

[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. |
| 02/10/2010 | 4.0.0 | Major | Updated and revised the technical content. |
| 05/05/2010 | 4.1.0 | Minor | Updated the technical content. |

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1 Introduction

This document specifies **property** extensions to [\[RFC2518\]](#), [\[MS-WDVME\]](#), [\[MS-WDVSE\]](#), 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)**
- Inbox folder**
- Lightweight Directory Access Protocol (LDAP)**
- mailbox**
- meeting**
- Meeting object**
- meeting request**
- Meeting Request object**
- Meeting Update object**
- meeting-related object**
- message**
- message ID (MID)**
- non-IPM subtree**
- optional attendee**
- organizer**
- orphan instance**
- Out of Office (OOO)**
- permissions**
- plain text**
- property**
- public folder**
- recipient(1)**
- recurrence pattern**
- recurring series**
- reminder**

Root folder
signal time
Simple Mail Transfer Protocol (SMTP)
single instance
store
Uniform Resource Identifier (URI)
Uniform Resource Locator (URL)
unsendable attendee
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-DTYP] Microsoft Corporation, "Windows Data Types", March 2007, <http://go.microsoft.com/fwlink/?LinkId=111558>

[MS-OXCDATA] Microsoft Corporation, "[Data Structures](#)", April 2008.

[MS-OXCFOLD] Microsoft Corporation, "[Folder Object Protocol Specification](#)", April 2008.

[MS-OXCICAL] Microsoft Corporation, "[iCalendar to Appointment Object Conversion Protocol Specification](#)", April 2008.

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

[MS-OXCMSG] Microsoft Corporation, "[Message and Attachment Object Protocol Specification](#)", April 2008.

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[MS-OXOCAL] Microsoft Corporation, "[Appointment and Meeting Object Protocol Specification](#)", April 2008.

[MS-OXOCNTC] Microsoft Corporation, "[Contact Object Protocol Specification](#)", April 2008.

[MS-OXORMDR] Microsoft Corporation, "[Reminder Settings Protocol Specification](#)", April 2008.

- [MS-OXPROPS] Microsoft Corporation, "[Exchange Server Protocols Master Property List](#)", April 2008.
- [MS-WDV] Microsoft Corporation, "Web Distributed Authoring and Versioning (WebDAV) Protocol: Client Extensions", July 2006, <http://go.microsoft.com/fwlink/?LinkID=134708>
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- [MS-XWDSTRUCTDOC] Microsoft Corporation, "[Web Distributed Authoring and Versioning \(WebDAV\) Extensions for Structured Documents](#)", December 2008.
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- [RFC822] Crocker, D., "STANDARD FOR THE FORMAT OF ARPA INTERNET TEXT MESSAGES", RFC 822, August 1982, <http://www.ietf.org/rfc/rfc822.txt>
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- [RFC2068] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2068, January 1997, <http://www.ietf.org/rfc/rfc2068.txt>
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- [RFC4791] Daboo, C., Desruisseaux, B., Dusseault, L., "Calendaring Extensions to WebDAV (CalDAV)", RFC 4791, March 2007, <http://www.ietf.org/rfc/rfc4791.txt>

1.2.2 Informative References

[MSDN-CESHU] Microsoft Corporation, "Constructing Exchange Store HTTP URLs", June 2006, <http://go.microsoft.com/fwlink/?LinkId=180351>

[MSDN-EXCHFBURL] Microsoft Corporation, "ms-Exch-FB-URL Attribute", June 2006, <http://go.microsoft.com/fwlink/?LinkId=179802>

1.3 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 [\[RFC2518\]](#).

1.4 Relationship to Other Protocols

This specification is dependent on the WebDAV Protocol, as specified in [\[RFC2518\]](#). WebDAV, in turn, relies on **Hypertext Transfer Protocol (HTTP)** 1.1, as specified in [\[RFC2068\]](#). 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 [\[RFC2518\]](#) as specified in [\[MS-XWDEXT\]](#), [\[MS-WDV\]](#), [\[MS-WDVSE\]](#), 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** has a **URL** that points to the WebDAV server.
- The WebDAV client obtains the URL through a mechanism that is outside of WebDAV and that is determined by the implementer.
- The WebDAV client and server support WebDAV **access control lists (ACL)**, as specified in [\[MS-XWDVSEC\]](#) section 2.2.10 and [\[MS-DTYP\]](#) section 2.4.5.
- The WebDAV client and server support ETags, as specified in [\[RFC2068\]](#) section 14.20.
- The WebDAV client and server support iCalendar, as specified in [\[RFC2445\]](#) as a media type for the Calendar object resource format.

For more information about constructing WebDAV server URLs, see [\[MSDN-CESHU\]](#).

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 [\[RFC2068\]](#) 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 [\[RFC2518\]](#) and [\[RFC2068\]](#).
- **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

None.

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

Messages are transported using HTTP, as specified in [\[RFC2518\]](#) and [\[RFC2068\]](#), and HTTPS, as specified in [\[RFC2818\]](#).

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:

- **DAV property name:** The WebDAV names for the property
- **Data type:** The data type of the property.
- A description of the property and a link to the property page in [\[MS-OXPROPS\]](#).

2.2.1 DAV: Namespace Properties

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

2.2.1.1 PidNameContentClass

DAV property names: DAV:contentclass, Content-Class, [urn:schemas:mailheader:content-class](#)

Data type: PtypString

Gets or sets the content **class** for the Calendar object. For Calendar objects, the value of this property MUST be set to "urn:content-classes:appointment" for an **appointment** in the **Calendar folder**, or set to "urn:content-classes:calendarmessage" for a new **meeting request**.

For more details about [PidNameContentClass](#), see [\[MS-OXPROPS\]](#) section 2.436 and [\[MS-OXCMAIL\]](#) section 2.1.2.2.

2.2.1.2 PidNameDavId

DAV property name: DAV:id

Data type: PtypString

Gets the calculated unique ID for the calendar item.

For more details about [PidNameDavId](#), see [\[MS-OXPROPS\]](#) section 2.447.

2.2.1.3 PidNameDavIsCollection

DAV property name: DAV:iscollection

Data type: PtypBoolean

Gets the calculated value that indicates whether the Calendar object is a **collection**. True if the Calendar object is a collection; otherwise, false.

For more details about [PidNameDavIsCollection](#), see [\[MS-OXPROPS\]](#) section 2.448.

2.2.1.4 PidNameDavIsStructuredDocument

DAV property name: DAV:isstructureddocument

Data type: PtypBoolean

Gets the calculated value that indicates whether a Calendar object is a structured document, as specified in [\[MS-XWDSTRUCTDOC\]](#). True if the Calendar object is a structured document; otherwise, false.

For more details about [PidNameDavIsStructuredDocument](#), see [\[MS-OXPROPS\]](#) section 2.449.

2.2.1.5 PidNameDavParentName

DAV property name: DAV:parentname

Data type: PtypString

Gets the calculated URL of the **folder** that contains the Calendar object.

For more details about [PidNameDavParentName](#), see [\[MS-OXPROPS\]](#) section 2.450.

2.2.1.6 PidNameDavUid

DAV property name: DAV:uid

Data type: PtypString

Gets the calculated unique identifier for the item.

For more details about [PidNameDavUid](#), see [\[MS-OXPROPS\]](#) section 2.454.

2.2.1.7 PidTagAttributeHidden

DAV property name: DAV:ishidden

Data type: PtypBoolean

Gets or sets a value that indicates whether an item is hidden, as specified in [\[MS-WDVME\]](#) section 2.2.9.3. True if the item is hidden; otherwise, false.

For more details about [PidTagAttributeHidden](#), see [\[MS-OXPROPS\]](#) section 2.680.

2.2.1.8 PidTagAttributeReadOnly

DAV property name: DAV:isreadonly

Data type: PtypBoolean

Gets or sets a value that indicates whether an item can be modified or deleted. True if the item is read-only; otherwise, false.

For more details about [PidTagAttributeReadOnly](#), see [\[MS-OXPROPS\]](#) section 2.681.

2.2.1.9 PidTagComment

DAV property names: DAV:comment, <http://schemas.microsoft.com/exchange/summary-utf8>

Data type: PtypString

Gets or sets a comment for the Calendar object.

For more details about [PidTagComment](#), see [\[MS-OXPROPS\]](#) section 2.710 and [\[MS-OXCFOLD\]](#) section 2.3.2.2.2.

2.2.1.10 PidTagSubfolder

DAV property name: DAV:isfolder

Data type: PtypBoolean

Gets a value that specifies whether an item is a folder. True if the item is a folder and viewable in the mail client; otherwise, false.

For more details about [PidTagSubfolder](#), see [\[MS-OXPROPS\]](#) section 2.1156 and [\[MS-WDVME\]](#) section 2.2.9.2.

2.2.1.11 PidTagUrlName

DAV property name: DAV:href

Data type: PtypString

Gets the absolute URL of the calendar item.

For more details about [PidTagUrlName](#), see [\[MS-OXPROPS\]](#) section 2.1182.

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

DAV property names: urn:schemas:calendar:replytime, <http://schemas.microsoft.com/mapi/apptreplytime>

Data type: PtypTime

Gets or sets 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.

For more details about [PidLidAppointmentReplyTime](#), see [\[MS-OXPROPS\]](#) section 2.25.

2.2.2.2 PidLidAppointmentSubType

DAV property names: urn:schemas:calendar:alldayevent,
http://schemas.microsoft.com/mapi/apptsubtype

Data type: PtypBoolean

Gets or sets a value that indicates whether the appointment or meeting is scheduled for an entire day. True if the appointment or meeting is an all day event; otherwise, false. Setting this property does not affect the start time or the end time of the appointment or meeting.

For more details about [PidLidAppointmentSubType](#), see [\[MS-OXPROPS\]](#) section 2.32 and [\[MS-OXOCAL\]](#) section 2.2.1.9.

2.2.2.3 PidLidFreeBusyLocation

DAV property name: urn:schemas:calendar:fburl

Data type: PtypString

Gets or sets 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    = 4DIGIT
month   = 2DIGIT
day     = 2DIGIT
```

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>

For more details about [PidLidFreeBusyLocation](#), see [\[MS-OXPROPS\]](#) section 2.142.

2.2.2.4 PidLidLocation

DAV property name: urn:schemas:calendar:location

Data type: PtypString

Gets or sets the calculated location of an appointment or meeting.

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

For more details about [PidLidLocation](#), see [\[MS-OXPROPS\]](#) section 2.159.

2.2.2.5 PidLidOwnerCriticalChange

DAV property names: urn:schemas:calendar:dtstamp,
`http://schemas.microsoft.com/mapi/owner_critical_change`

Data type: PtypTime

Gets or sets the date and time at which a **Meeting Request object** was sent by the **organizer**. The value is specified in **UTC**.

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

For more details about [PidLidOwnerCriticalChange](#), see [\[MS-OXPROPS\]](#) section 2.199 and [\[MS-OXOCAL\]](#) section 2.2.1.34.

2.2.2.6 PidLidResponseStatus

DAV property names: urn:schemas:calendar:attendeestatus,
`http://schemas.microsoft.com/mapi/responsestatus`

Data type: PtypInteger32

Gets or sets the calculated response status of the attendee.

For more details about [PidLidResponseStatus](#), see [\[MS-OXPROPS\]](#) section 2.231 and [\[MS-OXOCAL\]](#) section 2.2.1.11.

2.2.2.7 PidNameCalendarAttendeeRole

DAV property name: urn:schemas:calendar:attendeerole

Data type: PtypInteger32

Gets or sets 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 |

This property is not validated or enforced by the server. It is the responsibility of the client to keep this property synchronized.

For more details about [PidNameCalendarAttendeeRole](#), see [\[MS-OXPROPS\]](#) section 2.385.

2.2.2.8 PidNameCalendarBusystatus

DAV property name: urn:schemas:calendar:busystatus

Data type: PtypString

Gets or sets the calculated value that indicates 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.

For more details about [PidNameCalendarBusystatus](#), see [\[MS-OXPROPS\]](#) section 2.386.

2.2.2.9 PidNameCalendarContact

DAV property name: urn:schemas:calendar:contact

Data type: PtypString

Gets or sets 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.

For more details about [PidNameCalendarContact](#), see [\[MS-OXPROPS\]](#) section 2.387.

2.2.2.10 PidNameCalendarContactUrl

DAV property name: urn:schemas:calendar:contacturl

Data type: PtypString

Gets or sets the URL where contact information is accessible in **HTML** format.

For more details about [PidNameCalendarContactUrl](#), see [\[MS-OXPROPS\]](#) section 2.388.

2.2.2.11 PidNameCalendarCreated

DAV property name: urn:schemas:calendar:created

Data type: PtypTime

Gets or sets the calculated 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.

For more details about [PidNameCalendarCreated](#), see [\[MS-OXPROPS\]](#) section 2.389.

2.2.2.12 PidNameCalendarDescriptionUrl

DAV property name: urn:schemas:calendar:descriptionurl

Data type: PtypString

Gets or sets 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.

For more details about [PidNameCalendarDescriptionUrl](#), see [\[MS-OXPROPS\]](#) section 2.390.

2.2.2.13 PidNameCalendarDuration

DAV property name: urn:schemas:calendar:duration

Data type: PtypInteger32

Gets or sets the calculated 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.

For more details about [PidNameCalendarDuration](#), see [\[MS-OXPROPS\]](#) section 2.391.

2.2.2.14 PidNameCalendarExceptionDate

DAV property name: urn:schemas:calendar:exdate

Data type: PtypMultipleTime

Gets or sets the calculated list of original start times of instances of the recurring appointment that have been deleted.

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](#))

For more details about [PidNameCalendarExceptionDate](#), see [\[MS-OXPROPS\]](#) section 2.392.

2.2.2.15 PidNameCalendarExceptionRule

DAV property name: urn:schemas:calendar:exrule

Data type: PtypMultipleString

Gets or sets 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](#))

For more details about [PidNameCalendarExceptionRule](#), see [\[MS-OXPROPS\]](#) section 2.393.

2.2.2.16 PidNameCalendarGeoLatitude

DAV property name: urn:schemas:calendar:geolatitude

Data type: PtypFloating64

Gets or sets 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.

For more details about [PidNameCalendarGeoLatitude](#), see [\[MS-OXPROPS\]](#) section 2.394.

2.2.2.17 PidNameCalendarGeoLongitude

DAV property name: urn:schemas:calendar:geolongitude

Data type: PtypFloating64

Gets or sets 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.

For more details about [PidNameCalendarGeoLongitude](#), see [\[MS-OXPROPS\]](#) section 2.395.

2.2.2.18 PidNameCalendarInstanceType

DAV property name: urn:schemas:calendar:instancetype

Data type: PtypInteger32

Gets or sets the calculated type of the 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.

For more details about [PidNameCalendarInstanceType](#), see [\[MS-OXPROPS\]](#) section 2.396.

2.2.2.19 PidNameCalendarIsOrganizer

DAV property name: urn:schemas:calendar:isorganizer

Data type: PtypBoolean

Gets or sets a value that indicates whether an attendee is the organizer of an appointment or meeting. True if the attendee is the organizer of an appointment or meeting; otherwise, false.

For more details about [PidNameCalendarIsOrganizer](#), see [\[MS-OXPROPS\]](#) section 2.397.

2.2.2.20 PidNameCalendarLastModified

DAV property name: urn:schemas:calendar:lastmodified

Data type: PtypTime

Gets or sets 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 separate from [PidTagLastModificationTime](#).

For more details about [PidNameCalendarLastModified](#), see [\[MS-OXPROPS\]](#) section 2.398.

2.2.2.21 PidNameCalendarLocationUrl

DAV property name: urn:schemas:calendar:locationurl

Data type: PtypString

Gets or sets the URL where the location information is accessible in HTML format.

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

For more details about [PidNameCalendarLocationUrl](#), see [\[MS-OXPROPS\]](#) section 2.399.

2.2.2.22 PidNameCalendarMeetingStatus

DAV property name: urn:schemas:calendar:meetingstatus

Data type: PtypString

Gets or sets the calculated 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 |

| Description | Value |
|----------------------|-----------|
| Meeting is tentative | TENTATIVE |

For more details about [PidNameCalendarMeetingStatus](#), see [\[MS-OXPROPS\]](#) section 2.400.

2.2.2.23 PidNameCalendarMethod

DAV property name: urn:schemas:calendar:method

Data type: PtypString

Gets or sets 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.

For more details about [PidNameCalendarMethod](#), see [\[MS-OXPROPS\]](#) section 2.401.

2.2.2.24 PidNameCalendarProductId

DAV property name: urn:schemas:calendar:prodid

Data type: PtypString

Gets or sets the product that created the iCalendar-formatted stream. The iCalendar format is specified in [\[MS-OXCICAL\]](#).

This property corresponds to the **PROID** property, as specified in [\[MS-OXCICAL\]](#) section 2.2.1.2.

For more details about [PidNameCalendarProductId](#), see [\[MS-OXPROPS\]](#) section 2.402.

2.2.2.25 PidNameCalendarRecurrenceIdRange

DAV property name: urn:schemas:calendar:recurrenceidrange

Data type: PtypString

Gets or sets a value that indicates which instances of a recurring appointment the [PidNameCalendarRecurrenceIdRange](#) property refers to. The **PtypString** value **ThisAndFuture** refers to the instance specified by the [PidLidExceptionReplaceTime](#) property ([\[MS-OXOCAL\]](#) section [2.2.10.1.6](#)) and to all later instances of the recurring appointment. The **PtypString** value **ThisAndPrior** refers to the instance specified by the [PidLidExceptionReplaceTime](#) property and to all earlier instances of the recurring appointment. The default value is **None**, which means that the [PidLidExceptionReplaceTime](#) property refers to a single instance.

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

For more details about [PidNameCalendarRecurrenceIdRange](#), see [\[MS-OXPROPS\]](#) section 2.403.

2.2.2.26 PidNameCalendarReminderOffset

DAV property name: urn:schemas:calendar:reminderoffset

Data type: PtypInteger32

Gets or sets 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. VALARM is specified in [\[MS-OXCICAL\]](#) section 2.2.1.20.62.

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

For more details about [PidNameCalendarReminderOffset](#), see [\[MS-OXPROPS\]](#) section 2.404.

2.2.2.27 PidNameCalendarResources

DAV property name: urn:schemas:calendar:resources

Data type: PtypString

Gets or sets a list of resources, such as rooms and video equipment, that 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.

For more details about [PidNameCalendarResources](#), see [\[MS-OXPROPS\]](#) section 2.405.

2.2.2.28 PidNameCalendarRsvp

DAV property name: urn:schemas:calendar:rsvp

Data type: PtypBoolean

Gets or sets a value that specifies whether the organizer of an appointment or meeting requested a response. True if the organizer of the appointment or meeting requested a response; otherwise, false.

For more details about [PidNameCalendarRsvp](#), see [\[MS-OXPROPS\]](#) section 2.406.

2.2.2.29 PidNameCalendarSequence

DAV property name: urn:schemas:calendar:sequence

Data type: PtypInteger32

Gets or sets a calculated value that 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.

For more details about [PidNameCalendarSequence](#), see [\[MS-OXPROPS\]](#) section 2.407.

2.2.2.30 PidNameCalendarTimeZone

DAV property name: urn:schemas:calendar:timezone

Data type: PtypString

Gets or sets the calculated 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](#).

For more details about [PidNameCalendarTimeZone](#), see [\[MS-OXPROPS\]](#) section 2.408.

2.2.2.31 PidNameCalendarTimeZoneId

DAV property name: urn:schemas:calendar:timezoneid

Data type: PtypInteger32

Gets or sets the timezone identifier of an appointment or meeting.

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, Istanbul, 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) |

| Name | Value | Description |
|--------------|--------------|---|
| 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) |
| 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) |

| Name | Value | Description |
|-----------------|-------|--|
| 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 |

For more details about [PidNameCalendarTimeZoneId](#), see [\[MS-OXPROPS\]](#) section 2.409.

2.2.2.32 PidNameCalendarTransparent

DAV property name: urn:schemas:calendar:transparent

Data type: PtypString

Gets or sets a value that 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.

For more details about [PidNameCalendarTransparent](#), see [\[MS-OXPROPS\]](#) section 2.410.

2.2.2.33 PidNameCalendarUid

DAV property name: urn:schemas:calendar:uid

Data type: PtypString

Gets or sets the calculated unique identifier of the appointment or meeting.

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

For more details about [PidNameCalendarUid](#), see [\[MS-OXPROPS\]](#) section 2.411.

2.2.2.34 PidNameCalendarVersion

DAV property name: urn:schemas:calendar:version

Data type: PtypString

Gets or sets the calculated 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.

For more details about [PidNameCalendarVersion](#), see [\[MS-OXPROPS\]](#) section 2.412.

2.2.2.35 PidNameFrom

DAV property name: urn:schemas:calendar:organizer

Data type: PtypString

Gets or sets 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.

For more details about [PidNameFrom](#), see [\[MS-OXPROPS\]](#) section 2.476.

2.2.2.36 PidNameICalendarRecurrenceDate

DAV property name: urn:schemas:calendar:rdate

Data type: PtypMultipleTime

Gets or sets 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.<2>

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](#))

For more details about [PidNameICalendarRecurrenceDate](#), see [\[MS-OXPROPS\]](#) section 2.490.

2.2.2.37 PidNameICalendarRecurrenceRule

DAV property name: urn:schemas:calendar:rrule

Data type: PtypMultipleString

Gets or sets 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](#))

For more details about [PidNameICalendarRecurrenceRule](#), see [\[MS-OXPROPS\]](#) section 2.491.

2.2.2.38 PidTagCdoRecurrenceid

DAV property name: urn:schemas:calendar:recurrenceid

Data type: PtypTime

Gets or sets the 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.

For more details about [PidTagCdoRecurrenceid](#), see [\[MS-OXPROPS\]](#) section 2.699.

2.2.2.39 PidTagICalendarEndTime

DAV property name: urn:schemas:calendar:dtend

Data type: PtypTime

Gets or sets 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.

For more details about [PidTagICalendarEndTime](#), see [\[MS-OXPROPS\]](#) section 2.813.

2.2.2.40 PidTagICalendarReminderNextTime

DAV property name: urn:schemas:calendar:remindernexttime

Data type: PtypTime

Gets or sets the calculated date and time for the activation of the next reminder.

For more details about [PidTagICalendarReminderNextTime](#), see [\[MS-OXPROPS\]](#) section 2.814.

2.2.2.41 PidTagICalendarStartTime

DAV property name: urn:schemas:calendar:dtstart

Data type: PtypTime

Gets or sets the calculated date and time when the 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](#))

For more details about [PidTagICalendarStartTime](#), see [\[MS-OXPROPS\]](#) section 2.815.

2.2.2.42 PidTagLastModificationTime

DAV property names: urn:schemas:calendar:lastmodifiedtime, DAV:getlastmodified

Data type: PtypTime

Gets or sets the date and time when the appointment was last saved.

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.

For more details about [PidTagLastModificationTime](#), see [\[MS-OXPROPS\]](#) section 2.866 and [\[MS-OXCMSG\]](#) section 2.2.2.2.

2.2.2.43 PidTagResponseRequested

DAV property names: urn:schemas:calendar:responserequested, http://schemas.microsoft.com/mapi/response_requested

Data type: PtypBoolean

Gets or sets a value that indicates whether the originator of the meeting requested a response. True if a response is requested; otherwise, false.

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.

For more details about [PidTagResponseRequested](#), see [\[MS-OXPROPS\]](#) section 2.1039.

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

DAV property name: urn:schemas:httpmail:calendar

Data type: PtypString

Gets the calculated 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.

For more details about [PidNameHttpmailCalendar](#), see [\[MS-OXPROPS\]](#) section 2.479.

2.2.3.2 PidNameHttpmailHtmlDescription

DAV property name: urn:schemas:httpmail:htmldescription

Data type: PtypString

Gets or sets the HTML content of the message.

For more details about [PidNameHttpmailHtmlDescription](#), see [\[MS-OXPROPS\]](#) section 2.485.

2.2.3.3 PidNameHttpmailSendMessage

DAV property name: urn:schemas:httpmail:sendmsg

Data type: PtypString

Gets the calculated mail submission URI to which outgoing mail is submitted.

For more details about [PidNameHttpmailSendMessage](#), see [\[MS-OXPROPS\]](#) section 2.487.

2.2.3.4 PidTagBody

DAV property name: urn:schemas:httpmail:textdescription

Data type: PtypString

Gets or sets the **plain text** content of the message.

For more details about [PidTagBody](#), see [\[MS-OXPROPS\]](#) section 2.687 and [\[MS-OXCMSG\]](#) section 2.2.1.20.1.

2.2.3.5 PidTagHasAttachments

DAV property name: urn:schemas:httpmail:hasattachment

Data type: PtypBoolean

Gets a value that indicates whether or not the message has **attachments**. True if the message has attachments; otherwise, false.

For more details about [PidTagHasAttachments](#), see [\[MS-OXPROPS\]](#) section 2.796 and [\[MS-OXCMSG\]](#) section 2.2.1.2.

2.2.3.6 PidTagNormalizedSubject

DAV property name: urn:schemas:httpmail:normalizesubject

Data type: PtypString

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

For more details about [PidTagNormalizedSubject](#), see [\[MS-OXPROPS\]](#) section 2.912 and [\[MS-OXCMSG\]](#) section 2.2.1.10.

2.2.3.7 PidTagPriority

DAV property name: urn:schemas:httpmail:priority

Data type: PtypInteger32

Gets or sets the priority at which the message is to be sent by the messaging system.

For more details about [PidTagPriority](#), see [\[MS-OXPROPS\]](#) section 2.978 and [\[MS-OXCMSG\]](#) section 2.2.1.12.

2.2.3.8 PidTagRead

DAV property name: urn:schemas:httpmail:read

Data type: PtypBoolean

Gets or sets a value that indicates whether the Calendar object has been read. True if the Calendar object has been read; otherwise, false.

For more details about [PidTagRead](#), see [\[MS-OXPROPS\]](#) section 2.988.

2.2.3.9 PidTagSubject

DAV property name: urn:schemas:httpmail:subject

Data type: PtypString

Gets or sets 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.

For more details about [PidTagSubject](#), see [\[MS-OXPROPS\]](#) section 2.1158.

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

DAV property name: urn:schemas:mailheader:subject

Data type: PtypString

Gets or sets the subject of the message. This property differs from the [PidTagSubject](#) property only in that all [\[RFC1522\]](#) encoded characters are not decoded.

For more details about [PidNameInternetSubject](#), see [\[MS-OXPROPS\]](#) section 2.498.

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

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

2.2.5.1 PidNameExchDatabaseSchema

DAV property name: urn:schemas-microsoft-com:exch-data:baseschema

Data type: PtypMultipleString

Gets or sets 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. Clients and servers 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.

For more details about [PidNameExchDatabaseSchema](#), see [\[MS-OXPROPS\]](#) section 2.470.

2.2.5.2 PidNameExchDataExpectedContentClass

DAV property name: urn:schemas-microsoft-com:exch-data:expected-content-class

Data type: PtypMultipleString

Gets or sets 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.

For more details about [PidNameExchDataExpectedContentClass](#), see [\[MS-OXPROPS\]](#) section 2.471.

2.2.5.3 PidNameExchDataSchemaCollectionReference

DAV property name: urn:schemas-microsoft-com:exch-data:schema-collection-ref

Data type: PtypString

Gets or sets 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.

For more details about [PidNameExchDataSchemaCollectionReference](#), see [\[MS-OXPROPS\]](#) section 2.472.

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

DAV property names: urn:schemas-microsoft-com:office:office#Keywords,
<http://schemas.microsoft.com/exchange/keywords-utf8>

Data type: PtypMultipleString

Gets or sets a list of keywords for the Calendar object. The [PidNameKeywords](#) property is further specified in [\[MS-OXCMSG\]](#) section 2.2.1.17.

For more details about [PidNameKeywords](#), see [\[MS-OXPROPS\]](#) section 2.499.

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

DAV property name: <http://schemas.microsoft.com/mapi/allattendeesstring>

Data type: PtypString

Gets or sets a list of all the attendees except for the organizer, including resources and **unsendable attendees**.

For more details about [PidLidAllAttendeesString](#), see [\[MS-OXPROPS\]](#) section 2.6 and [\[MS-OXOCAL\]](#) section 2.2.1.16.

2.2.7.2 PidLidAppointmentDuration

DAV property name: <http://schemas.microsoft.com/mapi/apptduration>

Data type: PtypInteger32

Gets or sets the length of the event, in minutes.

For more details about [PidLidAppointmentDuration](#), see [\[MS-OXPROPS\]](#) section 2.12 and [\[MS-OXOCAL\]](#) section 2.2.1.7.

2.2.7.3 PidLidAppointmentEndDate

DAV property name: <http://schemas.microsoft.com/mapi/apptenddate>

Data type: PtypTime

Gets or sets the calculated appointment end date.

For more details about [PidLidAppointmentEndDate](#), see [\[MS-OXPROPS\]](#) section 2.13.

2.2.7.4 PidLidAppointmentEndTime

DAV property name: <http://schemas.microsoft.com/mapi/apptendtime>

Data type: PtypTime

Gets or sets the calculated appointment end time.

For more details about [PidLidAppointmentEndTime](#) see [\[MS-OXPROPS\]](#) section 2.14.

2.2.7.5 PidLidAppointmentEndWhole

DAV property name: <http://schemas.microsoft.com/mapi/apptendwhole>

Data type: PtypTime

Gets or sets the calculated end date and time for the event in UTC and MUST be greater than the value of the [PidLidAppointmentStartWhole](#) property.

For more details about [PidLidAppointmentEndWhole](#), see [\[MS-OXPROPS\]](#) section 2.15 and [\[MS-OXOCAL\]](#) section 2.2.1.6.

2.2.7.6 PidLidAppointmentRecur

Property name: <http://schemas.microsoft.com/mapi/apptrecur>

Data type: PtypBinary

Gets or sets the dates and times when a recurring series occurs by using one of the recurrence patterns and ranges specified in [\[MS-OXOCAL\]](#) section 2.2.1.44.

For more details about [PidLidAppointmentRecur](#), see [\[MS-OXPROPS\]](#) section 2.23.

2.2.7.7 PidLidAppointmentReplyName

DAV property name: <http://schemas.microsoft.com/mapi/apptreplyname>

Data type: PtypString

Gets or sets the name of the user who last replied to the Meeting Request object or **Meeting Update object**.

For more details about [PidLidAppointmentReplyName](#), see [\[MS-OXPROPS\]](#) section 2.24 and [\[MS-OXOCAL\]](#) section 2.2.4.5.

2.2.7.8 PidLidAppointmentReplyTime

DAV property names: <http://schemas.microsoft.com/mapi/apptreplytime>,
<urn:schemas:calendar:replytime>

Data type: PtypTime

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

For more details about [PidLidAppointmentReplyTime](#), see [\[MS-OXPROPS\]](#) section 2.25 and [\[MS-OXOCAL\]](#) section 2.2.4.3.

2.2.7.9 PidLidAppointmentSequence

DAV property name: <http://schemas.microsoft.com/mapi/apptsequence>

Data type: PtypInteger32

Gets or sets the sequence number of a **Meeting object**.

For more details about [PidLidAppointmentSequence](#), see [\[MS-OXPROPS\]](#) section 2.26 and [\[MS-OXOCAL\]](#) section 2.2.1.1.

2.2.7.10 PidLidAppointmentStartDate

DAV property name: <http://schemas.microsoft.com/mapi/apptstartdate>

Data type: PtypTime

Gets or sets the calculated 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.

For more details about [PidLidAppointmentStartWhole](#), see [\[MS-OXPROPS\]](#) section 2.30.

2.2.7.11 PidLidAppointmentStartTime

DAV property name: <http://schemas.microsoft.com/mapi/apptstarttime>

Data type: PtypTime

Gets or sets the time the appointment starts.

For more details about [PidLidAppointmentStartTime](#), see [\[MS-OXPROPS\]](#) section 2.29.

2.2.7.12 PidLidAppointmentStartWhole

DAV property name: <http://schemas.microsoft.com/mapi/apptstartwhole>

Data type: PtypTime

Gets or sets the calculated start date and time of the event; MUST be in UTC and MUST be less than the value of the [PidLidAppointmentEndWhole](#) property.

For more details about [PidLidAppointmentStartWhole](#), see [\[MS-OXPROPS\]](#) section 2.30 and [\[MS-OXOCAL\]](#) section 2.2.1.5.

2.2.7.13 PidLidAppointmentStateFlags

DAV property name: <http://schemas.microsoft.com/mapi/apptstateflags>

Data type: PtypInteger32

Gets or sets the calculated bit field that describes the state of the object. The flag values are specified in [\[MS-OXOCAL\]](#) section 2.2.1.10.

For more details about [PidLidAppointmentStateFlags](#), see [\[MS-OXPROPS\]](#) section 2.31 and [\[MS-OXOCAL\]](#) section 2.2.1.10.

2.2.7.14 PidLidAppointmentSubType

DAV property names: <http://schemas.microsoft.com/mapi/apptsubtype>,
<urn:schemas:calendar:alldayevent>

Data type: PtypBoolean

Gets or sets a value that indicates whether the event is an all-day event. True if the event is an all-day event; otherwise, false.

For more details about [PidLidAppointmentSubType](#), see [\[MS-OXPROPS\]](#) section 2.32 and [\[MS-OXOCAL\]](#) section 2.2.1.9.

2.2.7.15 PidLidAppointmentUpdateTime

DAV property name: <http://schemas.microsoft.com/mapi/apptupdatetime>

Data type: PtypTime

Gets or sets the time at which the appointment was last updated.

For more details about [PidLidAppointmentUpdateTime](#), see [\[MS-OXPROPS\]](#) section 2.37.

2.2.7.16 PidLidAttendeeCriticalChange

DAV property name: http://schemas.microsoft.com/mapi/attendee_critical_change

Data type: PtypTime

Gets or sets the calculated date and time at which the **meeting-related object** was sent.

For more details about [PidLidAttendeeCriticalChange](#), see [\[MS-OXPROPS\]](#) section 2.38 and [\[MS-OXOCAL\]](#) section 2.2.5.2.

2.2.7.17 PidLidBusyStatus

DAV property name: <http://schemas.microsoft.com/mapi/busystatus>

Data type: PtypInteger32

Gets or sets the calculated availability of a user for the event described by the object. Valid values are specified in [\[MS-OXOCAL\]](#) section 2.2.1.2.

For more details about [PidLidBusyStatus](#), see [\[MS-OXPROPS\]](#) section 2.49 and [\[MS-OXOCAL\]](#) section 2.2.1.2.

2.2.7.18 PidLidCalendarType

DAV property name: http://schemas.microsoft.com/mapi/calendar_type

Data type: PtypInteger32

When the Meeting Request object represents a **recurring series** or an exception, this property gets or sets the value of the CalendarType field ([\[MS-OXOCAL\]](#) section 2.2.1.44.1) from the [PidLidAppointmentRecur](#) property, as specified in section 2.2.7.6 and [\[MS-OXOCAL\]](#) section 2.2.1.44. If the value of the CalendarType field of the PidLidAppointmentRecur recurrence pattern is zero (0x0000), then the [PidLidCalendarType](#) property is computed as Gregorian (1).

For more details about [PidLidCalendarType](#), see [\[MS-OXPROPS\]](#) section 2.50 and [\[MS-OXOCAL\]](#) section 2.2.6.11.

2.2.7.19 PidLidDayInterval

DAV property name: http://schemas.microsoft.com/mapi/day_interval

Data type: PtypInteger16

Gets or sets the calculated day interval for the recurrence pattern. [<3>](#)

For more details about [PidLidDayInterval](#), see [\[MS-OXPROPS\]](#) section 2.87.

2.2.7.20 PidLidDayOfMonth

DAV property name: <http://schemas.microsoft.com/mapi/dayofmonth>

Data type: PtypInteger32

Gets or sets the day of the month for the appointment or meeting.

For more details about [PidLidDayOfMonth](#), see [\[MS-OXPROPS\]](#) section 2.88.

2.2.7.21 PidLidDelegateMail

DAV property name: http://schemas.microsoft.com/mapi/delegate_mail

Data type: PtypBoolean

Gets or sets a value that indicates whether a **delegate** responded to the meeting request. True if the delegate responded to the request; otherwise, false.

For more details about [PidLidDelegateMail](#), see [\[MS-OXPROPS\]](#) section 2.89.

2.2.7.22 PidLidEndRecurrenceDate

DAV property name: http://schemas.microsoft.com/mapi/end_recur_date

Data type: PtypInteger32

Gets or sets the calculated the end date of the recurrence range.

For more details about [PidLidEndRecurrenceDate](#), see [\[MS-OXPROPS\]](#) section 2.116.

2.2.7.23 PidLidEndRecurrenceTime

DAV property name: http://schemas.microsoft.com/mapi/end_recur_time

Data type: PtypInteger32

Gets or sets the end time of the recurrence range.

For more details about [PidLidEndRecurrenceTime](#), see [\[MS-OXPROPS\]](#) section 2.117.

2.2.7.24 PidLidFInvited

DAV property name: <http://schemas.microsoft.com/mapi/finvited>

Data type: PtypBoolean

Gets or sets a calculated value that indicates whether invitations have been sent for the meeting that this Meeting object represents. True if invitations have been sent; otherwise, false.

For more details about [PidLidFInvited](#), see [\[MS-OXPROPS\]](#) section 2.136 and [\[MS-OXOCAL\]](#) section 2.2.4.4.

2.2.7.25 PidLidFlagRequest

DAV property names: <http://schemas.microsoft.com/mapi/request>,
<urn:schemas:httpmail:messageflag>

Data type: PtypString

Gets or sets the user-specified text associated with the flag.

For more details about [PidLidFlagRequest](#), see [\[MS-OXPROPS\]](#) section 2.137 and [\[MS-OXOFLAG\]](#) section 2.2.1.9.

2.2.7.26 PidLidFOthersAppointment

DAV property name: <http://schemas.microsoft.com/mapi/fothersappt>

Data type: PtypBoolean

Gets or sets a value on the in-memory object that indicates whether the **calendar** folder from which the meeting was opened is another user's calendar. True if the calendar folder from which the meeting was opened is another user's calendar; otherwise, false.

For more details about [PidLidFOthersAppointment](#), see [\[MS-OXPROPS\]](#) section 2.141.

2.2.7.27 PidLidICalendarDayOfWeekMask

DAV property name: <http://schemas.microsoft.com/mapi/dayofweekmask>

Data type: PtypInteger32

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

For more details about [PidLidCalendarDayOfWeekMask](#), see [\[MS-OXPROPS\]](#) section 2.148.

2.2.7.28 PidLidIntendedBusyStatus

DAV property name: <http://schemas.microsoft.com/mapi/intendedbusystatus>

Data type: PtypInteger32

Gets or sets the calculated value of the [PidLidBusyStatus](#) property on the Meeting object in the organizer's calendar at the time the Meeting Request object or Meeting Update object was sent. The allowable values of this property are the same as those for the [PidLidBusyStatus](#) property.

For more details about [PidLidIntendedBusyStatus](#), see [\[MS-OXPROPS\]](#) section 2.152 and [\[MS-OXOCAL\]](#) section 2.2.6.4.

2.2.7.29 PidLidIsException

DAV property name: http://schemas.microsoft.com/mapi/is_exception

Data type: PtypBoolean

Gets or sets a calculated value that indicates whether the object represents an exception (including an **orphan instance**). True if the object represents an exception. False if the object represents a recurring series or a single instance. The absence of this property for any object indicates a value of false except for the **Exception Embedded Message object**, which assumes a value of true.

For more details about [PidLidIsException](#), see [\[MS-OXPROPS\]](#) section 2.155 and [\[MS-OXOCAL\]](#) section 2.2.1.35.

2.2.7.30 PidLidIsRecurring

DAV property name: http://schemas.microsoft.com/mapi/is_recurring

Data type: PtypBoolean

Gets or sets a value that indicates whether the object is associated with a recurring series. True if the object represents either a recurring series or an exception (including an orphan instance); otherwise, false.

For more details about [PidLidIsRecurring](#), see [\[MS-OXPROPS\]](#) section 2.156 and [\[MS-OXOCAL\]](#) section 2.2.1.13.

2.2.7.31 PidLidIsSilent

DAV property name: http://schemas.microsoft.com/mapi/is_silent

Data type: PtypBoolean

Gets or sets a value that indicates whether the user included text in the body of the **Meeting Response object**. True if the user did not include any text in the body of the Meeting Response object; otherwise, false.

For more details about [PidLidIsSilent](#), see [\[MS-OXPROPS\]](#) section 2.157 and [\[MS-OXOCAL\]](#) section 2.2.7.7.

2.2.7.32 PidLidMeetingWorkspaceUrl

DAV property names: <http://schemas.microsoft.com/mapi/meetingworkspaceurl>,
<urn:schemas:calendar:replytime>

Data type: PtypString

Gets or sets the URL of the **Meeting Workspace**, as specified in [\[MS-MEETS\]](#), that is associated with a Calendar object.

For more details about [PidLidAppointmentReplyTime](#), see [\[MS-OXPROPS\]](#) section 2.25 and [\[MS-OXOCAL\]](#) section 2.2.1.7.

2.2.7.33 PidLidMonthInterval

DAV property name: http://schemas.microsoft.com/mapi/month_interval

Data type: PtypInteger16

Gets or sets a calculated value that indicates the monthly interval of the appointment or meeting. [<4>](#)

For more details about [PidLidMonthInterval](#), see [\[MS-OXPROPS\]](#) section 2.172.

2.2.7.34 PidLidMonthOfYear

DAV property name: <http://schemas.microsoft.com/mapi/monthofyear>

Data type: PtypInteger32

Gets or sets the month of the year that the appointment or meeting occurs.

For more details about [PidLidMonthOfYear](#), see [\[MS-OXPROPS\]](#) section 2.173.

2.2.7.35 PidLidMonthOfYearMask

DAV property name: http://schemas.microsoft.com/mapi/moy_mask

Data type: PtypInteger32

Gets or sets the calculated month of the year that the appointment or meeting occurs.

For more details about [PidLidMonthOfYearMask](#), see [\[MS-OXPROPS\]](#) section 2.174.

2.2.7.36 PidLidNoEndDateFlag

DAV property name: <http://schemas.microsoft.com/mapi/fnoenddate>

Data type: PtypBoolean

Gets or sets a value that indicates whether the recurrence pattern has an end date. True if there is no end date; otherwise, false. This property is not validated or enforced by the server. It is the responsibility of the client to keep this property synchronized and give it meaning.

For more details about [PidLidNoEndDateFlag](#), see [\[MS-OXPROPS\]](#) section 2.176.

2.2.7.37 PidLidNonSendableBcc

DAV property name: <http://schemas.microsoft.com/mapi/nonsendablebcc>

Data type: PtypString

Gets or sets a list of all the unsendable attendees who are also **resources**.

For more details about [PidLidNonSendableBcc](#), see [\[MS-OXPROPS\]](#) section 2.177 and [\[MS-OXOCAL\]](#) section 2.2.1.21.

2.2.7.38 PidLidNonSendableCc

DAV property name: <http://schemas.microsoft.com/mapi/nonsendablecc>

Data type: PtypString

Gets or sets a list of all the unsendable attendees who are also **optional attendees**.

For more details about [PidLidNonSendableCc](#), see [\[MS-OXPROPS\]](#) section 2.178 and [\[MS-OXOCAL\]](#) section 2.2.1.20.

2.2.7.39 PidLidNonSendableTo

DAV property name: <http://schemas.microsoft.com/mapi/nonsendableto>

Data type: PtypString

Gets or sets a list of all the unsendable attendees who are also **required attendees**.

For more details about [PidLidNonSendableTo](#), see [\[MS-OXPROPS\]](#) section 2.179 and [\[MS-OXOCAL\]](#) section 2.2.1.19.

2.2.7.40 PidLidNonSendBccTrackStatus

DAV property name: <http://schemas.microsoft.com/mapi/nonsendbcctrackstatus>

Data type: PtypMultipleInteger32

Gets or sets a value from the response **table** (see [\[MS-OXOCAL\]](#) section 2.2.1.11) for each attendee listed in the [PidLidNonSendableBcc](#) property.

For more details about [PidLidNonSendBccTrackStatus](#), see [\[MS-OXPROPS\]](#) section 2.180 and [\[MS-OXOCAL\]](#) section 2.2.1.24.

2.2.7.41 PidLidNonSendCcTrackStatus

DAV property name: <http://schemas.microsoft.com/mapi/nonsendcctrackstatus>

Data type: PtypMultipleInteger32

Gets or sets the value from the response table for each attendee listed in the [PidLidNonSendableCc](#) property.

For additional information about [PidLidNonSendCcTrackStatus](#), see [\[MS-OXPROPS\]](#) section 2.181 and [\[MS-OXOCAL\]](#) section 2.2.1.23.

2.2.7.42 PidLidNonSendToTrackStatus

DAV property name: <http://schemas.microsoft.com/mapi/nonsendtotrackstatus>

Data type: PtypMultipleInteger32

Gets or sets the value from the response table (see [\[MS-OXOCAL\]](#) section 2.2.1.11) for each attendee listed in the [PidLidNonSendableTo](#) property.

For more details about [PidLidNonSendToTrackStatus](#), see [\[MS-OXPROPS\]](#) section 2.182 and [\[MS-OXOCAL\]](#) section 2.2.1.22.

2.2.7.43 PidLidOccurrences

DAV property name: <http://schemas.microsoft.com/mapi/occurrences>

Data type: PtypInteger32

Gets or sets the number of occurrences in the recurring appointment or meeting.

For more details about [PidLidOccurrences](#), see [\[MS-OXPROPS\]](#) section 2.188.

2.2.7.44 PidLidOldRecurrenceType

DAV property name: http://schemas.microsoft.com/mapi/recur_type

Data type: PtypInteger16

Gets or sets the recurrence pattern for the appointment or meeting.

The following table lists the valid values:

| Description | Value |
|---|---------|
| The appointment occurs only once. | Not set |
| The appointment recurs daily. | 64 |
| The appointment recurs weekly. | 48 |
| The appointment recurs monthly. | 12 |
| The appointment recurs every nth month. | 56 |
| The appointment recurs yearly. | 7 |
| The appointment recurs every nth year. | 51 |

For more details about [PidLidOldRecurrenceType](#), see [\[MS-OXPROPS\]](#) section 2.190.

2.2.7.45 PidLidOptionalAttendees

DAV property name: http://schemas.microsoft.com/mapi/optional_attendees

Data type: PtypString

The [PidLidOptionalAttendees](#) property is further specified in [\[MS-OXPROPS\]](#) section 2.194. [<5>](#)

2.2.7.46 PidLidOwnerCriticalChange

DAV property names: http://schemas.microsoft.com/mapi/owner_critical_change,
<urn:schemas:calendar:dtstamp>

Data type: PtypTime

Gets or sets the date and time at which a Meeting Request object was sent by the organizer. The value is specified in UTC.

This property corresponds to the **DTSTAMP** property, as specified in [\[MS-OXCICAL\]](#) section 2.2.1.20.9

For more details about [PidLidOwnerCriticalChange](#), see [\[MS-OXPROPS\]](#) section 2.199 and [\[MS-OXOCAL\]](#) section 2.2.1.34.

2.2.7.47 PidLidOwnerName

DAV property name: <http://schemas.microsoft.com/mapi/ownername>

Data type: PtypString

Gets or sets the name of the owner of the mailbox.

For more details about [PidLidOwnerName](#), see [\[MS-OXPROPS\]](#) section 2.200.

2.2.7.48 PidLidRecurrenceDuration

DAV property name: <http://schemas.microsoft.com/mapi/recurduration>

Data type: PtypInteger32

Gets or sets the length, in minutes, of the appointment or meeting.

For more details about [PidLidRecurrenceDuration](#), see [\[MS-OXPROPS\]](#) section 2.212.

2.2.7.49 PidLidRecurrencePattern

DAV property name: <http://schemas.microsoft.com/mapi/recurpattern>

Data type: PtypString

Gets or sets a description of the recurrence pattern of the Calendar object.

For more details about [PidLidRecurrencePattern](#), see [\[MS-OXPROPS\]](#) section 2.213 and [\[MS-OXOCAL\]](#) section 2.2.1.46.

2.2.7.50 PidLidRecurrenceType

DAV property name: <http://schemas.microsoft.com/mapi/recurtype>

Data type: PtypInteger32

Gets or sets the calculated recurrence type of the recurring series by using one of the values listed in [\[MS-OXOCAL\]](#) section 2.2.1.45.

For more details about [PidLidRecurrenceType](#), see [\[MS-OXPROPS\]](#) section 2.214 and [\[MS-OXOCAL\]](#) section 2.2.1.45.

2.2.7.51 PidLidRecurring

DAV property name: <http://schemas.microsoft.com/mapi/recurring>

Data type: PtypBoolean

Gets or sets the calculated value that indicates whether the object represents a recurring series.

For more details about [PidLidRecurring](#), see [\[MS-OXPROPS\]](#) section 2.215 and [\[MS-OXOCAL\]](#) section 2.2.1.12.

2.2.7.52 PidLidReminderDelta

DAV property name: <http://schemas.microsoft.com/mapi/reminderdelta>

Data type: PtypInteger32

Gets or sets the calculated interval, in minutes, between the time at which the reminder first becomes overdue and the start time of the Calendar object.

For more details about [PidLidReminderDelta](#), see [\[MS-OXPROPS\]](#) section 2.218 and [\[MS-OXORMDR\]](#) section 2.2.1.3.

2.2.7.53 PidLidReminderFileParameter

DAV property name: <http://schemas.microsoft.com/mapi/reminderfileparam>

Data type: PtypString

Gets or sets the filename of the sound that a client SHOULD play when the reminder for that object becomes overdue.

For more details about [PidLidReminderFileParameter](#), see [\[MS-OXPROPS\]](#) section 2.219 and [\[MS-OXORMDR\]](#) section 2.2.1.7.

2.2.7.54 PidLidReminderOverride

DAV property name: <http://schemas.microsoft.com/mapi/reminderoverride>

Data type: PtypBoolean

Gets or sets a value that indicates whether the client SHOULD adhere to the values of [PidLidReminderPlaySound](#) and [PidLidReminderFileParameter](#), as specified in sections [2.2.7.55](#) and [2.2.7.53](#) respectively. True if the values should be adhered to; otherwise, false.

For more details about [PidLidReminderOverride](#), see [\[MS-OXPROPS\]](#) section 2.220 and [\[MS-OXORMDR\]](#) section 2.2.1.5.

2.2.7.55 PidLidReminderPlaySound

DAV property name: <http://schemas.microsoft.com/mapi/reminderplaysound>

Data type: PtypBoolean

Gets or sets a value that indicates whether the client SHOULD play a sound when the reminder becomes overdue. True if the client SHOULD play a sound; otherwise, false.

For more details about [PidLidReminderPlaySound](#), see [\[MS-OXPROPS\]](#) section 2.221 and [\[MS-OXORMDR\]](#) section 2.2.1.6.

2.2.7.56 PidLidReminderSet

DAV property name: http://schemas.microsoft.com/mapi/reminderset

Data type: PtypBoolean

Gets or sets a calculated value that indicates whether a reminder is set on the object. True if a reminder is set on the object; otherwise, false.

For more details about [PidLidReminderSet](#), see [\[MS-OXPROPS\]](#) section 2.222 and [\[MS-OXORMDR\]](#) section 2.2.1.1.

2.2.7.57 PidLidReminderSignalTime

DAV property name: http://schemas.microsoft.com/mapi/remindernexttime

Data type: PtypTime

Gets or sets the calculated time when a reminder transitions from pending to overdue.

For more details about [PidLidReminderSignalTime](#), see [\[MS-OXPROPS\]](#) section 2.223 and [\[MS-OXORMDR\]](#) section 2.2.1.2.

2.2.7.58 PidLidReminderTime

DAV property name: http://schemas.microsoft.com/mapi/remindertime

Data type: PtypTime

For non-Calendar objects, gets or sets the initial **signal time**. For Calendar objects, gets or sets the time after which the user would be late; that is, the start time of the appointment.

For more details about [PidLidReminderTime](#), see [\[MS-OXPROPS\]](#) section 2.224 and [\[MS-OXOCAL\]](#) section 2.2.1.4.

2.2.7.59 PidLidReminderTimeDate

Canonical name: [PidLidReminderTimeDate](#)

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

Data type: PtypTime

Gets or sets the time and date of the reminder for the appointment or meeting.

For more details about [PidLidReminderTimeDate](#), see [\[MS-OXPROPS\]](#) section 2.225.

2.2.7.60 PidLidReminderTimeTime

DAV property name: http://schemas.microsoft.com/mapi/remindertimetime

Data type: PtypTime

Gets or sets a value that indicates the time of the reminder for the appointment or meeting.

For more details about [PidLidReminderTimeTime](#), see [\[MS-OXPROPS\]](#) section 2.226.

2.2.7.61 PidLidReminderType

DAV property name: http://schemas.microsoft.com/mapi/remindertype

Data type: PtypInteger32

SHOULD NOT be set, and MUST be ignored.

For more details about [PidLidReminderType](#), see [\[MS-OXPROPS\]](#) section 2.227 and [\[MS-OXORMDR\]](#) section 2.2.1.9.

2.2.7.62 PidLidRemoteStatus

DAV property name: http://schemas.microsoft.com/mapi/remotestatus

Data type: PtypInteger32

Gets or sets a value that 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 |

For more details about [PidLidRemoteStatus](#), see [\[MS-OXPROPS\]](#) section 2.228.

2.2.7.63 PidLidRequiredAttendees

DAV property name: http://schemas.microsoft.com/mapi/required_attendees

Data type: PtypString

Gets or sets the required attendees for the appointment or meeting. [<6>](#)

For more details about [PidLidRequiredAttendees](#), see [\[MS-OXPROPS\]](#) section 2.229.

2.2.7.64 PidLidResourceAttendees

DAV property name: http://schemas.microsoft.com/mapi/resource_attendees

Data type: PtypString

Gets or sets the resource attendees for the appointment or meeting. <7>

For more details about [PidLidResourceAttendees](#), see [\[MS-OXPROPS\]](#) section 2.230.

2.2.7.65 PidLidResponseStatus

DAV property names: <http://schemas.microsoft.com/mapi/responsestatus>,
<urn:schemas:calendar:attendeestatus>

Data type: PtypInteger32

The [PidLidResponseStatus](#) property is further specified in [\[MS-OXOCAL\]](#) section 2.2.1.11.

Gets or sets the calculated response status of the attendee.

For more details about [PidLidResponseStatus](#), see [\[MS-OXPROPS\]](#) section 2.231 and [\[MS-OXOCAL\]](#) section 2.2.1.11.

2.2.7.66 PidLidStartRecurrenceDate

DAV property name: http://schemas.microsoft.com/mapi/start_recur_date

Data type: PtypInteger32

Gets or sets the calculated the start date of the recurrence pattern. <8>

For more details about [PidLidStartRecurrenceDate](#), see [\[MS-OXPROPS\]](#) section 2.305.

2.2.7.67 PidLidStartRecurrenceTime

DAV property name: http://schemas.microsoft.com/mapi/start_recur_time

Data type: PtypInteger32

Gets or sets the calculated start time of the recurrence pattern. <9>

For more details about [PidLidStartRecurrenceTime](#), see [\[MS-OXPROPS\]](#) section 2.306.

2.2.7.68 PidLidTimeZone

DAV property name: http://schemas.microsoft.com/mapi/time_zone

Data type: PtypInteger32

Gets or sets information about the time zone of a recurring meeting, as specified in [\[MS-OXOCAL\]](#) section 2.2.5.4.

For more details about [PidLidTimeZone](#), see [\[MS-OXPROPS\]](#) section 2.342.

2.2.7.69 PidLidTimeZoneDescription

DAV property name: <http://schemas.microsoft.com/mapi/timezonedesc>

Data type: PtypString

Gets or sets the calculated human-readable description of the time zone that is represented by the data in the [PidLidTimeZoneStruct](#) property, as specified in section [2.2.7.70](#).

For more details about [PidLidTimeZoneDescription](#), see [\[MS-OXPROPS\]](#) section 2.343 and [\[MS-OXOCAL\]](#) section 2.2.1.40.

2.2.7.70 PidLidTimeZoneStruct

DAV property name: <http://schemas.microsoft.com/mapi/timezonestruct>

Data type: PtypBinary

Gets or sets the calculated information to convert time fields between local time and UTC, as specified in [\[MS-OXOCAL\]](#) section 2.2.1.39.

For more details about [PidLidTimeZoneStruct](#), see [\[MS-OXPROPS\]](#) section 2.344.

2.2.7.71 PidLidWeekInterval

DAV property name: http://schemas.microsoft.com/mapi/week_interval

Data type: PtypInteger16

Gets or sets the calculated number of weeks that occur between each meeting. [<10>](#)

For more details about [PidLidWeekInterval](#), see [\[MS-OXPROPS\]](#) section 2.355.

2.2.7.72 PidLidWhere

DAV property name: <http://schemas.microsoft.com/mapi/where>

Data type: PtypString

Gets or sets a calculated value that SHOULD be the same as the value of the [PidLidLocation](#) property from the associated Meeting object.

For more details about [PidLidWhere](#), see [\[MS-OXPROPS\]](#) section 2.356 and [\[MS-OXOCAL\]](#) section 2.2.5.3.

2.2.7.73 PidLidYearInterval

DAV property name: http://schemas.microsoft.com/mapi/year_interval

Data type: PtypInteger16

Gets or sets the calculated yearly interval of the appointment or meeting. [<11>](#)

For more details about [PidLidYearInterval](#), see [\[MS-OXPROPS\]](#) section 2.365.

2.2.7.74 PidTagEndDate

DAV property name: http://schemas.microsoft.com/mapi/end_date

Data type: PtypTime

Gets or sets a calculated value, that SHOULD be set, and when set, MUST be equal to the value of the [PidLidAppointmentEndWhole](#) property, as specified in section [2.2.7.5](#).

For more details about [PidTagEndDate](#), see [\[MS-OXPROPS\]](#) section 2.757 and [\[MS-OXOCAL\]](#) section 2.2.1.31.

2.2.7.75 PidTagOwnerAppointmentId

DAV property name: http://schemas.microsoft.com/mapi/owner_appt_id

Data type: PtypInteger32

Gets or sets a calculated quasi-unique value among all Calendar objects in a user's mailbox.

For more details about [PidTagOwnerAppointmentId](#), see [\[MS-OXPROPS\]](#) section 2.962 and [\[MS-OXOCAL\]](#) section 2.2.1.29.

2.2.7.76 PidTagResponseRequested

DAV property names: http://schemas.microsoft.com/mapi/response_requested,
<urn:schemas:calendar:responserequested>

Data type: PtypBoolean

Gets or sets a value that indicates whether the organizer of the meeting requested a response. True if a response is requested; otherwise, false.

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.

For more details about [PidTagResponseRequested](#), see [\[MS-OXPROPS\]](#) section 2.1039 and [\[MS-OXOCAL\]](#) section 2.2.1.36.

2.2.7.77 PidTagStartDate

DAV property name: http://schemas.microsoft.com/mapi/start_date

Data type: PtypTime

Gets or sets a calculated value that SHOULD be set, and when set, it MUST be equal to the value of the [PidLidAppointmentStartWhole](#) property, as specified in section [2.2.7.12](#).

For more details about [PidTagStartDate](#), see [\[MS-OXPROPS\]](#) section 2.1143 and [\[MS-OXOCAL\]](#) 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

DAV property name: <http://schemas.microsoft.com/exchange/intendedbusystatus>

Data type: PtypInteger32

Gets or sets the busy status of the user during an appointment or meeting.

For more details about [PidNameExchangeIntendedBusyStatus](#), see [\[MS-OXPROPS\]](#) section 2.460.

2.2.8.2 PidNameExchangeModifyExceptionStructure

DAV property name: <http://schemas.microsoft.com/exchange/modifyexceptionstruct>

Data type: PtypBinary

Gets or sets a calculated structure that modifies an exception to the recurrence.

For more details about [PidNameExchangeModifyExceptionStructure](#), see [\[MS-OXPROPS\]](#) section 2.462.

2.2.8.3 PidNameExchangeNoModifyExceptions

DAV property name: <http://schemas.microsoft.com/exchange/nomodifyexceptions>

Data type: PtypBoolean

Gets a calculated value that indicates whether there are exceptions for the recurring appointment. True if no exceptions exist; otherwise, false.

For more details about [PidNameExchangeNoModifyExceptions](#), see [\[MS-OXPROPS\]](#) section 2.465.

2.2.8.4 PidNameExchangePatternEnd

DAV property name: <http://schemas.microsoft.com/exchange/patternend>

Data type: PtypTime

Gets or sets 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.

For more details about [PidNameExchangePatternEnd](#), see [\[MS-OXPROPS\]](#) section 2.466.

2.2.8.5 PidNameExchangePatternStart

DAV property name: <http://schemas.microsoft.com/exchange/patternstart>

Data type: PtypTime

Gets or sets the calculated 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.

For more details about [PidNameExchangePatternStart](#), see [\[MS-OXPROPS\]](#) section 2.467.

2.2.8.6 PidNameExchangeReminderInterval

DAV property name: <http://schemas.microsoft.com/exchange/reminderinterval>

Data type: PtypInteger32

Gets or sets the time, in seconds, between reminders.

For more details about [PidNameExchangeReminderInterval](#), see [\[MS-OXPROPS\]](#) section 2.469.

2.2.8.7 PidTagContainerClass

DAV property name: <http://schemas.microsoft.com/exchange/outlookfolderclass>

Data type: PtypString

Gets or sets the container class for the Calendar folder.

For more details about [PidTagContainerClass](#), see [\[MS-OXPROPS\]](#) section 2.716 and [\[MS-OXOCAL\]](#) section 2.2.10.1.

2.2.8.8 PidTagExchangeNTSecurityDescriptor

DAV property name: <http://schemas.microsoft.com/exchange/ntsecuritydescriptor>

Data type: PtypBinary

Gets or sets the calculated 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. Clients MUST NOT manipulate the security descriptor directly.

For more details about [PidTagExchangeNTSecurityDescriptor](#), see [\[MS-OXPROPS\]](#) section 2.766.

2.2.8.9 PidTagFlatUrlName

DAV property name: <http://schemas.microsoft.com/exchange/permanenturl>

Data type: PtypString

Gets 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.

For more details about [PidTagFlatUrlName](#), see [\[MS-OXPROPS\]](#) section 2.777.

2.2.8.10 PidTagMessageClass

DAV property name: <http://schemas.microsoft.com/exchange/outlookmessageclass>

Data type: PtypString

Gets or sets the type of Calendar object.

The [PidTagMessageClass](#) property is further specified in [\[MS-OXOCAL\]](#) section 2.2.2.1.

For more details about [PidTagMessageClass](#), see [\[MS-OXPROPS\]](#) section 2.889.

2.2.8.11 PidTagMid

DAV property name: <http://schemas.microsoft.com/exchange/mid>

Data type: PtypInteger64

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

The [PidTagMid](#) property is further specified in [\[MS-OXCFXICS\]](#) section 2.2.1.2.1.

For more details about [PidTagMid](#), see [\[MS-OXPROPS\]](#) section 2.903.

2.2.8.12 PidTagSensitivity

DAV property name: <http://schemas.microsoft.com/exchange/sensitivity>

Data type: PtypInteger32

Gets or sets message and appointment sensitivity. The following table lists valid values:

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

For more details about [PidTagSensitivity](#), see [\[MS-OXPROPS\]](#) section 2.1127 and [\[MS-OXCMSG\]](#) 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.

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.

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.

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.

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 first retrieves the item using **GET** to retrieve the item stream, or **PROPFIND** or **SEARCH** to retrieve a list of specific properties.

The client then submits the changed properties of the appointment using **PUT** to set the entire item stream, or **PROPPATCH** set a list of specific properties.

3.1.4.4 Sending Meeting Requests

Clients use the **POST** or **PUT** method to create new meeting requests. The value of the **DAV:contentclass** property, as specified in section [2.2.1.1](#), MUST be set to "urn:content-classes:calendarmessage" for the meeting request to appear in both the recipient's **Inbox folder** and Calendar folder. If **DAV:contentclass** is set to "urn:content-classes:appointment" then the meeting request only appears in the recipient's Inbox folder, and not the recipient's Calendar folder as an appointment.

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

To determine whether an item is an appointment, check the **DAV:contentclass** property, as specified in section [2.2.1.1](#). To determine whether an appointment is a recurring master or a recurrence exception, check the **urn:schemas:calendar:instancetype** property, as specified in section [2.2.2.18](#). To determine what recurring master an exception is related to, SEARCH for all items that have the same **urn:schemas:calendar:uid** as the instance but have a **urn:schemas:calendar:instancetype** of 1.

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.

The server SHOULD perform recurrence expansion automatically when any request includes the recurrence begin date and end date 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 [\[RFC2518\]](#). These methods SHOULD be processed as specified in [\[RFC2518\]](#), except for any exceptions specified in this section.

3.1.5.1 GET Method

Use the **GET** method, as specified in [\[RFC2518\]](#) section 8.4, 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 [\[RFC2445\]](#).

3.1.5.2 POST Method

Use the **POST** method, as specified in [\[RFC2068\]](#) 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 [\[RFC2518\]](#) section 8.1, 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 [\[RFC2518\]](#) section 8.2, 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 [\[RFC2518\]](#) section 8.7, 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 [\[RFC2518\]](#) section 8.7.2, 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:bustatus>BUSY</c:bustatus>
      <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>040000008200E00074C5B7101A82E008000000090556E824E1AC9010000000000000
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">CAAEAAAAAAAAABAC+MMAAAAEwAAAAAAAAFAAAAAIAHAABAAAAARAUAL8PHwABAQAAAAABQcAAAA
BBQAAAAABRUAAAD010ajmNmy/EP4pXBAAAAQUAAAAAAUVAAAA9JdKGo5jZsvxD6+KQAQIAAA==</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>AQQAAAABLAQDAAAAAAAAAAAAAAAA</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:bustatus>BUSY</d:bustatus>
    <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>040000008200E00074C5B7101A82E008000000F0F4EF794E1AC901000000000000
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">CAEEAAAAABAC+MMAAAAEwAAAAAAAFAAAAAIAHAABAAAAARAUAL8PHwABAQAAAAABQCAAAA
BBQAAAAAABRUAAD010oajmNmy/EP4pXBAAAQUAAAAAAUVAAAA9JdKGo5jZsvxD6+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>AQQAAAABLAQCAAAAAAAAAAAAAAAA</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:bustatus>BUSY</d:bustatus>
<f:permanenturl>https://SERVER01/exchange/local/-FlatUrlSpace-
/1c5a707ee8157a47bfce2b746a3dba25-12c2720/878040245f8fd545a99a34a3d65eae4b-
12c0401</f:permanenturl>
<a:getcontenttype>message/rfc822</a:getcontenttype>
<a:id>AQEAAAABLCCgBAAAAEsBAEAAAA</a:id>
<f:mid b:dt="i8">73231876751360004</f:mid>
<d:uid>040000008200E00074C5B7101A82E00800000000C0533E754E1AC9010000000000000
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">CAAEAAAAAAAAABAC+MMAAAAEwAAAAAAAAAFAAAAIAHAABAAAAARAUAL8PHwABAQAAAAABQcAAAA
BBQAAAAAABRUAAAD010ajmNmy/EP4pXBAAAAQUAAAAAAUVAAAA9JdKGo5JzsvxD6+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>AQQAAAABLAQBAAAAAAAAAAAAAAAA</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
7bfce2b746a3dba25000012c30a5</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:040000008200E00074C5B7101A82E0080000000090556E824E1AC901000000000000000
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:bustatus>FREE</c:bustatus>
    </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:href>
  </a:response>
  <a:propstat>
    <a:status>HTTP/1.1 200 OK</a:status>
```

```
<a:prop>
  <b:busystatus />
</a:prop>
</a:propstat>
</a:response>
</a:multistatus>
```

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. For more information about ms-Exch-FB-URL, see [\[MSDN-EXCHFBURL\]](#).

[<2> Section 2.2.2.36:](#) Exchange 2003 and Exchange 2007 do not support RDATE.

[<3> Section 2.2.7.19:](#) This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

[<4> Section 2.2.7.33:](#) This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

[<5> Section 2.2.7.45:](#) This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

[<6> Section 2.2.7.63:](#) This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

[<7> Section 2.2.7.64:](#) This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

[<8> Section 2.2.7.66:](#) This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

[<9> Section 2.2.7.67:](#) This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

<10> [Section 2.2.7.71](#): This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

<11> [Section 2.2.7.73](#): This property is not used by Microsoft Office Outlook 2003, Microsoft Office Outlook 2007, Microsoft Exchange Server 2003, or Microsoft Exchange Server 2007. It is included for backward compatibility only.

7 Change Tracking

This section identifies changes made to [MS-XWDCAL] protocol documentation between February 2010 and May 2010 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 |
|--|--|-----------------------|--|
| 1.1 Glossary | 54497 Added "optional attendee", "orphan instance", "signal time", and "unsendable attendee" to the list of terms defined in [MS-OXGLOS]. | N | Content update. |
| 1.3 Overview | Updated the section title. | N | Content updated for template compliance. |
| 3.1.1 Abstract Data Model | 49923 Moved the content regarding determining appointment information and client and server actions to section 3.1.4.6. | N | Content removed. |
| 3.1.4.6 Recurring Appointments | 49923 Moved the content regarding determining appointment information and server and client actions from section 3.1.1 to this section. | N | Content update. |

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