidAppointmentDuration

**Canonical name:** PidLidAppointmentDuration

**Property name:** http://schemas.microsoft.com/mapi/apptduration

**Data type**: PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptduration

The PidLidAppointmentDuration property is further specified in [MS-OXOCAL] section 2.2.1.7.

#### 2.2.7.3 PidLidAppointmentEndDate

**Canonical name:** PidLidAppointmentEndDate

**Property set:** PSETID_Appointment {00062002-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/apptenddate

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/apptenddate

Indicates the date the appointment ends.

#### 2.2.7.4 PidLidAppointmentEndTime

**Canonical name:** PidLidAppointmentEndTime

**Property set:** PSETID_Appointment {00062002-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/apptendtime

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/apptendtime

Indicates the time the appointment ends.

#### 2.2.7.5 PidLidAppointmentEndWhole

**Canonical name:** PidLidAppointmentEndWhole

**Property name:** http://schemas.microsoft.com/mapi/apptendwhole

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptendwhole

The PidLidAppointmentEndWhole property is further specified in [MS-OXOCAL] section 2.2.1.6.

#### 2.2.7.6 PidLidAppointmentRecur

**Canonical name:** PidLidAppointmentRecur

**Property name:** http://schemas.microsoft.com/mapi/apptrecur

**Data type:** PtypBinary, 0x0102

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptrecur

The PidLidAppointmentRecur property is further specified in [MS-OXOCAL] section 2.2.1.44.

#### 2.2.7.7 PidLidAppointmentReplyName

**Canonical name:** PidLidAppointmentReplyName

**Property name:** http://schemas.microsoft.com/mapi/apptreplyname

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptreplyname

Specifies the user who last replied to the **Meeting Request object** or **Meeting Update object**.

The PidLidAppointmentReplyName property is further specified in [MS-OXOCAL] section 2.2.3.5.

#### 2.2.7.8 PidLidAppointmentReplyTime

**Canonical name:** PidLidAppointmentReplyTime

**Property name:** http://schemas.microsoft.com/mapi/apptreplytime

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptreplytime

Specifies the date and time at which the attendee responded to a received Meeting Request object or Meeting Update object.

The PidLidAppointmentReplyTime property is further specified in [MS-OXOCAL] section 2.2.3.3.

#### 2.2.7.9 PidLidAppointmentSequence

**Canonical name:** PidLidAppointmentSequence

**Property name:** http://schemas.microsoft.com/mapi/apptsequence

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptsequence

Identifies the sequence number of a **Meeting object**.

The PidLidAppointmentSequence property is further specified in [MS-OXOCAL] section 2.2.1.1.

#### 2.2.7.10 PidLidAppointmentStartDate

**Canonical name:** PidLidAppointmentStartDate

**Property set:** PSETID_Appointment {00062002-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/apptstartdate

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/apptstartdate

Identifies the date the appointment starts.

For backward compatibility with older clients, this property SHOULD be set, and when set, it MUST be equal to the value of the PidLidAppointmentStartWhole property.

#### 2.2.7.11 PidLidAppointmentStartTime

**Canonical name:** PidLidAppointmentStartTime

**Property set:** PSETID_Appointment {00062002-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/apptstarttime

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/apptstarttime

Identifies the time the appointment starts.

#### 2.2.7.12 PidLidAppointmentStartWhole

**Canonical name:** PidLidAppointmentStartWhole

**Property name:** http://schemas.microsoft.com/mapi/apptstartwhole

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptstartwhole

Specifies the start date and time of the event; MUST be in UTC and MUST be less than the value of the PidLidAppointmentEndWhole property.

The PidLidAppointmentStartWhole property is further specified in [MS-OXOCAL] section 2.2.1.5.

#### 2.2.7.13 PidLidAppointmentStateFlags

**Canonical name:** PidLidAppointmentStateFlags

**Property name:** http://schemas.microsoft.com/mapi/apptstateflags

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptstateflags

Specifies a bit field that describes the state of the object. The flag values are specified in [MS-OXOCAL] section 2.2.1.10.

The PidLidAppointmentStateFlags property is further specified in [MS-OXOCAL] section 2.2.1.10.

#### 2.2.7.14 PidLidAppointmentSubType

**Canonical name:** PidLidAppointmentSubType

**Property name:** http://schemas.microsoft.com/mapi/apptsubtype

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/apptsubtype

Specifies whether the event is an all-day event.

The PidLidAppointmentSubType property is further specified in [MS-OXOCAL] section 2.2.1.9.

#### 2.2.7.15 PidLidAppointmentUpdateTime

**Canonical name:** PidLidAppointmentUpdateTime

**Property set:** PSETID_Appointment {00062002-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/apptupdatetime

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/apptupdatetime

Indicates the time at which the appointment was last updated.

#### 2.2.7.16 PidLidAttendeeCriticalChange

**Canonical name:** PidLidAttendeeCriticalChange

**Property name:** http://schemas.microsoft.com/mapi/attendee_critical_change

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/attendee_critical_change

Specifies the date and time at which the **meeting-related object** was sent.

The PidLidAttendeeCriticalChange property is further specified in [MS-OXOCAL] section 2.2.4.2.

#### 2.2.7.17 PidLidBusyStatus

**Canonical name:** PidLidBusyStatus

**Property name:** http://schemas.microsoft.com/mapi/busystatus

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/busystatus

Identifies the availability of a user for the event described by the object. Valid values are specified in [MS-OXOCAL] section 2.2.1.2.

The PidLidBusyStatus property is further specified in [MS-OXOCAL] section 2.2.1.2.

### 2.2.7.18 PidLidCalendarType

**Canonical name:** PidLidCalendarType

**Property name:** http://schemas.microsoft.com/mapi/calendar_type

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/calendar_type

When the Meeting Request object represents a **recurring series** or an exception, this property is the value of the CalendarType field from the apptrecur property. Otherwise, this property is not set and is assumed to be "0" (zero).

The PidLidCalendarType property is further specified in [MS-OXOCAL] section 2.2.5.11.

### 2.2.7.19 PidLidDayInterval

**Canonical name:** PidLidDayInterval

**Property name:** http://schemas.microsoft.com/mapi/day_interval

**Data type:** PtypInteger16, 0x0002

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/day_interval

Identifies the day interval for the recurrence pattern. <2>

### 2.2.7.20 PidLidDayOfMonth

**Canonical name:** PidLidDayOfMonth

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/dayofmonth

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/dayofmonth

Identifies the day of the month for the appointment or meeting.

#### 2.2.7.21 PidLidDelegateMail

**Canonical name:** PidLidDelegateMail

**Property name:** http://schemas.microsoft.com/mapi/delegate_mail

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/delegate_mail

Indicates whether a **delegate** responded to the meeting request.

#### 2.2.7.22 PidLidEndRecurrenceDate

**Canonical name:** PidLidEndRecurrenceDate

**Property set:** PSETID_Meeting {6ED8DA90-450B-101B-98DA-00AA003F1305}

**Property name:** http://schemas.microsoft.com/mapi/end_recur_date

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/end_recur_date

Identifies the end date of the recurrence range.

#### 2.2.7.23 PidLidEndRecurrenceTime

**Canonical name:** PidLidEndRecurrenceTime

**Property set:** PSETID_Meeting {6ED8DA90-450B-101B-98DA-00AA003F1305}

**Property name:** http://schemas.microsoft.com/mapi/end_recur_time

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/end_recur_time

Identifies the end time of the recurrence range.

#### 2.2.7.24 PidLidFInvited

**Canonical name:** PidLidFInvited

**Property name:** http://schemas.microsoft.com/mapi/finvited

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/finvited

The PidLidFInvited property is further specified in [MS-OXOCAL] section 2.2.3.4.

#### 2.2.7.25 PidLidFlagRequest

**Canonical name:** PidLidFlagRequest

**Property name:** http://schemas.microsoft.com/mapi/request

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/request

The PidLidFlagRequest property is further specified in [MS-OXCMAIL] section 2.1.2.25.

#### 2.2.7.26 PidLidFOthersAppointment

**Canonical name:** PidLidFOthersAppointment

**Property set:** PSETID_Appointment {00062002-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/fothersappt

**Data type:** PtypBoolean, 0x000B

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/fothersappt

#### 2.2.7.27 PidLidICalendarDayOfWeekMask

**Canonical name:** PidLidICalendarDayOfWeekMask

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/dayofweekmask

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/dayofweekmask

Identifies the day of the week for the appointment or meeting.

#### 2.2.7.28 PidLidIntendedBusyStatus

**Canonical name:** PidLidIntendedBusyStatus

**Property name:** http://schemas.microsoft.com/mapi/intendedbusystatus

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/intendedbusystatus

The PidLidIntendedBusyStatus property is further specified in [MS-OXOCAL] section 2.2.5.4.

#### 2.2.7.29 PidLidIsException

**Canonical name:** PidLidIsException

**Property name:** http://schemas.microsoft.com/mapi/is_exception

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/is_exception

The PidLidIsException property is further specified in [MS-OXOCAL] section 2.2.1.35.

#### 2.2.7.30 PidLidIsRecurring

**Canonical name:** PidLidIsRecurring

**Property name:** http://schemas.microsoft.com/mapi/is_recurring

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/is_recurring

The PidLidIsRecurring property is further specified in [MS-OXOCAL] section 2.2.1.13.

#### 2.2.7.31 PidLidIsSilent

**Canonical name:** PidLidIsSilent

**Property name:** http://schemas.microsoft.com/mapi/is_silent

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/is_silent

The PidLidIsSilent property is further specified in [MS-OXOCAL] section 2.2.6.7.

#### 2.2.7.32 PidLidMeetingWorkspaceUrl

**Canonical name:** PidLidMeetingWorkspaceUrl

**Property name:** http://schemas.microsoft.com/mapi/meetingworkspaceurl

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/meetingworkspaceurl

The PidLidMeetingWorkspaceUrl property is further specified in [MS-OXOCAL] section 2.2.1.7.

### 2.2.7.33 PidLidMonthInterval

**Canonical name:** PidLidMonthInterval

**Property name:** http://schemas.microsoft.com/mapi/month_interval

**Data type:** PtypInteger16, 0x0002

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/month_interval

Indicates the monthly interval of the appointment or meeting. <3>

### 2.2.7.34 PidLidMonthOfYear

**Canonical name:** PidLidMonthOfYear

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/monthofyear

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/monthofyear

Indicates the month of the year that the appointment or meeting occurs.

### 2.2.7.35 PidLidMonthOfYearMask

**Canonical name:** PidLidMonthOfYearMask

**Property set:** PSETID_Meeting {6ED8DA90-450B-101B-98DA-00AA003F1305}

**Property name:** http://schemas.microsoft.com/mapi/moy_mask

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/moy_mask

Indicates the month of the year that the appointment or meeting occurs.

### 2.2.7.36 PidLidNoEndDateFlag

**Canonical name:** PidLidNoEndDateFlag

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/fnoenddate

**Data type:** PtypBoolean, 0x000B

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/fnoenddate

Indicates whether the recurrence pattern has an end date. **TRUE** indicates there is no end date, **FALSE** indicates there is an end date.

### 2.2.7.37 PidLidNonSendableBcc

**Canonical name:** PidLidNonSendableBcc

**Property name:** http://schemas.microsoft.com/mapi/nonsendablebcc

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/nonsendablebcc

The PidLidNonSendableBcc property is further specified in [MS-OXOCAL] section 6.

### 2.2.7.38 PidLidNonSendableCc

**Canonical name:** PidLidNonSendableCc

**Property name:** http://schemas.microsoft.com/mapi/nonsendablecc

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/nonsendablecc

The PidLidNonSendableCc property is further specified in [MS-OXOCAL] section 6.

### 2.2.7.39 PidLidNonSendableTo

**Canonical name:** PidLidNonSendableTo

**Property name:** http://schemas.microsoft.com/mapi/nonsendableto

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/nonsendableto

The PidLidNonSendableTo property is further specified in [MS-OXOCAL] section 6.

### 2.2.7.40 PidLidNonSendBccTrackStatus

**Canonical name:** PidLidNonSendBccTrackStatus

**Property name:** http://schemas.microsoft.com/mapi/nonsendbcctrackstatus

**Data type:** PtypMultipleInteger32, 0x1003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/nonsendbcctrackstatus

The PidLidNonSendBccTrackStatus property is further specified in [MS-OXOCAL] section 6.

#### 2.2.7.41 PidLidNonSendCcTrackStatus

**Canonical name:** PidLidNonSendCcTrackStatus

**Property set:**

**Property name:** http://schemas.microsoft.com/mapi/nonsendcctrackstatus

**Data type:** PtypMultipleInteger32, 0x1003

**Area:**

**Alternate names:** http://schemas.microsoft.com/mapi/nonsendcctrackstatus

The PidLidNonSendCcTrackStatus property is further specified in [MS-OXOCAL] section 6.

#### 2.2.7.42 PidLidNonSendToTrackStatus

**Canonical name:** PidLidNonSendToTrackStatus

**Property name:** http://schemas.microsoft.com/mapi/nonsendtotrackstatus

**Data type:** PtypMultipleInteger32, 0x1003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/nonsendtotrackstatus

The PidLidNonSendToTrackStatus property is further specified in [MS-OXOCAL] section 6.

#### 2.2.7.43 PidLidOccurrences

**Canonical name:** PidLidOccurrences

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/occurrences

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/occurrences

Indicates the number of occurrences in the recurring appointment or meeting.

#### 2.2.7.44 PidLidOldRecurrenceType

**Canonical name:** PidLidOldRecurrenceType

**Property set:** PSETID_Meeting {6ED8DA90-450B-101B-98DA-00AA003F1305}

**Property name:** http://schemas.microsoft.com/mapi/recur_type

**Data type:** PtypInteger16, 0x0002

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/recur_type

Indicates the recurrence pattern for the appointment or meeting.

The following table lists the valid values:

| Description | Value |
|---|---|
| The appointment occurs only once. | -1 |
| The appointment recurs daily. | 0 |
| The appointment recurs weekly. | 1 |
| The appointment recurs monthly. | 2 |
| The appointment recurs every nth month. | 3 |
| The appointment recurs yearly. | 5 |
| The appointment recurs every nth year. | 6 |

### 2.2.7.45 PidLidOptionalAttendees

**Canonical name:** PidLidOptionalAttendees

**Property name:** http://schemas.microsoft.com/mapi/optional_attendees

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/optional_attendees

The PidLidOptionalAttendees property is further specified in [MS-OXPROPS] section 2.196. <4>

### 2.2.7.46 PidLidOwnerCriticalChange

**Canonical name:** PidLidOwnerCriticalChange

**Property name:** http://schemas.microsoft.com/mapi/owner_critical_change

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/owner_critical_change

The PidLidOwnerCriticalChange property is further specified in [MS-OXOCAL] section 2.2.1.34.

### 2.2.7.47 PidLidOwnerName

**Canonical name:** PidLidOwnerName

**Property set:** PSETID_Appointment {00062002-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/ownername

**Data type:** PtypString, 0x001F

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/ownername

Indicates the name of the owner of the mailbox.

#### 2.2.7.48 PidLidRecurrenceDuration

**Canonical name:** PidLidRecurrenceDuration

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/recurduration

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/recurduration

Identifies the length, in minutes, of the appointment or meeting.

#### 2.2.7.49 PidLidRecurrencePattern

**Canonical name:** PidLidRecurrencePattern

**Property name:** http://schemas.microsoft.com/mapi/recurpattern

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/recurpattern

The PidLidRecurrencePattern property is further specified in [MS-OXOCAL] section 2.2.1.46.

#### 2.2.7.50 PidLidRecurrenceType

**Canonical name:** PidLidRecurrenceType

**Property name:** http://schemas.microsoft.com/mapi/recurtype

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/recurtype

The PidLidRecurrenceType property is further specified in [MS-OXOCAL] section 2.2.1.45.

#### 2.2.7.51 PidLidRecurring

**Canonical name:** PidLidRecurring

**Property name:** http://schemas.microsoft.com/mapi/recurring

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/recurring

The PidLidRecurring property is further specified in [MS-OXOCAL] section 2.2.1.12.

#### 2.2.7.52 PidLidReminderDelta

**Canonical name:** PidLidReminderDelta

**Property name:** http://schemas.microsoft.com/mapi/reminderdelta

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/reminderdelta

The PidLidReminderDelta property is further specified in [MS-OXORMDR] section 2.2.1.3.

#### 2.2.7.53 PidLidReminderFileParameter

**Canonical name:** PidLidReminderFileParameter

**property name:** http://schemas.microsoft.com/mapi/reminderfileparam

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/reminderfileparam

The PidLidReminderFileParameter property is further specified in [MS-OXORMDR] section 2.2.1.7.

#### 2.2.7.54 PidLidReminderOverride

**Canonical name:** PidLidReminderOverride

**Property name:** http://schemas.microsoft.com/mapi/reminderoverride

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/reminderoverride

The PidLidReminderOverride property is further specified in [MS-OXORMDR] section 2.2.1.5.

#### 2.2.7.55 PidLidReminderPlaySound

**Canonical name:** PidLidReminderPlaySound

**Property name:** http://schemas.microsoft.com/mapi/reminderplaysound

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/reminderplaysound

The PidLidReminderPlaySound property is further specified in [MS-OXORMDR] section 2.2.1.6.

#### 2.2.7.56 PidLidReminderSet

**Canonical name:** PidLidReminderSet

**Property name:** http://schemas.microsoft.com/mapi/reminderset

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/reminderset

The PidLidReminderSet property is further specified in [MS-OXORMDR] section 2.2.1.1.

#### 2.2.7.57 PidLidReminderSignalTime

**Canonical name:** PidLidReminderSignalTime

**Property name:** http://schemas.microsoft.com/mapi/remindernexttime

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/remindernexttime

The PidLidReminderSignalTime property is further specified in [MS-OXORMDR] section 2.2.1.2.

#### 2.2.7.58 PidLidReminderTime

**Canonical name:** PidLidReminderTime

**Property name:** http://schemas.microsoft.com/mapi/remindertime

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/remindertime

The PidLidReminderTime property is further specified in [MS-OXOCAL] section 2.2.1.4.

#### 2.2.7.59 PidLidReminderTimeDate

**Canonical name:** PidLidReminderTimeDate

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**property name:** http://schemas.microsoft.com/mapi/remindertimedate

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/remindertimedate

Indicates the time and date of the reminder for the appointment or meeting.

### 2.2.7.60 PidLidReminderTimeTime

**Canonical name:** PidLidReminderTimeTime

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/remindertimetime

**Data type:** PtypTime, 0x0040

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/remindertimetime

Indicates the time of the reminder for the appointment or meeting.

### 2.2.7.61 PidLidReminderType

**Canonical name:** PidLidReminderType

**Property name:** http://schemas.microsoft.com/mapi/remindertype

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/remindertype

The PidLidReminderType property is further specified in [MS-OXORMDR] section 2.2.1.9.

### 2.2.7.62 PidLidRemoteStatus

**Canonical name:** PidLidRemoteStatus

**Property set:** PSETID_Common {00062008-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/mapi/remotestatus

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/remotestatus

Indicates the remote status of the calendar item.

The following table lists the valid values for this property:

| Description | Value |
|---|---|
| No status | 0 |
| Unmarked | 1 |
| Marked for download | 2 |
| Marked for copy | 3 |
| Marked for delete | 4 |

#### 2.2.7.63 PidLidRequiredAttendees

**Canonical name:** PidLidRequiredAttendees

**Property name:** http://schemas.microsoft.com/mapi/required_attendees

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/required_attendees

Identifies required attendees for the appointment or meeting. <5>

#### 2.2.7.64 PidLidResourceAttendees

**Canonical name:** PidLidResourceAttendees

**Property name:** http://schemas.microsoft.com/mapi/resource_attendees

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/resource_attendees

Identifies resource attendees for the appointment or meeting. <6>

#### 2.2.7.65 PidLidResponseStatus

**Canonical name:** PidLidResponseStatus

**Property name:** http://schemas.microsoft.com/mapi/responsestatus

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/responsestatus

The PidLidResponseStatus property is further specified in [MS-OXOCAL] section 2.2.1.11.

#### 2.2.7.66 PidLidStartRecurrenceDate

**Canonical name:** PidLidStartRecurrenceDate

**Property set:** PSETID_Meeting {6ED8DA90-450B-101B-98DA-00AA003F1305}

**Property name:** http://schemas.microsoft.com/mapi/start_recur_date

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/start_recur_date

Identifies the start date of the recurrence pattern. <7>

#### 2.2.7.67 PidLidStartRecurrenceTime

**Canonical name:** PidLidStartRecurrenceTime

**Property set:** PSETID_Meeting {6ED8DA90-450B-101B-98DA-00AA003F1305}

**Property name:** http://schemas.microsoft.com/mapi/start_recur_time

**Data type:** PtypInteger32, 0x0003

**Area:** Calendar

**Alternate names:** http://schemas.microsoft.com/mapi/start_recur_time

Identifies the start time of the recurrence pattern. <8>

#### 2.2.7.68 PidLidTimeZone

**Canonical name:** PidLidTimeZone

**Property name:** http://schemas.microsoft.com/mapi/time_zone

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/time_zone

The PidLidTimeZone property is further specified in [MS-OXOCAL] section 2.2.4.4.

#### 2.2.7.69 PidLidTimeZoneDescription

**Canonical name:** PidLidTimeZoneDescription

**Property name:** http://schemas.microsoft.com/mapi/timezonedesc

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/timezonedesc

The PidLidTimeZoneDescription property is further specified in [MS-OXOCAL] section 2.2.1.40.

#### 2.2.7.70 PidLidTimeZoneStruct

**Canonical name:** PidLidTimeZoneStruct

**Property name:** http://schemas.microsoft.com/mapi/timezonestruct

**Data type:** PtypBinary, 0x0102

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/timezonestruct

The PidLidTimeZoneStruct property is further specified in [MS-OXOCAL] section 2.2.1.39.

#### 2.2.7.71 PidLidWeekInterval

**Canonical name:** PidLidWeekInterval

**Property name:** http://schemas.microsoft.com/mapi/week_interval

**Data type:** PtypInteger16, 0x0002

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/week_interval

Identifies the number of weeks that occur between each meeting. <9>

#### 2.2.7.72 PidLidWhere

**Canonical name:** PidLidWhere

**Property name:** http://schemas.microsoft.com/mapi/where

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/where

The PidLidWhere interval is further specified in [MS-OXOCAL] section 2.2.4.3.

#### 2.2.7.73 PidLidYearInterval

**Canonical name:** PidLidYearInterval

**Property name:** http://schemas.microsoft.com/mapi/year_interval

**Data type:** PtypInteger16, 0x0002

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/year_interval

Indicates the yearly interval of the appointment or meeting. <10>

#### 2.2.7.74 PidTagEndDate

**Canonical name:** PidTagEndDate

**Property name:** http://schemas.microsoft.com/mapi/end_date

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/end_date

The PidTagEndDate property is further specified in [MS-OXOCAL] section 2.2.1.31.

#### 2.2.7.75 PidTagOwnerAppointmentId

**Canonical name:** PidTagOwnerAppointmentId

**Property name:** http://schemas.microsoft.com/mapi/owner_appt_id

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/owner_appt_id

The PidTagOwnerAppointmentId property is further specified in [MS-OXOCAL] section 2.2.1.29.

#### 2.2.7.76 PidTagResponseRequested

**Canonical name:** PidTagResponseRequested

**Property name:** http://schemas.microsoft.com/mapi/response_requested

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/response_requested

The PidTagResponseRequested property is further specified in [MS-OXOCAL] section 2.2.1.36.

#### 2.2.7.77 PidTagStartDate

**Canonical name:** PidTagStartDate

**Property name:** http://schemas.microsoft.com/mapi/start_date

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/mapi/start_date

The PidTagStartDate property is further specified in [MS-OXOCAL] section 2.2.1.30.

### 2.2.8 http://schemas.microsoft.com/exchange Namespace Properties

The http://schemas.microsoft.com/exchange/ namespace defines some properties specifically for Calendar object support. Some of the Calendar object properties in this namespace provide access to calendar properties specified in [MS-OXOCAL].

#### 2.2.8.1 PidNameExchangeIntendedBusyStatus

**Canonical name:** PidNameExchangeIntendedBusyStatus

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/exchange/intendedbusystatus

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/intendedbusystatus

Specifies the busy status of the user during an appointment or meeting.

#### 2.2.8.2 PidNameExchangeModifyExceptionStructure

**Canonical name:** PidNameExchangeModifyExceptionStructure

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/exchange/modifyexceptionstruct

**Data type:** PtypBinary, 0x0102

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/modifyexceptionstruct

Specifies a structure that modifies an exception to the recurrence.

#### 2.2.8.3 PidNameExchangeNoModifyExceptions

**Canonical name:** PidNameExchangeNoModifyExceptions

**property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/exchange/nomodifyexceptions

**Data type:** PtypBoolean, 0x000B

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/nomodifyexceptions

Indicates whether exceptions to a recurring appointment can be modified. **TRUE** indicates that no exceptions are allowed, **FALSE** indicates that exceptions are allowed.

#### 2.2.8.4 PidNameExchangePatternEnd

**Canonical name:** PidNameExchangePatternEnd

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/exchange/patternend

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/patternend

Identifies the maximum time when an instance of a recurring appointment ends. If there are no exceptions, this is the end time of the last instance.

#### 2.2.8.5 PidNameExchangePatternStart

**Canonical name:** PidNameExchangePatternStart

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/exchange/patternstart

**Data type:** PtypTime, 0x0040

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/patternstart

Identifies the absolute minimum time when an instance of a recurring appointment starts. If there are no exceptions, this is the start time of the first instance.

#### 2.2.8.6 PidNameExchangeReminderInterval

**Canonical name:** PidNameExchangeReminderInterval

**Property set:** PS_PUBLIC_STRINGS {00020329-0000-0000-C000-000000000046}

**Property name:** http://schemas.microsoft.com/exchange/reminderinterval

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/reminderinterval

Identifies the time, in seconds, between reminders.

#### 2.2.8.7 PidTagContainerClass

**Canonical name:** PidTagContainerClass

**Property name:** http://schemas.microsoft.com/exchange/outlookfolderclass

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/outlookfolderclass

Identifies the container class for the Calendar folder.

The PidTagContainerClass property is further specified in [MS-OXOCAL] section 2.2.9.1.

#### 2.2.8.8 PidTagExchangeNTSecurityDescriptor

**Canonical name:** PidTagExchangeNTSecurityDescriptor

**Property name:** http://schemas.microsoft.com/exchange/ntsecuritydescriptor

**Data type:** PtypBinary, 0x0102

**Area:** Calendar, Document

**Alternate names:** http://schemas.microsoft.com/exchange/ntsecuritydescriptor

Indicates the security descriptor for the item. The security descriptor SHOULD contain the item's primary owner and group, and a discretionary ACL granting and denying various rights to particular users and groups. Applications MUST NOT manipulate the security descriptor directly.

#### 2.2.8.9 PidTagFlatUrlName

**Canonical name:** PidTagFlatUrlName

**Property name:** http://schemas.microsoft.com/exchange/permanenturl

**Data type:** PtypString, 0x001F

**Area:** Calendar, Document

**Alternate names:** http://schemas.microsoft.com/exchange/permanenturl

Specifies the unique identifier for an item across the store. This value SHOULD NOT change as long as the item remains in the same folder. The PidTagFlatUrlName property contains the ID of the parent folder of the item, which changes when the item is moved to a different folder or deleted. Changing a property on an item SHOULD NOT change the PidTagFlatUrlName property and neither will adding more items to the folder with the same display name or message subject.

This property corresponds to the **MS-Exchange-Permanent-URL** header value.

#### 2.2.8.10 PidTagMessageClass

**Canonical name:** PidTagMessageClass

**Property name:** http://schemas.microsoft.com/exchange/outlookmessageclass

**Data type:** PtypString, 0x001F

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/outlookmessageclass

Identifies the type of Calendar object.

The PidTagMessageClass property is further specified in [MS-OXOCAL] section 2.2.2.1.

#### 2.2.8.11 PidTagMid

**Canonical name:** PidTagMid

**Property name:** http://schemas.microsoft.com/exchange/mid

**Data type:** PtypInteger64, 0x0014

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/mid

Specifies the **message ID (MID)**.

The PidTagMid property is further specified in [MS-OXCFXICS] section 2.2.1.2.1.

#### 2.2.8.12 PidTagSensitivity

**Canonical name:** PidTagSensitivity

**Property name:** http://schemas.microsoft.com/exchange/sensitivity

**Data type:** PtypInteger32, 0x0003

**Area:** Common

**Alternate names:** http://schemas.microsoft.com/exchange/sensitivity

Identifies message and appointment sensitivity. The following table lists valid values:

| Description | Value |
|---|---|
| None | 0 |
| Personal | 1 |
| Private | 2 |
| Confidential | 3 |

The PidTagSensitivity property is further specified in [MS-OXCMSG] section 2.2.1.13.

# 3 Protocol Details

## 3.1 Client and Server Details

### 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 described in this document.

#### 3.1.1.1 Calendar

**Calendar:** A WebDAV collection containing WebDAV resources that represent individual calendar events. A calendar collection can be conceptualized as a folder containing multiple calendar events. Both the collection and the **resource** have properties on them. A user can have multiple Calendar folders.

#### 3.1.1.2 Free/Busy Data

**Free/Busy Data:** The client SHOULD publish their free/busy data to a specified location on the server by using the **vfreebusy** component specified in section 2.2.2.44. The server can also modify the free/busy data. Every user in the directory SHOULD have an attribute that clients can use to find out where to query a user's free/busy data. <11>

#### 3.1.1.3 Recurrence

**Recurrence:** A recurring event is normally modeled as a single resource with properties that define the recurrence pattern. Exceptions to the recurrence pattern are also modeled as resources.

To determine whether an item is an appointment, check the **DAV:content-class** property. To determine whether an appointment is a recurring master or a recurrence exception, check the **urn:schemas:calendar:instancetype** property. To determine what recurring master an exception is related to, check the **urn:schemas:calendar:recurrenceid** property which points to the recurring master.

The recurrence pattern engine is modeled on the iCalendar protocol [RFC2447], and uses the PidNameICalendarRecurrenceDate, PidTagICalendarStartTime, PidNameICalendarRecurrenceRule, PidNameCalendarExceptionDate, and PidNameCalendarExceptionRule properties from the urn:schemas:calendar: namespace to define a recurrence pattern.

The server agent SHOULD expand all recurring appointments. This means that every instance of a recurring item is a separate object in a Calendar folder; thus WebDAV can access each item individually. Properties on the item indicate whether it is a master event, instance event or a stand-alone event.

Note that this does not mean that the client SHOULD access each item individually in all cases. For example, to change the location of a recurring meeting for all recurrences, only the recurring master appointment needs to be changed. Clients can also add recurrences or exceptions which modify the recurrence master.

### 3.1.2 Timers

None.

### 3.1.3 Initialization

None.

### 3.1.4 Higher-Layer Triggered Events

#### 3.1.4.1 Discovery

The client uses the **urn:schemas:httpmail:calendar** property to retrieve the URL of the user's main Calendar folder from the server.

#### 3.1.4.2 Creating Calendar Objects

To create a Calendar object, the client uses the **POST** or **PUT** method to add a Calendar object to their Calendar folder.

When inviting other attendees, the client can check the other user's free/busy status to determine a meeting start and end time. The user then uses the **POST** or **PUT** method to add the Calendar object to the user's folder.

#### 3.1.4.3 Changing Calendar Objects

To change a Calendar object, the client uses **GET**, **SEARCH**, or **PROPFIND** to retrieve the contents or particular properties for a calendar. The results are returned as a set of properties that provide the start and end times of appointments, subjects, locations, or any of the properties specified in section 2.2.

The user changes the properties of the appointment using **PUT** or **PROPPATCH**.

#### 3.1.4.4 Sending Meeting Requests

Clients use the **POST** or **PUT** method to create new meeting requests. Meeting requests can be sent to other **recipients** by using the mail sending mechanism specified in [MS-XWDMAIL].

#### 3.1.4.5 Calendar Delegation

ACLs, as specified in [RFC3744] are used to set calendar access **permissions** so that a user can allow another individual to read or write Calendar objects to their calendar.

#### 3.1.4.6 Recurring Appointments

The server SHOULD perform recurrence expansion automatically when any request has both a start and end bracket in the **SEARCH** method query.

If clients do not want the server to expand recurrences, the client can use the **urn:schemas:calendar:instancetype** property to restrict queries. To retrieve only recurring master appointments, the client queries the Calendar folder for instancetype = "1".

To retrieve recurrence exception information, the client has to download the entire stream of the appointment master to see the details of the exception.

### 3.1.5 Message Processing Events and Sequencing Rules

The following section specifies extensions to the existing WebDAV methods specified in [RFC4918]. These methods SHOULD be processed as specified in [RFC4918], except for any exceptions specified in this section.

#### 3.1.5.1 GET Method

Use the **GET** method, as specified in [RFC4918] section 9.4, to retrieve events from a Calendar folder.

##### 3.1.5.1.1 Accept Header

The default format supported by the store SHOULD be the iCalendar standard [RFC2445].

##### 3.1.5.1.2 GET Free/Busy Information

Free/busy data can be retrieved by using the **vfreebusy** component, as specified in section 2.2.2.44.

The client has two ways to determine which URL to query to retrieve the free/busy information:

- The location of the free/busy information for a user's calendar SHOULD be published in a directory attribute. <12> This directory attribute SHOULD be queried through **LDAP**.
- The location of the free/busy information that corresponds to a Calendar folder SHOULD be published in the PidLidFreeBusyLocation property (urn:schemas:calendar:fburl) on the Calendar folder itself, as specified in section 2.2.3.2. If the value of the property is blank, then there is no public Free/busy information for that calendar. The default calendar for a user SHOULD have the same Free/busy location defined in the directory attribute. <13>

#### 3.1.5.2 POST Method

Use the **POST** method, as specified in [RFC2616] section 9.5, to add new Calendar objects or update existing Calendar objects in the Calendar folder.

#### 3.1.5.3 PROPFIND Method

Use the **PROPFIND** method, as specified in [RFC4918] section 9.1, to retrieve one or more properties from the calendar collection or a resource item.

#### 3.1.5.4 PROPPATCH Method

Use the **PROPPATCH** method, as specified in [RFC4918] section 9.2, to set one or more properties on the calendar collection or a resource item.

#### 3.1.5.5 PUT Method

Use the **PUT** method, as specified in [RFC4918] section 9.7, to create new Calendar objects or update existing Calendar objects in the Calendar folder. To add new Calendar objects another user or resource, the **PUT** request is sent to the address for that user or resource's calendar. The PidTagExchangeNTSecurityDescriptor property is used to restrict access to Calendar folders for resources.

As specified in [RFC4918] section 9.7.2, the **PUT** method cannot be used to create new collections, only resources.

#### 3.1.5.6 SEARCH Method

Use the **SEARCH** method, as specified in [MS-WDVSE] section 2.2.4, to list the contents of a calendar folder. The content of the folder is returned as URLs.

### 3.1.6 Timer Events

None.

### 3.1.7 Other Local Events

None.

# 4 Protocol Examples

## 4.1 Creating a new calendar object

In the following example, the client connects to the server using WebDAV and uses the **PROPPATCH** method to create a new Calendar object.

```
PROPPATCH /exchange/administrator/calendar/meeting.eml HTTP/1.1
Content-type: text/xml
Translate: f

<?xml version="1.0"?>
<a:propertyupdate
      xmlns:a="DAV:"
      xmlns:c="urn:schemas:calendar:"
      xmlns:dt="urn:uuid:c2f41010-65b3-11d1-a29f-00aa00c14882/"
      xmlns:e="urn:schemas:httpmail:"
      xmlns:f="http://schemas.microsoft.com/exchange/"
      xmlns:j="urn:schemas:mailheader:" >
   <a:set>
      <a:prop>
         <e:textdescription>The body text</e:textdescription>
         <a:contentclass>urn:content-classes:appointment</a:contentclass>
         <f:outlookmessageclass>IPM.Appointment</f:outlookmessageclass>
         <c:busystatus>BUSY</c:busystatus>
         <c:dtstart dt:dt="dateTime.tz">2009-08-24T15:00:00.000Z</c:dtstart>
         <c:location>here</c:location>
         <j:subject>Simple meeting</j:subject>
         <c:duration dt:dt="int">1800</c:duration>
         <c:dtend dt:dt="dateTime.tz">2009-08-24T15:30:00.000Z</c:dtend>
       </>
   </>
</>
```

## 4.2 Discover the calendar folder

### 4.2.1 Request

In the following example, the client connects to a calendar server using WebDAV and uses the **PROPFIND** method to retrieve the URL of the sendmsg and calendar folder.

```
PROPFIND /exchange/local HTTP/1.1
Content-Type: text/xml
Depth: 0

<?xml version="1.0" encoding="utf-8"?>
<a:propfind xmlns:a="DAV:">
    <a:prop xmlns:m="urn:schemas:httpmail:">
        <m:sendmsg />
        <m:calendar />
    </a:prop>
</a:propfind>
```

### 4.2.2 Response

In the response message, the value of the <d:calendar> property contains the URL for the Calendar folder.

- HTTP/1.1 207 Multi-Status
- Cache-Control: no-cache
- Transfer-Encoding: chunked
- Content-Type: text/xml
- Accept-Ranges: rows
- Server: Microsoft-IIS/7.0
- MS-WebStorage: 08.01.10240
- X-Powered-By: ASP.NET
- Date: Fri, 19 Sep 2008 21:42:37 GMT

```
<?xml version="1.0"?>
<a:multistatus xmlns:b="urn:uuid:c2f41010-65b3-11d1-a29f-00aa00c14882/"
xmlns:d="urn:schemas:httpmail:" xmlns:c="xml:" xmlns:a="DAV:">
    <a:response>
        <a:href>https://SERVER01/exchange/local/</a:href>
        <a:propstat>
            <a:status>HTTP/1.1 200 OK</a:status>
            <a:prop>
                <d:sendmsg>https://SERVER01/exchange/local/%23%23DavMailSubmission
URI%23%23/</d:sendmsg>
                <d:calendar>https://SERVER01/exchange/local/Calendar</d:calendar>
            </a:prop>
        </a:propstat>
    </a:response>
</a:multistatus>
```

## 4.3 Retrieve the contents of the calendar folder

### 4.3.1 Request

In the following example, the client uses the **SEARCH** method ([MS-WDVSE] section 2.2.4) to retrieve the contents of the calendar folder in the default iCalendar format [RFC2445].

```
SEARCH /exchange/local/Calendar HTTP/1.1
Content-Type: text/xml

<?xml version="1.0"?>
<g:searchrequest xmlns:g="DAV:">
    <g:sql>Select * FROM Scope('SHALLOW TRAVERSAL OF "/exchange/local/Calendar"')</g:sql>
</g:searchrequest>
```

### 4.3.2 Response

The response is returned as a set of properties providing the start and end times of three appointments:

- A recurring appointment on Mondays.
- An appointment on Saturday.
- An appointment on Friday.

```
HTTP/1.1 207 Multi-Status
Cache-Control: no-cache
Transfer-Encoding: chunked
Content-Type: text/xml
Accept-Ranges: rows
Server: Microsoft-IIS/7.0
MS-WebStorage: 08.01.10240
X-Powered-By: ASP.NET
Date: Fri, 19 Sep 2008 21:47:30 GMT

<?xml version="1.0"?>
<a:multistatus xmlns:b="urn:uuid:c2f41010-65b3-11d1-a29f-00aa00c14882/"
xmlns:e="urn:schemas:httpmail:" xmlns:j="urn:schemas:mailheader:" xmlns:c="xml:"
xmlns:f="http://schemas.microsoft.com/exchange/" xmlns:i="urn:schemas-microsoft-
com:office:office" xmlns:k="http://schemas.microsoft.com/repl/"
xmlns:d="urn:schemas:calendar:" xmlns:g="urn:schemas:contacts:" xmlns:h="urn:schemas-
microsoft-com:exch-data:" xmlns:a="DAV:">
<!--Calendar configuration information has been removed from -->
<!--this example.-->
<!--The following is the information for the recurring -->
<!--Monday appointment-->
    <a:response>
        <a:href>https://SERVER01/exchange/local/Calendar/Recurring%20Monday%20Appt.EML</a:hre
f>
        <a:propstat>
            <a:status>HTTP/1.1 200 OK</a:status>
            <a:prop>
                <d:alldayevent b:dt="boolean">0</d:alldayevent>
                <e:textdescription>
                </e:textdescription>
                <a:contentclass>urn:content-classes:appointment</a:contentclass>
                <d:responserequested b:dt="boolean">1</d:responserequested>
                <a:supportedlock>
                    <lockentry xmlns="DAV:">
                        <locktype>
                            <transaction>
                                <groupoperation />
                            </transaction>
                        </locktype>
                        <lockscope>
                            <local />
                        </lockscope>
                    </lockentry>
                </a:supportedlock>
                <d:busystatus>BUSY</d:busystatus>
                <f:permanenturl>https://SERVER01/exchange/local/-FlatUrlSpace-
/1c5a707ee8157a47bfce2b746a3dba25-12c2720/878040245f8fd545a99a34a3d65eae4b-
12c0403</f:permanenturl>
```

```
                <a:getcontenttype>message/rfc822</a:getcontenttype>
                <a:id>AQEAAAABLCcgBAAAAAEsBAMAAAAA</a:id>
                <f:mid b:dt="i8">217347064827215876</f:mid>
                <d:uid>040000008200E00074C5B7101A82E00800000000090556E824E1AC90100000000000000
00100000001267AC06562E3A4EBA4627A617D09DE3</d:uid>
                <a:isfolder b:dt="boolean">0</a:isfolder>
                <a:resourcetype />
                <d:method>REQUEST</d:method>
                <a:getetag>"1c5a707ee8157a47bfce2b746a3dba250000012c30ab"</a:getetag>
                <d:timezone>BEGIN:VTIMEZONE TZID:GMT -0800 (Standard) / GMT -0700 (Daylight)
BEGIN:STANDARD DTSTART:19671105T020000 RRULE:FREQ=YEARLY;BYDAY=1SU;BYMONTH=11 TZOFFSETFROM:-
0700 TZOFFSETTO:-0800 END:STANDARD BEGIN:DAYLIGHT DTSTART:19670312T020000
RRULE:FREQ=YEARLY;BYDAY=2SU;BYMONTH=3 TZOFFSETFROM:-0800 TZOFFSETTO:-0700 END:DAYLIGHT
END:VTIMEZONE</d:timezone>
                <lockdiscovery xmlns="DAV:">
                </lockdiscovery>
                <f:outlookmessageclass>IPM.Appointment</f:outlookmessageclass>
                <a:creationdate b:dt="dateTime.tz">2008-09-19T18:54:34.903Z</a:creationdate>
                <d:rrule b:dt="mv.string">
                    <c:v>FREQ=WEEKLY;INTERVAL=1;BYDAY=MO;WKST=SU</c:v>
                </d:rrule>
                <f:ntsecuritydescriptor
b:dt="bin.base64">CAAEAAAAAAABAC+MMAAAAEwAAAAAAAAAFAAAAAIAHAABAAAAARAUAL8PHwABAQAAAAAABQcAAAA
BBQAAAAAABRUAAAD0l0oajmNmy/EPr4pXBAAAAQUAAAAAAAUVAAAA9JdKGo5jZsvxD6+KAQIAAA==</f:ntsecurityde
scriptor>
                <d:lastmodified b:dt="dateTime.tz">2008-09-19T18:54:34.903Z</d:lastmodified>
                <d:dtstart b:dt="dateTime.tz">2008-09-22T17:00:00.000Z</d:dtstart>
                <d:location>
                </d:location>
                <j:subject>Recurring Monday Appt</j:subject>
                <d:duration b:dt="int">3600</d:duration>
                <e:htmldescription>&lt;!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN"&gt;
&lt;HTML&gt; &lt;HEAD&gt; &lt;META NAME="Generator" CONTENT="MS Exchange Server version
08.01.0240.003"&gt; &lt;TITLE&gt;Recurring Monday Appt&lt;/TITLE&gt; &lt;/HEAD&gt;
&lt;BODY&gt; &lt;!-- Converted from text/rtf format --&gt; &lt;P DIR=LTR&gt;&lt;SPAN
LANG="en-us"&gt;&lt;/SPAN&gt;&lt;/P&gt; &lt;/BODY&gt; &lt;/HTML&gt;</e:htmldescription>
                <a:ishidden b:dt="boolean">0</a:ishidden>
                <a:parentname>https://SERVER01/exchange/local/Calendar/</a:parentname>
                <d:meetingstatus>TENTATIVE</d:meetingstatus>
                <e:subject>Recurring Monday Appt</e:subject>
                <a:getcontentlength b:dt="int">6735</a:getcontentlength>
                <e:normalizedsubject>Recurring Monday Appt</e:normalizedsubject>
                <a:isstructureddocument b:dt="boolean">0</a:isstructureddocument>
                <k:repl-uid>rid:878040245f8fd545a99a34a3d65eae4b0000012c0403</k:repl-uid>
                <d:reminderoffset b:dt="int">900</d:reminderoffset>
                <a:displayname>Recurring Monday Appt.EML</a:displayname>
                <a:href>https://SERVER01/exchange/local/Calendar/Recurring%20Monday%20Appt.EM
L</a:href>
                <a:isreadonly b:dt="boolean">0</a:isreadonly>
                <d:instancetype b:dt="int">1</d:instancetype>
                <a:uid>AQQAAAABLAQDAAAAAAAAAAAAAAA</a:uid>
                <a:getlastmodified b:dt="dateTime.tz">2008-09-
19T18:54:34.903Z</a:getlastmodified>
                <d:created b:dt="dateTime.tz">2008-09-19T18:54:34.903Z</d:created>
                <f:sensitivity b:dt="int">0</f:sensitivity>
                <d:dtend b:dt="dateTime.tz">2008-09-22T18:00:00.000Z</d:dtend>
                <e:hasattachment b:dt="boolean">0</e:hasattachment>
                <a:iscollection b:dt="boolean">0</a:iscollection>
                <e:read b:dt="boolean">1</e:read>
```

```
                <k:resourcetag>rt:878040245f8fd545a99a34a3d65eae4b0000012c04031c5a707ee8157a4
7bfce2b746a3dba250000012c30ab</k:resourcetag>
                <e:priority b:dt="int">0</e:priority>
                <d:sequence b:dt="int">0</d:sequence>
            </a:prop>
        </a:propstat>    </a:response>
<!--The following is the information for the Saturday -->
<!--appointment-->
    <a:response>
        <a:href>https://SERVER01/exchange/local/Calendar/Sat%20Appt.EML</a:href>
        <a:propstat>
            <a:status>HTTP/1.1 200 OK</a:status>
            <a:prop>
                <d:alldayevent b:dt="boolean">0</d:alldayevent>
                <e:textdescription>
                </e:textdescription>
                <a:contentclass>urn:content-classes:appointment</a:contentclass>
                <d:responserequested b:dt="boolean">1</d:responserequested>
                <a:supportedlock>
                    <lockentry xmlns="DAV:">
                        <locktype>
                            <transaction>
                                <groupoperation />
                            </transaction>
                        </locktype>
                        <lockscope>
                            <local />
                        </lockscope>
                    </lockentry>
                </a:supportedlock>
                <d:busystatus>BUSY</d:busystatus>
                <f:permanenturl>https://SERVER01/exchange/local/-FlatUrlSpace-
/1c5a707ee8157a47bfce2b746a3dba25-12c2720/878040245f8fd545a99a34a3d65eae4b-
12c0402</f:permanenturl>
                <a:getcontenttype>message/rfc822</a:getcontenttype>
                <a:id>AQEAAAABLCcgBAAAAAEsBAIAAAAA</a:id>
                <f:mid b:dt="i8">145289470789287940</f:mid>
                <d:uid>040000008200E00074C5B7101A82E00800000000F0F4EF794E1AC90100000000000000
0010000000AF06C474E22DE94DAC2E6AF0E8AC2EA0</d:uid>
                <a:isfolder b:dt="boolean">0</a:isfolder>
                <a:resourcetype />
                <d:method>REQUEST</d:method>
                <a:getetag>"1c5a707ee8157a47bfce2b746a3dba250000012c30a9"</a:getetag>
                <lockdiscovery xmlns="DAV:">
                </lockdiscovery>
                <f:outlookmessageclass>IPM.Appointment</f:outlookmessageclass>
                <a:creationdate b:dt="dateTime.tz">2008-09-19T18:54:29.169Z</a:creationdate>
                <f:ntsecuritydescriptor
b:dt="bin.base64">CAAEAAAAAAABAC+MMAAAAEwAAAAAAAAAFAAAAAIAHAABAAAAARAUAL8PHwABAQAAAAAABQcAAAA
BBQAAAAAABRUAAAD0l0oajmNmy/EPr4pXBAAAAQUAAAAAAAUVAAAA9JdKGo5jZsvxD6+KAQIAAA==</f:ntsecurityde
scriptor>
                <d:lastmodified b:dt="dateTime.tz">2008-09-19T18:54:29.169Z</d:lastmodified>
                <d:dtstart b:dt="dateTime.tz">2008-09-20T17:00:00.000Z</d:dtstart>
                <d:location>
                </d:location>
                <j:subject>Sat Appt</j:subject>
                <d:duration b:dt="int">3600</d:duration>
                <e:htmldescription>&lt;!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN"&gt;
&lt;HTML&gt; &lt;HEAD&gt; &lt;META NAME="Generator" CONTENT="MS Exchange Server version
08.01.0240.003"&gt; &lt;TITLE&gt;Sat Appt&lt;/TITLE&gt; &lt;/HEAD&gt; &lt;BODY&gt; &lt;!--
```

```
Converted from text/rtf format --&gt; &lt;P DIR=LTR&gt;&lt;SPAN LANG="en-
us"&gt;&lt;/SPAN&gt;&lt;/P&gt; &lt;/BODY&gt; &lt;/HTML&gt;</e:htmldescription>
                <a:ishidden b:dt="boolean">0</a:ishidden>
                <a:parentname>https://SERVER01/exchange/local/Calendar/</a:parentname>
                <d:meetingstatus>TENTATIVE</d:meetingstatus>
                <e:subject>Sat Appt</e:subject>
                <a:getcontentlength b:dt="int">6348</a:getcontentlength>
                <e:normalizedsubject>Sat Appt</e:normalizedsubject>
                <a:isstructureddocument b:dt="boolean">0</a:isstructureddocument>
                <k:repl-uid>rid:878040245f8fd545a99a34a3d65eae4b0000012c0402</k:repl-uid>
                <d:reminderoffset b:dt="int">900</d:reminderoffset>
                <a:displayname>Sat Appt.EML</a:displayname>
                <a:href>https://SERVER01/exchange/local/Calendar/Sat%20Appt.EML</a:href>
                <a:isreadonly b:dt="boolean">0</a:isreadonly>
                <d:instancetype b:dt="int">0</d:instancetype>
                <a:uid>AQQAAAABLAQCAAAAAAAAAAAAAAA</a:uid>
                <a:getlastmodified b:dt="dateTime.tz">2008-09-
19T18:54:29.169Z</a:getlastmodified>
                <d:created b:dt="dateTime.tz">2008-09-19T18:54:29.169Z</d:created>
                <f:sensitivity b:dt="int">0</f:sensitivity>
                <d:dtend b:dt="dateTime.tz">2008-09-20T18:00:00.000Z</d:dtend>
                <e:hasattachment b:dt="boolean">0</e:hasattachment>
                <a:iscollection b:dt="boolean">0</a:iscollection>
                <e:read b:dt="boolean">1</e:read>
                <k:resourcetag>rt:878040245f8fd545a99a34a3d65eae4b0000012c04021c5a707ee8157a4
7bfce2b746a3dba250000012c30a9</k:resourcetag>
                <e:priority b:dt="int">0</e:priority>
                <d:sequence b:dt="int">0</d:sequence>
            </a:prop>
        </a:propstat>
    </a:response>
<!--The following is the information for the Friday -->
<!--appointment-->
    <a:response>
        <a:href>https://SERVER01/exchange/local/Calendar/Friday%20Appt.EML</a:href>
        <a:propstat>
            <a:status>HTTP/1.1 200 OK</a:status>
            <a:prop>
                <d:alldayevent b:dt="boolean">0</d:alldayevent>
                <e:textdescription>
                </e:textdescription>
                <a:contentclass>urn:content-classes:appointment</a:contentclass>
                <d:responserequested b:dt="boolean">1</d:responserequested>
                <a:supportedlock>
                    <lockentry xmlns="DAV:">
                        <locktype>
                            <transaction>
                                <groupoperation />
                            </transaction>
                        </locktype>
                        <lockscope>
                            <local />
                        </lockscope>
                    </lockentry>
                </a:supportedlock>
                <d:busystatus>BUSY</d:busystatus>
                <f:permanenturl>https://SERVER01/exchange/local/-FlatUrlSpace-
/1c5a707ee8157a47bfce2b746a3dba25-12c2720/878040245f8fd545a99a34a3d65eae4b-
12c0401</f:permanenturl>
                <a:getcontenttype>message/rfc822</a:getcontenttype>
```

```
                <a:id>AQEAAAABLCcgBAAAAAEsBAEAAAAA</a:id>
                <f:mid b:dt="i8">73231876751360004</f:mid>
                <d:uid>040000008200E00074C5B7101A82E00800000000C0533E754E1AC90100000000000000
0010000000B7AB7A2E2A04F94F8B71655A3762DEEC</d:uid>
                <a:isfolder b:dt="boolean">0</a:isfolder>
                <a:resourcetype />
                <d:method>REQUEST</d:method>
                <a:getetag>"1c5a707ee8157a47bfce2b746a3dba250000012c30a5"</a:getetag>
                <lockdiscovery xmlns="DAV:">
                </lockdiscovery>
                <f:outlookmessageclass>IPM.Appointment</f:outlookmessageclass>
                <a:creationdate b:dt="dateTime.tz">2008-09-19T18:54:15.997Z</a:creationdate>
                <f:ntsecuritydescriptor
b:dt="bin.base64">CAAEAAAAAAABAC+MMAAAAEwAAAAAAAAAFAAAAAIAHAABAAAAARAUAL8PHwABAQAAAAAABQcAAAA
BBQAAAAAABRUAAAD0l0oajmNmy/EPr4pXBAAAAQUAAAAAAAUVAAAA9JdKGo5jZsvxD6+KAQIAAA==</f:ntsecurityde
scriptor>
                <d:lastmodified b:dt="dateTime.tz">2008-09-19T18:54:15.997Z</d:lastmodified>
                <d:dtstart b:dt="dateTime.tz">2008-09-19T22:00:00.000Z</d:dtstart>
                <d:location>
                </d:location>
                <j:subject>Friday Appt</j:subject>
                <d:duration b:dt="int">3600</d:duration>
                <e:htmldescription>&lt;!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN"&gt;
&lt;HTML&gt; &lt;HEAD&gt; &lt;META NAME="Generator" CONTENT="MS Exchange Server version
08.01.0240.003"&gt; &lt;TITLE&gt;Friday Appt&lt;/TITLE&gt; &lt;/HEAD&gt; &lt;BODY&gt; &lt;!--
Converted from text/rtf format --&gt; &lt;P DIR=LTR&gt;&lt;SPAN LANG="en-
us"&gt;&lt;/SPAN&gt;&lt;/P&gt; &lt;/BODY&gt; &lt;/HTML&gt;</e:htmldescription>
                <a:ishidden b:dt="boolean">0</a:ishidden>
                <a:parentname>https://SERVER01/exchange/local/Calendar/</a:parentname>
                <d:meetingstatus>TENTATIVE</d:meetingstatus>
                <e:subject>Friday Appt</e:subject>
                <a:getcontentlength b:dt="int">6351</a:getcontentlength>
                <e:normalizedsubject>Friday Appt</e:normalizedsubject>
                <a:isstructureddocument b:dt="boolean">0</a:isstructureddocument>
                <k:repl-uid>rid:878040245f8fd545a99a34a3d65eae4b0000012c0401</k:repl-uid>
                <d:reminderoffset b:dt="int">900</d:reminderoffset>
                <a:displayname>Friday Appt.EML</a:displayname>
                <a:href>https://SERVER01/exchange/local/Calendar/Friday%20Appt.EML</a:href>
                <a:isreadonly b:dt="boolean">0</a:isreadonly>
                <d:instancetype b:dt="int">0</d:instancetype>
                <a:uid>AQQAAAABLAQBAAAAAAAAAAAAAAA</a:uid>
                <a:getlastmodified b:dt="dateTime.tz">2008-09-
19T18:54:15.997Z</a:getlastmodified>
                <d:created b:dt="dateTime.tz">2008-09-19T18:54:15.997Z</d:created>
                <f:sensitivity b:dt="int">0</f:sensitivity>
                <d:dtend b:dt="dateTime.tz">2008-09-19T23:00:00.000Z</d:dtend>
                <e:hasattachment b:dt="boolean">0</e:hasattachment>
                <a:iscollection b:dt="boolean">0</a:iscollection>
                <e:read b:dt="boolean">1</e:read>
                <k:resourcetag>rt:878040245f8fd545a99a34a3d65eae4b0000012c04011c5a707ee8157a4
7bfce2b746a3dba250000012c30a5</k:resourcetag>
                <e:priority b:dt="int">0</e:priority>
                <d:sequence b:dt="int">0</d:sequence>
            </a:prop>
        </a:propstat>
    </a:response>
</a:multistatus>
```

## 4.4 Retrieve the contents of an appointment

### 4.4.1 Request

In the following example, the client uses the **GET** method to retrieve the contents of a single appointment returned in the **SEARCH** response, /exchange/local/Calendar/Recurring%20Monday%20Appt.EML.

```
GET /exchange/local/Calendar/Recurring%20Monday%20Appt.EML HTTP/1.1
Translate: f
```

### 4.4.2 Response

The response is returned as a set of properties providing the properties set on the Calendar object.

```
HTTP/1.1 200 OK
Content-Length: 2930
Content-Type: message/rfc822
Last-Modified: Fri, 19 Sep 2008 18:54:34 GMT
Accept-Ranges: bytes
ETag: "1c5a707ee8157a47bfce2b746a3dba250000012c30ab"
Server: Microsoft-IIS/7.0
ResourceTag:
<rt:878040245f8fd545a99a34a3d65eae4b0000012c04031c5a707ee8157a47bfce2b746a3dba250000012c30ab>
MS-WebStorage: 08.01.10240
X-Powered-By: ASP.NET
Date: Fri, 19 Sep 2008 22:08:49 GMT

Received: by SERVER01.contoso.com
id <01C91A89.2ECD2D90@SERVER01.contoso.com>; Fri, 19 Sep 2008 11:54:45 -0700
Content-class: urn:content-classes:appointment
Subject: Recurring Monday Appt
Date: Fri, 19 Sep 2008 11:54:45 -0700
Message-ID: <878040245F8FD545A99A34A3D65EAE4B012C0403@SERVER01.contoso.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="----_=_NextPart_001_01C91A89.2ECD2D90"
X-MS-Has-Attach:
X-MS-TNEF-Correlator:
Thread-Topic: Recurring Monday Appt
Thread-Index: AckaiS7NHD0URXe6QTuC5WF9VAcG+g==
X-MimeOLE: Produced By Microsoft Exchange V8.1
From: "Brian Perry" <brian@contoso.com>

This is a multi-part message in MIME format.

------_=_NextPart_001_01C91A89.2ECD2D90
Content-Type: text/html;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
<HTML>
<HEAD>
<META HTTP-EQUIV=3D"Content-Type" CONTENT=3D"text/html; =
charset=3Diso-8859-1">
```

```
<META NAME=3D"Generator" CONTENT=3D"MS Exchange Server version =
08.01.0240.003">
<TITLE>Recurring Monday Appt</TITLE>
</HEAD>
<BODY>
<!-- Converted from text/rtf format -->

<P DIR=3DLTR><SPAN LANG=3D"en-us"></SPAN></P>

</BODY>
</HTML>
------_=_NextPart_001_01C91A89.2ECD2D90
Content-class: urn:content-classes:appointment
Content-Type: text/calendar;
method=REQUEST;
charset="utf-8"
Content-Transfer-Encoding: 8bit

BEGIN:VCALENDAR
METHOD:REQUEST
PRODID:Microsoft CDO for Microsoft Exchange
VERSION:2.0
BEGIN:VTIMEZONE
TZID:GMT -0800 (Standard) / GMT -0700 (Daylight)
BEGIN:STANDARD
DTSTART:16010101T020000
TZOFFSETFROM:-0700
TZOFFSETTO:-0800
RRULE:FREQ=YEARLY;WKST=MO;INTERVAL=1;BYMONTH=11;BYDAY=1SU
END:STANDARD
BEGIN:DAYLIGHT
DTSTART:16010101T020000
TZOFFSETFROM:-0800
TZOFFSETTO:-0700
RRULE:FREQ=YEARLY;WKST=MO;INTERVAL=1;BYMONTH=3;BYDAY=2SU
END:DAYLIGHT
END:VTIMEZONE
BEGIN:VEVENT
DTSTAMP:20080919T220849Z
DTSTART;TZID="GMT -0800 (Standard) / GMT -0700 (Daylight)":20080922T100000
SUMMARY:Recurring Monday Appt
UID:040000008200E00074C5B7101A82E008000000000090556E824E1AC901000000000000000
 0100000001267AC06562E3A4EBA4627A617D09DE3
ORGANIZER;CN="Brian Perry":MAILTO:brian@contoso.com
LOCATION:
DTEND;TZID="GMT -0800 (Standard) / GMT -0700 (Daylight)":20080922T110000
RRULE:FREQ=WEEKLY;INTERVAL=1;BYDAY=MO;WKST=SU
DESCRIPTION:\N
SEQUENCE:0
PRIORITY:5
CLASS:
CREATED:20080919T185434Z
LAST-MODIFIED:20080919T185434Z
STATUS:TENTATIVE
TRANSP:OPAQUE
X-MICROSOFT-CDO-BUSYSTATUS:BUSY
X-MICROSOFT-CDO-INSTTYPE:1
X-MICROSOFT-CDO-INTENDEDSTATUS:BUSY
X-MICROSOFT-CDO-ALLDAYEVENT:FALSE
```

```
X-MICROSOFT-CDO-IMPORTANCE:1
X-MICROSOFT-CDO-OWNERAPPTID:-1
X-MICROSOFT-CDO-APPT-SEQUENCE:0
X-MICROSOFT-CDO-ATTENDEE-CRITICAL-CHANGE:20080919T185434Z
BEGIN:VALARM
ACTION:DISPLAY
DESCRIPTION:REMINDER
TRIGGER;RELATED=START:-PT00H15M00S
END:VALARM
END:VEVENT
END:VCALENDAR

------_=_NextPart_001_01C91A89.2ECD2D90--
```

## 4.5 Changing an appointment property value

### 4.5.1 Request

In the following example, the client uses the **PROPPATCH** method to change the properties on a Calendar object returned by the **GET** method in section 4.5.2.

```
PROPPATCH /exchange/local/Calendar/Recurring%20Monday%20Appt.EML HTTP/1.1
Content-type: text/xml

<?xml version="1.0"?>
<a:propertyupdate xmlns:a="DAV:" xmlns:c="urn:schemas:calendar:"
xmlns:ct="urn:schemas:contacts:" xmlns:r="http://schemas.microsoft.com/repl/"
xmlns:ex="http://schemas.microsoft.com/exchange/" xmlns:o="urn:schemas-microsoft-
com:office:office" xmlns:m="urn:schemas:httpmail:" xmlns:h="urn:schemas:mailheader:"
xmlns:dt="urn:uuid:c2f41010-65b3-11d1-a29f-00aa00c14882/">
    <a:set>
        <a:prop>
            <c:busystatus>FREE</c:busystatus>
        </a:prop>
    </a:set>
</a:propertyupdate>
```

### 4.5.2 Response

The response contains the status of the update, and confirmation of the property updated.

```
HTTP/1.1 207 Multi-Status
Cache-Control: no-cache
Content-Length: 300
Content-Type: text/xml
Server: Microsoft-IIS/7.0
MS-Exchange-Permanent-URL: https://SERVER01/exchange/local/-FlatUrlSpace-
/1c5a707ee8157a47bfce2b746a3dba25-12c2720/878040245f8fd545a99a34a3d65eae4b-12c0403
Repl-UID: <rid:878040245f8fd545a99a34a3d65eae4b0000012c0403>
ResourceTag:
<rt:878040245f8fd545a99a34a3d65eae4b0000012c04031c5a707ee8157a47bfce2b746a3dba250000012c39c4>
MS-WebStorage: 08.01.10240
X-Powered-By: ASP.NET
Date: Fri, 19 Sep 2008 22:11:12 GMT
```

```
<?xml version="1.0"?>
<a:multistatus xmlns:b="urn:schemas:calendar:" xmlns:a="DAV:">
    <a:response>
        <a:href>https://SERVER01/exchange/local/Calendar/Recurring%20Monday%20Appt.EML</a:hre
f>
        <a:propstat>
            <a:status>HTTP/1.1 200 OK</a:status>
            <a:prop>
                <b:busystatus />
            </a:prop>
        </a:propstat>
    </a:response>
</a:multistatus>
```

## 4.6 Free/Busy Query

### 4.6.1 Request

The following code shows an example **GET** method request using a URL that includes the range for the request.

```
GET /public/MAPITLH/non_ipm_subtree/SCHEDULE+ FREEBUSY/EX:/o= <example>/ou=<houston>/USER-
/<lisal>?start1999-01-05&end=1999-01-08
Host: mysvr
Connection: close
```

The example request includes a start and end date for the period over which it wants to see free/busy information. The start and end time are appended to example URL in the format ?start=<*start_date*>&end=<*end_date*>.

### 4.6.2 Response

The following **XML** code shows the response to the **GET** method with the calendar namespace as the default. The time properties are specified in [ISO-8601], in GMT.

```
<vfreebusy xmlns="urn:schemas:calendar:">
    <freebusyresp href="http://example.com/busy/jp_01.vcs">
        <attendee>MAILTO:john@example.com</attendee>
        <dtstamp>1997:09:01T10:00</dtstamp>
        <uid>19970901T0830000-uid1@example.com</uid>
        <freebusy>
            <fbitem>
                <dtstart>1997-10-15T05:00:00</dtstart>
                <dtend>1997-10-15T06:00:00</dtend>
                <busystatus>TENTATIVE</busystatus>
            </fbitem>
            <fbitem>
                <dtstart>1997-10-15T16:00:00</dtstart>
                <duration>1997-10-15T17:00:00</duration>
            </fbitem>
            <fbitem>
                <dtstart>1997-10-15T22:0:00</dtstart>
```

```
                <duration>PT6H30M</duration>
            </fbitem>
        </freebusy>
    </freebusyresp>
    <comment>DCD:dt="string&gt;This iCalendar file contains busy time information for the
next three months.</comment>
</vfreebusy>
```

In this example, the **dtstamp** property (section 2.2.2.5) contains the last-modified information for the free-busy data.

# 5 Security

## 5.1 Security Considerations for Implementers

None.

## 5.2 Index of Security Parameters

None.

# 6 Appendix A: Product Behavior

The information in this specification is applicable to the following product versions. References to product versions include released service packs.

- Microsoft Office Outlook 2003
- Microsoft Exchange Server 2003
- Microsoft Office Outlook 2007
- Microsoft Exchange Server 2007

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 product does not follow the prescription.

<1> Section 2.2.2.3: Microsoft Exchange Server 2007 and Microsoft Exchange Server 2003 publish the free/busy information for a user's calendar in the Active Directory attribute ms-Exch-FB-URL.

<2> Section 2.2.7.19: This property can be set on Calendar objects for backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<3> Section 2.2.7.33: This property can be set on Calendar objectfor backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<4> Section 2.2.7.45: This property can be set on Calendar object for backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<5> Section 2.2.7.63: This property can be set on Calendar object for backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<6> Section 2.2.7.64: This property can be set on Calendar object for backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<7> Section 2.2.7.66: This property can be set on Calendar object for backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<8> Section 2.2.7.67: This property can be set on Calendar object for backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<9> Section 2.2.7.71: This property can be set on Calendar object for backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<10> Section 2.2.7.73: This property can be set on Calendar object for backward compatibility with earlier clients. However, this property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007.

<11> Section 3.1.1.2: For Microsoft Exchange Server 2007 and Microsoft Exchange Server 2003, this attribute is ms-Exch-FB-URL.

<12> Section 3.1.5.1.2: Microsoft Exchange Server 2007 and Microsoft Exchange Server 2003 publish the free/busy information for a user's calendar in the directory attribute ms-Exch-FB-URL.

<13> Section 3.1.5.1.2: The Microsoft Office Outlook 2007 display of free/busy information contains a start time, an end-time, and a granularity of view. Granularity is not supported by WebDAV and a default interval of 5 minutes is used.

# 7 Change Tracking

This section identifies changes made to [MS-XWDCAL] protocol documentation between July 2009 and November 2009 releases. Changes are classed as major, minor, or editorial.

**Major** changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements or functionality.
- An extensive rewrite, addition, or deletion of major portions of content.
- A protocol is deprecated.
- The removal of a document from the documentation set.
- Changes made for template compliance.

**Minor** changes do not affect protocol interoperability or implementation. Examples are updates to fix technical accuracy or ambiguity at the sentence, paragraph, or table level.

**Editorial** changes apply to grammatical, formatting, and style issues.

**No changes** means that the document is identical to its last release.

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

- New content added.
- Content update.
- Content removed.
- New product behavior note added.
- Product behavior note updated.
- Product behavior note removed.
- New protocol syntax added.
- Protocol syntax updated.
- Protocol syntax removed.
- New content added due to protocol revision.
- Content updated due to protocol revision.
- Content removed due to protocol revision.
- New protocol syntax added due to protocol revision.
- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.
- New content added for template compliance.
- Content updated for template compliance.

- Content removed for template compliance.
- Obsolete document removed.

Editorial changes always have the revision type "Editorially updated."

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

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

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

Changes are listed in the following table. If you need further information, please contact protocol@microsoft.com.

| Section | Tracking number (if applicable) and description | Major change (Y or N) | Revision Type |
|---|---|---|---|
| 1 Introduction | 50064 Updated statement about user's default calendar folder. | N | Content update. |
| 1.1 Glossary | 52076 Added glossary terms. | N | Content update. |
| 1.2.1 Normative References | 49956 Removed [MS-OXCSTOR] reference. | N | Content removed. |
| 1.2.1 Normative References | 49986 Added reference to [RFC20]. | N | Content update. |
| 1.2.1 Normative References | 49939 Added reference to [RFC1738]. | N | Content update. |
| 1.5 Prerequisites/Preconditions | 49982 Updated link to [RFC2616]. | N | Content update. |
| 2.2 Message Syntax | 49953 Added descriptions of headers that appear for every property. | N | Content update. |
| 2.2.1.3 PidNameDavIsCollection | 49957 Removed reference to [MS-WDVME]. | N | Content removed. |
| 2.2.2.3 PidLidFreeBusyLocation | 49933 Changed reference from [MS-OXOCAL] to [MS-OXOPFFB]. | N | Content update. |
| 2.2.2.3 PidLidFreeBusyLocation | 49939 Changed "%x30x39" in ABNF to "%x30-39". | N | Content update. |
| 2.2.2.3 PidLidFreeBusyLocation | 49945 Removed information about publishing the information as a directory attribute | N | Content update. |

| Section | Tracking number (if applicable) and description | Major change (Y or N) | Revision Type |
|---|---|---|---|
| | and updated product behavior notes. | | |
| 2.2.2.3 PidLidFreeBusyLocation | 49989 Added information about the start and end dates. | N | Content update. |
| 2.2.2.12 PidNameCalendarDescriptionUrl | 49986 Added reference to [RFC20]. | N | Content update. |
| 2.2.2.18 PidNameCalendarInstanceType | 49994 Removed informative use of SHOULD. | N | Content update. |
| 2.2.2.18 PidNameCalendarInstanceType | 50069 Updated format and descriptions in table. | N | Content update. |
| 2.2.2.21 PidNameCalendarLocationUrl | 49925 Changed section number refrence to [MS-OXCICAL]. | N | Content update. |
| 2.2.2.26 PidNameCalendarReminderOffset | 49925 Changed the section number reference for [MS-OXCICAL]. | N | Content update. |
| 2.2.2.44 vfreebusy component | 49996 Added descriptions for the freebusyreq, freebusyresp, and busytime elements. | N | New content added. |
| 2.2.2.44 vfreebusy component | 50066 Updated minOccurs values in schema. | N | Content update. |
| 2.2.2.44 vfreebusy component | 49936 Changed rrule reference to PidNameICalendarRecurrenceRule. | N | Content update. |
| 2.2.3.6 PidTagNormalizedSubject | 49950 Added a description of the normalized subject. | N | New content added. |
| 2.2.7.37 PidLidNonSendableBcc | 49977 Changed data type. | N | Content update. |
| 2.2.7.38 PidLidNonSendableCc | 49977 Changed data type. | N | Content update. |
| 2.2.7.39 PidLidNonSendableTo | 49977 Changed data type. | N | Content update. |
| 2.2.7.40 PidLidNonSendBccTrackStatus | 49977 Changed data type. | N | Content update. |
| 2.2.7.41 PidLidNonSendCcTrackStatus | 49977 Changed data type. | N | Content update. |
| 2.2.7.42 | 49977 | N | Content |

| Section | Tracking number (if applicable) and description | Major change (Y or N) | Revision Type |
|---|---|---|---|
| PidLidNonSendToTrackStatus | Changed data type. | | update. |
| 2.2.7.52 PidLidReminderDelta | 49977 Changed data type. | N | Content update. |
| 2.2.7.54 PidLidReminderOverride | 49977 Changed data type. | N | Content update. |
| 2.2.7.55 PidLidReminderPlaySound | 49977 Changed data type. | N | Content update. |
| 2.2.7.56 PidLidReminderSet | 49977 Changed data type. | N | Content update. |
| 2.2.7.61 PidLidReminderType | 49977 Changed data type. | N | Content update. |
| 2.2.8.1 PidNameExchangeIntendedBusyStatus | 49984 Removed sentence about PidLidIntendedBusyStatus. | N | Content removed. |
| 2.2.8.1 PidNameExchangeIntendedBusyStatus | 49977 Changed data type. | N | Content update. |
| 3.1.5.3 PROPFIND Method | 49938 Changed [RFC4718] reference to [RFC4918]. | N | Content update. |
| 3.1.5.4 PROPPATCH Method | 49938 Changed [RFC4718] reference to [RFC4918]. | N | Content update. |
| 4.1 Creating a new calendar object | 52871 Added new section. | N | New content added. |
| 4.6.1 Request | 49988 Changed the text that explains the start and end date values. | N | Content update. |
| 4.6.1 Request | 49989 Removed normative information about start date and end date. | N | Content update. |
| 4.6.2 Response | 50068 Changed the description explaining the dtstamp property. | N | Content update. |
| 7 Change Tracking | 53354 Updated the specification title. | N | Content update. |

# 8 Index