July 2004 CalConnect Interoperability Test Results Spreadsheet

Published Administrative

Warning for drafts
This document is not a CalConnect Standard. It is distributed for review and comment, and is subject to change without notice and may not be referred to as a Standard. Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.
Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

The Calendaring and Scheduling Consortium, Inc. 2004

:2004

© 2004 The Calendaring and Scheduling Consortium, Inc.

The Calendaring and Scheduling Consortium, Inc.

4390 Chaffin Lane
McKinleyville
California 95519
United States of America

copyright@calconnect.org
www.calconnect.org

Contents

Foreword

This document incorporates by reference the CalConnect Intellectual Property Rights, Appropriate Usage, Trademarks and Disclaimer of Warranty for External (Public) Documents as located at

http://www.calconnect.org/documents/disclaimerpublic.pdf.

July 2004 CalConnect Interoperability Test Results Spreadsheet

1. Spreadsheet

RFC 2445 Feature Set	Requirement	Internet Calendaring and Scheduling Core Object Specification Condition	V1	V2
2.3 International Considerations	MUST	If a non-US-ASCII compatible character set is used, appropriate code-point from that character set MUST be chosen instead	Y	Y
4.1 Content Lines	SHOULD NOT	Lines of text SHOULD NOT be longer than 75 octets, excluding the line break	Y	Y
4.1 Content Lines	SHOULD	Long content lines SHOULD be split into a multiple line representations using a line "folding" technique	Y	Y
4.1.1 List and Field Separators	MUST	Values in a list of values MUST be separated by a COMMA character (US-ASCII decimal 44).	N	N
4.1.1 List and Field Separators	MUST	Structured property values MUST have their value parts separated by a SEMICOLON character (US-ASCII decimal 59)	N	N
4.1.1 List and Field Separators	MUST	Each property parameter in a list of property parameters MUST be separated by a SEMICOLON character (US-ASCII decimal 59).	N	N
4.1.1 List and Field Separators	MUST	Property parameters with values containing a COLON, a SEMICOLON or a COMMA character MUST be placed in quoted text	N	N
4.1.3 Binary Content	SHOULD	Binary content information in an iCalendar object SHOULD be referenced using a URI within a property value	Y	N
4.1.3 Binary Content	MUST	Binary content information placed external to the iCalendar object MUST be referenced by a uniform resource identifier (URI)	Y	N
4.2 Property Parameters	MUST	Property parameter values that contain the COLON (US-ASCII decimal 58), SEMICOLON (US-ASCII decimal 59) or COMMA (US-ASCII decimal 44) character separators MUST be specified as quoted-string text value	Y	Y
4.2 Property Parameters	MUST NOT	Property parameter values MUST NOT contain the DOUBLE-QUOTE (US-ASCII decimal 22) character.	Y	Y?
4.2.1 Alternate Text Representation	MUST	A property specifying alternate text representation parameter MUST also include a value that reflects the default representation of the text value	Y	N
4.2.1 Alternate Text Representation	MUST	The individual URI parameter values MUST each be specified in a quoted-string	Y	N
4.2.4 Delegators	MUST	The value of the DELEGATED-FROM parameter MUST be a MAILTO URI as defined in [IETF RFC 1738](#)	Y	N
4.2.4 Delegators	MUST	The individual calendar address parameter values MUST each be specified in a quoted-string.	Y	N
4.2.5 Delegatees	MUST	The value of the DELEGATED-TO parameter MUST be a MAILTO URI as defined in [IETF RFC 1738](#).	Y	N
4.2.5 Delegatees	MUST	The individual calendar address parameter values MUST each be specified in a quoted-string.	Y	N
4.2.6 Directory Entry Reference	MUST	The individual URI parameter values of DIR= MUST each be specified in a quoted-string.	?	N
4.2.7 Inline Encoding	MUST	If the value type parameter is ";VALUE=BINARY", then the inline encoding parameter MUST be specified with the value ";ENCODING=BASE64"	Y	N
4.2.8 Format Type	MUST	The parameter value of FMTTYPE=MUST be the TEXT for either an IANA registered content type or a non-standard content type	Y	N

RFC 2445   **Internet Calendaring and Scheduling Core Object Specification**

Feature Set	Requirement	Condition	V1	V2
4.2.11 Group or List Membership	MUST	The individual calendar address parameter values MUST each be specified in a quoted-string.	N?	N
4.2.12 Participation Status	MUST	The values to PARTSTAT=MUST match one of the values allowed for the given calendar component.	Y	Y
4.2.18 Sent By	MUST	The parameter value of SENT-BY MUST be a MAILTO URI as defined in [IETF RFC 1738](#).	Y	N
4.2.18 Sent By	MUST	The individual calendar address parameter values MUST each be specified in a quoted-string.	Y	N
4.2.19 Time Zone Identifier	MUST	The parameter MUST be specified on the "DTSTART", "DTEND", "DUE", "EXDATE" and "RDATE" properties when either a DATE-TIME or TIME value type is specified and when the value is not either a UTC or a "floating" time	Y	Y
4.2.19 Time Zone Identifier	MUST	An individual "VTIMEZONE" calendar component MUST be specified for each unique "TZID" parameter value specified in the iCalendar object	Y	Y
4.2.19 Time Zone Identifier	MUST NOT	The TZID property parameter MUST NOT be applied to DATE-TIME or TIME properties whose time values are specified in UTC.	Y	Y
4.2.20 Value Data Types	MUST	The property values MUST be of a single value type.	Y	Y
4.2.20 Value Data Types	MUST	If the property's value is the default value type, then this parameter need not be specified. However, if the property's default value type is overridden by some other allowable value type, then this parameter MUST be specified	Y	Y
4.3.1 Binary	MUST	Property values with this value type MUST also include the inline encoding parameter sequence of ";ENCODING= BASE64".	Y	N
4.3.3 Calendar User Address	MUST	When used to address an Internet email transport address for a calendar user, the value MUST be a MAILTO URI, as defined by [IETF RFC 1738](#)	Y	Y
4.3.5 Date-Time	MUST NOT	The form of date and time with UTC offset MUST NOT be used.	Y	Y
4.3.5 Date-Time	SHOULD	The recipient of an iCalendar object with a property value consisting of a local time, without any relative time zone information, SHOULD interpret the value as being fixed to whatever time zone the ATTENDEE is in at any given moment	Y	Y
4.3.5 Date-Time	SHOULD	Floating time SHOULD only be used where that is the reasonable behavior	Y	Y
4.3.5 Date-Time	MUST	In most cases, a fixed time is desired. To properly communicate a fixed time in a property value, either UTC time or local time with time zone reference MUST be specified	Y	Y
4.3.5 Date-Time	MUST NOT	The TZID property parameter MUST NOT be applied to DATE-TIME properties whose time values are specified in UTC	Y	Y
4.3.5 Date-Time	MUST ONLY	A time value MUST ONLY specify 60 seconds when specifying the periodic "leap second" in the time value	?	Y
4.3.9 Period of Time	MUST	The start of the period MUST be before the end of the period.	?	?
4.3.10 Recurrence Rule	MUST	Individual rule parts MUST only be specified once	Y	Y
4.3.10 Recurrence Rule	MUST	The FREQ rule part identifies the type of recurrence rule. This rule part MUST be specified in the recurrence rule	Y	Y
4.3.10 Recurrence Rule	MUST	If UNTIL is specified as a date-time value, then it MUST be specified in an UTC time format.	Y	Y

RFC 2445 Feature Set	Requirement	Internet Calendaring and Scheduling Core Object Specification Condition	V1	V2
4.3.10 Recurrence Rule	MUST	BYSETPOS MUST only be used in conjunction with another BYxxx rule part	Y	Y?
4.3.11 Text	MUST	An intentional formatted text line break MUST only be included in a "TEXT" property value by representing the line break with the character sequence of BACKSLASH (US-ASCII decimal 92), followed by a LATIN SMALL LETTER N (US-ASCII decimal 110) or a LATIN CAPITAL LETTER N (US-ASCII decimal 78), that is "\n" or "\N"	Y	Y
4.3.12 Time	MUST NOT	The form of time with UTC offset MUST NOT be used.	Y	Y
4.3.12 Time	SHOULD	The recipient of an iCalendar object with a property value consisting of a local time, without any relative time zone information, SHOULD interpret the value as being fixed to whatever time zone the ATTENDEE is in at any given moment	Y	Y
4.3.12 Time	SHOULD	Floating time SHOULD only be used where that is reasonable behavior	Y	Y
4.3.12 Time	MUST	To properly communicate a fixed time in a property value, either UTC time or local time with time zone reference MUST be specified.	Y	Y
4.3.12 Time	MUST NOT	The TZID property parameter MUST NOT be applied to TIME properties whose time values are specified in UTC	Y	Y
4.3.14 UTC Offset	MUST	The PLUS SIGN character MUST be specified for positive UTC offsets (i.e., ahead of UTC).	Y	Y
4.4 iCalendar Object	MUST	The first line and last line of the iCalendar object MUST contain a pair of iCalendar object delimiter strings	Y	Y
4.6 Calendar Components	MUST	An iCalendar object MUST include the "PRODID" and "VERSION" calendar properties.	Y	Y
4.6 Calendar Components	MUST NOT	'calscale' and 'method' are optional, but MUST NOT occur more than once	Y	Y
4.6 Calendar Components	MUST	An iCalendar object MUST include at least one calendar component.	Y	Y?
4.6.1 Event Component	MUST NOT	the following are optional, but MUST NOT occur more than once: class / created / description / dtstart / geo / last-mod / location / organizer / priority / dtstamp / seq / status / summary / transp / uid / url / recurid	Y	Y
4.6.1 Event Component	MUST NOT	either 'dtend' or 'duration' may appear in a 'eventprop', but 'dtend' and 'duration' MUST NOT occur in the same 'eventprop'	Y	Y
4.6.1 Event Component	MAY	the following are optional, and MAY occur more than once: attach / attendee / categories / comment / contact / exdate / exrule / rstatus / related / resources / rdate / rrule / x-pro	Y	Y
4.6.2 To-do Component	MUST NOT	the following are optional, but MUST NOT occur more than once: class / completed / created / description / dtstamp / dtstart / geo / last-mod / location / organizer / percent / priority / recurid / seq / status / summary / uid / ur	Y	Y
4.6.2 To-do Component	MUST NOT	either 'due' or 'duration' may appear in a 'todoprop', but 'due' and 'duration' MUST NOT occur in the same 'todoprop'	Y	Y
4.6.2 To-do Component	MAY	the following are optional, and MAY occur more than once: attach / attendee / categories / comment / contact / exdate / exrule / rstatus / related / resources / rdate / rrule / x-pro	Y	Y
4.6.3 Journal Component	MUST NOT	the following are optional, but MUST NOT occur more than once: class / created / description / dtstart	N	N

RFC 2445 Feature Set	Requirement	Internet Calendaring and Scheduling Core Object Specification Condition	V1	V2
		/ dtstamp / last-mod / organizer / recurid / seq / status / summary / uid / url		
4.6.3 Journal Component	MAY	the following are optional, and MAY occur more than once: attach / attendee / categories / comment / contact / exdate / exrule / related / rdate / rrule / rstatus / x-pro	N	N
4.6.3 Journal Component	MUST NOT	The "VJOURNAL" calendar component cannot be nested within another calendar component	N	N
4.6.4 Free/Busy Component	MUST NOT	the following are optional, but MUST NOT occur more than once: contact / dtstart / dtend / duration / dtstamp / organizer / uid / url	N	Y
4.6.4 Free/Busy Component	MAY	the following are optional, and MAY occur more than once: attendee / comment / freebusy / rstatus / x-prop	N	Y
4.6.4 Free/Busy Component	MUST NOT	The recurrence properties ("RRULE", "EXRULE", "RDATE", "EXDATE") are not permitted within a "VFREEBUSY" calendar component. Any recurring events are resolved into their individual busy time periods using the "FREEBUSY" property	N	Y
4.6.5 Time Zone Component	MUST NOT	'tzid' is required, but MUST NOT occur more than once	Y	Y
4.6.5 Time Zone Component	MUST NOT	'last-mod' and 'tzurl' are optional, but MUST NOT occur more than once	Y	Y
4.6.5 Time Zone Component	MUST	one of 'standardc' or 'daylightc' MUST occur and each MAY occur more than once	Y	Y
4.6.5 Time Zone Component	MAY	the following is optional, and MAY occur more than once: x-prop	Y	Y
4.6.5 Time Zone Component	MAY	Multiple "VTIMEZONE" calendar components can exist in an iCalendar object.	Y	Y
4.6.5 Time Zone Component	MUST	If multiple "VTIMEZONE" calendar components exist in an iCalendar object, each "VTIMEZONE" MUST represent a unique time zone definition	Y	Y
4.6.5 Time Zone Component	MUST	The "VTIMEZONE" calendar component MUST be present if the iCalendar object contains an RRULE that generates dates on both sides of a time zone shift	Y	Y
4.6.5 Time Zone Component	MAY	A "VTIMEZONE" calendar component can be present if the iCalendar object does not contain such an RRULE that generates dates on both sides of a time zone shift.	Y	Y
4.6.5 Time Zone Component	MUST	If a RRULE that generates dates on both sides of a time zone shift is present, there MUST be valid time zone information for all recurrence instances	Y	Y
4.6.5 Time Zone Component	MUST	The "VTIMEZONE" calendar component MUST include the "TZID" property and at least one definition of a standard or daylight component.	Y	Y
4.6.5 Time Zone Component	MUST	The standard or daylight component MUST include the "DTSTART", "TZOFFSETFROM" and "TZOFFSETTO" properties.	Y	Y
4.6.5 Time Zone Component	MUST	An individual "VTIMEZONE" calendar component MUST be specified for each unique "TZID" parameter value specified in the iCalendar object.	Y	Y
4.6.5 Time Zone Component	SHOULD	TZURL SHOULD refer to a resource that is accessible by anyone who might need to interpret the object.	N	N
4.6.5 Time Zone Component	SHOULD NOT	TZURL SHOULD NOT normally be a file: URL or other URL that is not widely-accessible.	N	N
4.6.6 Alarm Component	REQUIRED	'action' and 'trigger' are both REQUIRED, but MUST NOT occur more than once	N	N

RFC 2445 **Internet Calendaring and Scheduling Core Object Specification**

Feature Set	Requirement	Condition	V1	V2
4.6.6 Alarm Component	MUST NOT	'duration' and 'repeat' are both optional, and MUST NOT occur more than once each, but if one occurs, so MUST the other	N	N
4.6.6 Alarm Component	MUST NOT	the following is optional, but MUST NOT occur more than once: attach	N	N
4.6.6 Alarm Component	MAY	the following is optional, and MAY occur more than once: x-prop	N	N
4.6.6 Alarm Component	REQUIRED	the following are all REQUIRED, but MUST NOT occur more than once: action / description / trigger	N	N
4.6.6 Alarm Component	MUST NOT	'duration' and 'repeat' are both optional, and MUST NOT occur more than once each, but if one occurs, so MUST the other	N	N
4.6.6 Alarm Component	MAY	the following is optional, and MAY occur more than once: x-prop	N	N
4.6.6 Alarm Component	REQUIRED	the following are all REQUIRED, but MUST NOT occur more than once: action / description / trigger / summary	N	N
4.6.6 Alarm Component	REQUIRED	the following is REQUIRED, and MAY occur more than once: attendee	N	N
4.6.6 Alarm Component	MUST NOT	'duration' and 'repeat' are both optional, and MUST NOT occur more than once each, but if one occurs, so MUST the other	N	N
4.6.6 Alarm Component	MAY	the following are optional, and MAY occur more than once: attach / x-prop	N	N
4.6.6 Alarm Component	REQUIRED	the following are all REQUIRED, but MUST NOT occur more than once: action / attach / trigger	N	N
4.6.6 Alarm Component	MUST NOT	'duration' and 'repeat' are both optional, and MUST NOT occur more than once each, but if one occurs, so MUST the other	N	N
4.6.6 Alarm Component	MUST NOT	'description' is optional, and MUST NOT occur more than once	N	N
4.6.6 Alarm Component	MAY	the following is optional, and MAY occur more than once: x-prop	N	N
4.6.6 Alarm Component	MUST	The "VALARM" calendar component MUST include the "ACTION" and "TRIGGER" properties.	N	N
4.6.6 Alarm Component	MUST	When the action is "AUDIO", the alarm can also include one and only one "ATTACH" property, which MUST point to a sound resource, which is rendered when the alarm is triggered.	N	N
4.6.6 Alarm Component	MUST	When the action is "DISPLAY", the alarm MUST also include a "DESCRIPTION" property, which contains the text to be displayed when the alarm is triggered.	N	N
4.6.6 Alarm Component	MUST	When the action is "EMAIL", the alarm MUST include a "DESCRIPTION" property, which contains the text to be used as the message body, a "SUMMARY" property, which contains the text to be used as the message subject, and one or more "ATTENDEE" properties, which contain the email address of attendees to receive the message.	N	N
4.6.6 Alarm Component	MAY	It can also include one or more "ATTACH" properties, which are intended to be sent as message attachments.	N	N
4.6.6 Alarm Component	MUST	When the action is "PROCEDURE", the alarm MUST include one and only one "ATTACH" property, which MUST point to a procedure resource, which is invoked when the alarm is triggered.	N	N
4.6.6 Alarm Component	MUST	The "VALARM" calendar component MUST only appear within either a "VEVENT" or "VTODO" calendar component.	N	N
4.6.6 Alarm Component	MUST NOT	"VALARM" calendar components cannot be nested.	N	N

RFC 2445 Feature Set	Internet Calendaring and Scheduling Core Object Specification Requirement	Condition	V1	V2
4.6.6 Alarm Component	MUST	In an alarm set to trigger on the "START" of an event or to-do, the "DTSTART" property MUST be present in the associated event or to-do.	N	Y
4.6.6 Alarm Component	MUST	In an alarm in a "VEVENT" calendar component set to trigger on the "END" of the event, either the "DTEND" property MUST be present, or the "DTSTART" and "DURATION" properties MUST both be present.	N	
4.6.6 Alarm Component	MUST	In an alarm in a "VTODO" calendar component set to trigger on the "END" of the to-do, either the "DUE" property MUST be present, or the "DTSTART" and "DURATION" properties MUST both be present.	N	Y
4.6.6 Alarm Component	MUST	A definition of an alarm with a repeating trigger MUST include both the "DURATION" and "REPEAT" properties.	N	
4.6.6 Alarm Component	MUST	Both "DURATION" and "REPEAT" properties MUST be present in order to specify a repeating alarm. If one of these two properties is absent, then the alarm will not repeat beyond the initial trigger.	N	Y
4.6.6 Alarm Component	MUST	The "ACTION" property MUST specify one and only one of "AUDIO", "DISPLAY", "PROCEDURE", "EMAIL".	N	Y
4.6.6 Alarm Component	MUST	In an AUDIO alarm, if the optional "ATTACH" property is included, it MUST specify an audio sound resource.	N	Y
4.6.6 Alarm Component	MUST	For an "EMAIL" alarm, the "DESCRIPTION" property of the "VALARM" calendar component MUST be used as the body text of the message, and the "SUMMARY" property MUST be used as the subject text.	N	Y
4.6.6 Alarm Component	SHOULD	Any "ATTACH" properties in the "VALARM" calendar component SHOULD be sent as attachments to the message.	N	Y
4.6.6 Alarm Component	MUST	In a PROCEDURE alarm, the "ATTACH" property in the "VALARM" calendar component MUST specify a procedure or program that is intended to be invoked as the alarm effect.	N	Y
4.6.6 Alarm Component	SHOULD	While a very useful alarm capability, the PROCEDURE type of alarm SHOULD be treated by the "Calendar User Agent" as a potential security risk.	N	Y
4.7 Calendar Properties	SHOULD	Calendar Properties SHOULD be specified after the "BEGIN:VCALENDAR" property and prior to any calendar component.	Y	Y
4.7.2 Method	MUST	When used in a MIME message entity, the value of this property MUST be the same as the Content-Type "method" parameter value. This property can only appear once within the iCalendar object.	Y	Y
4.7.2 Method	MUST	If either the "METHOD" property or the Content-Type "method" parameter is specified, then the other MUST also be specified.	Y	Y
4.7.2 Method	MUST NOT	If this property is not present in the iCalendar object, then a scheduling transaction MUST NOT be assumed.	Y	Y
4.7.3 Product Identifier	MUST	The property MUST be specified once in an iCalendar object.	Y	Y
4.7.3 Product Identifier	SHOULD	The vendor of the implementation SHOULD assure that this is a globally unique identifier; using some technique such as an FPI value, as defined in ISO 9070.	Y	Y
4.7.3 Product Identifier	SHOULD NOT	This property SHOULD not be used to alter the interpretation of an iCalendar object beyond the semantics specified in this memo.	Y	Y
4.7.4 Version	MUST	This property MUST be specified by an iCalendar object, but MUST only be specified once.	Y	Y

RFC 2445 **Internet Calendaring and Scheduling Core Object Specification**

Feature Set	Requirement	Condition	V1	V2
4.8.1.1 Attachment	MUST	the following is optional, but MUST NOT occur more than once: fmttypeparam	Y	N
4.8.1.1 Attachment	MAY	the following is optional, and MAY occur more than once: xparam	Y	N
4.8.1.2 Categories	MUST NOT	the following is optional, but MUST NOT occur more than once: languageparam	N	Y
4.8.1.2 Categories	MAY	the following is optional, and MAY occur more than once: xparam	N	Y
4.8.1.4 Comment	MUST NOT	the following are optional, but MUST NOT occur more than once: altrepparam, languageparam	Y	Y
4.8.1.4 Comment	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.1.5 Description	MUST NOT	the following are optional, but MUST NOT occur more than once: altrepparam, languageparam	Y	Y
4.8.1.5 Description	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.1.6 Geographic Position	MUST	The value MUST be two SEMICOLON separated FLOAT values.	Y	Y
4.8.1.7 Location	MUST	the following are optional, but MUST NOT occur more than once: altrepparam, languageparam	Y	Y
4.8.1.7 Location	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.1.10 Resources	MUST NOT	the following are optional, but MUST NOT occur more than once: altrepparam, languageparam	Y	Y
4.8.1.10 Resources	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.1.12 Summary	MUST NOT	the following are optional, but MUST NOT occur more than once: altrepparam, languageparam	Y	Y
4.8.1.12 Summary	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.2.1 Date/ Time Completed	MUST	The date and time MUST be in a UTC format.	Y	Y
4.8.2.2 Date/ Time End	MUST NOT	the following are optional, but MUST NOT occur more than once: "VALUE" "=" ("DATETIME" / "DATE")), tzidparam	Y	Y
4.8.2.2 Date/ Time End	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.2.3 Date/ Time Due	MUST NOT	the following are optional, but MUST NOT occur more than once: "VALUE" "=" ("DATETIME" / "DATE")), tzidparam	Y	N
4.8.2.3 Date/ Time Due	MAY	the following is optional, and MAY occur more than once: xparam	Y	N
4.8.2.4 Date/ Time Start	MUST	The time value MUST be one of the forms defined for the DATE-TIME value type.	Y	Y
4.8.2.4 Date/ Time Start	MUST NOT	the following are optional, but MUST NOT occur more than once: "VALUE" "=" ("DATETIME" / "DATE")), tzidparam	Y	Y
4.8.2.4 Date/ Time Start	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.2.6 Free/Busy Time	MUST	The date and time values MUST be in an UTC time format.	N	Y?
4.8.2.6 Free/Busy Time	MUST	the following is optional, but MUST NOT occur more than once: fbtypeparam	N	Y
4.8.2.6 Free/Busy Time	MAY	the following is optional, and MAY occur more than once: xparam	N	Y
4.8.2.7 Time Transparency	SHOULD	Events that consume actual time for the individual or resource associated with the calendar SHOULD be recorded as OPAQUE, allowing them to be detected by free-busy time searches.	Y	Y

RFC 2445 Feature Set	Requirement	Internet Calendaring and Scheduling Core Object Specification Condition	V1	V2
4.8.2.7 Time Transparency	SHOULD	Other events, which do not take up the individual's (or resource's) time SHOULD be recorded as TRANSPARENT, making them invisible to free-busy time searches.	Y	Y
4.8.3.1 Time Zone Identifier	MUST	This property MUST be specified in a "VTIMEZONE" calendar component.	Y	Y
4.8.3.2 Time Zone Name	MUST NOT	the following is optional, but MUST NOT occur more than once: languageparam	Y	Y
4.8.3.2 Time Zone Name	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.3.3 Time Zone Offset From	MUST	This property MUST be specified in a "VTIMEZONE" calendar component.	Y	Y
4.8.3.4 Time Zone Offset To	MUST	This property MUST be specified in a "VTIMEZONE" calendar component.	Y	Y
4.8.4.1 Attendee	MUST	This property MUST be specified in an iCalendar object that specifies a group scheduled calendar entity.	Y	Y
4.8.4.1 Attendee	MUST NOT	This property MUST NOT be specified in an iCalendar object when publishing the calendar information.	Y	N
4.8.4.1 Attendee	MUST	The property MUST only be specified within calendar components to specify participants, non-participants and the chair of a group scheduled calendar entity.	Y	Y
4.8.4.1 Attendee	MUST NOT	The ROLE, PARSTAT, RSVP, CUTYPE, etc. MUST NOT be specified in an "ATTENDEE" property in a "VFREEBUSY" or "VALARM" calendar component.	Y	Y
4.8.4.1 Attendee	MUST	A recipient delegated a request MUST inherit the RSVP and ROLE values from the attendee that delegated the request to them.	Y	N
4.8.4.1 Attendee	MUST NOT	the following are optional, but MUST NOT occur more than once: cutypeparam, memberparam, roleparam, partstatparam, rsvpparam, deltoparam, delfromparam, sentbyparam, cnparam, dirparam, languageparam	Y	Y
4.8.4.1 Attendee	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.4.2 Contact	MUST	the following are optional, but MUST NOT occur more than once: altrepparam, languageparam	Y	Y
4.8.4.2 Contact	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.4.3 Organizer	MUST	This property MUST be specified in an iCalendar object that specifies a group scheduled calendar entity.	Y	Y
4.8.4.3 Organizer	MUST	This property MUST be specified in an iCalendar object that specifies the publication of a calendar user's busy time.	N	Y
4.8.4.3 Organizer	MUST NOT	This property MUST NOT be specified in an iCalendar object that specifies only a time zone definition or that defines calendar entities that are not group scheduled entities, but are entities only on a single user's calendar.	N	N
4.8.4.3 Organizer	MUST NOT	the following are optional, but MUST NOT occur more than once: cnparam, dirparam, sentbyparam, languageparam	Y	Y
4.8.4.3 Organizer	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.4.4 Recurrence ID	MUST	If the value of the "DTSTART" property is a DATE type value, then the value MUST be the calendar date for the recurrence instance.	Y	Y
4.8.4.4 Recurrence ID	MUST NOT	the following are optional, but MUST NOT occur more than once: "VALUE" "=" ("DATETIME" / "DATE"), tzidparam, rangeparam	Y	Y
4.8.4.4 Recurrence ID	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y

RFC 2445 Feature Set	Internet Calendaring and Scheduling Core Object Specification		V1	V2
	Requirement	Condition		
4.8.4.5 Related To	MUST NOT	the following is optional, but MUST NOT occur more than once: reltypeparam	N	N
4.8.4.5 Related To	MAY	the following is optional, and MAY occur more than once: xparam	N	N
4.8.4.7 Unique Identifier	MUST	The property MUST be specified in the "VEVENT", "VTODO", "VJOURNAL" or "VFREEBUSY" calendar components.	Y	Y
4.8.4.7 Unique Identifier	MUST	The UID itself MUST be a globally unique identifier.	Y	Y
4.8.4.7 Unique Identifier	MUST	The generator of the identifier MUST guarantee that the identifier is unique.	Y	Y
4.8.4.7 Unique Identifier	MUST	Implementations MUST be able to receive and persist values of at least 255 characters for this property.	Y	Y
4.8.5.1 Exception Date/Times	MUST	The "EXDATE" property can be used to exclude the value specified in "DTSTART". However, in such cases the original "DTSTART" date MUST still be maintained by the calendaring and scheduling system because the original "DTSTART" value has inherent usage dependencies by other properties such as the "RECURRENCE-ID".	Y	Y
4.8.5.1 Exception Date/Times	MUST NOT	the following are optional, but MUST NOT occur more than once: "VALUE" "=" ("DATETIME" / "DATE"), tzidparam	Y	Y
4.8.5.1 Exception Date/Times	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.5.3 Recurrence Date/Times	MUST NOT	the following are optional, but MUST NOT occur more than once: "VALUE" "=" ("DATETIME" / "DATE" / "PERIOD"), tzidparam	Y	Y
4.8.5.3 Recurrence Date/Times	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
4.8.5.4 Recurrence Rule	MUST	Any duration associated with the iCalendar object applies to all members of the generated recurrence set. Any modified duration for specific recurrences MUST be explicitly specified using the "RDATE" property.	Y	Y
4.8.6.1 Action	MUST	This property MUST be specified once in a "VALARM" calendar component.	Y	Y
4.8.6.3 Trigger	MUST	The value type can be set to a DATE-TIME value type, in which case the value MUST specify a UTC formatted DATE-TIME value.	N	
4.8.6.3 Trigger	MUST	The trigger relationship property parameter MUST only be specified when the value type is DURATION.	N	Y
4.8.6.3 Trigger	MUST	This property MUST be specified in the "VALARM" calendar component.	N	Y
4.8.6.3 Trigger	MUST	If a value type of DATE-TIME is specified, then the property value MUST be specified in the UTC time format.	N	N
4.8.6.3 Trigger	MUST	If the trigger is set relative to START, then the "DTSTART" property MUST be present in the associated "VEVENT" or "VTODO" calendar component.	N	Y
4.8.6.3 Trigger	MUST	If an alarm is specified for an event with the trigger set relative to the END, then the "DTEND" property or the "DSTART" and "DURATION" properties MUST be present in the associated "VEVENT" calendar component.	N	N
4.8.6.3 Trigger	MUST	If the alarm is specified for a to-do with a trigger set relative to the END, then either the "DUE" property or the "DSTART" and "DURATION" properties MUST be present in the associated "VTODO" calendar component.	N	Y
4.8.6.3 Trigger	MUST NOT	the following are optional, but MUST NOT occur more than once: "VALUE" "=" "DURATION", trigrelparam	N	Y
4.8.6.3 Trigger	MAY	the following is optional, and MAY occur more than once: xparam	N	Y

RFC 2445 Feature Set	Requirement	Condition	V1	V2
RFC 2445	**Internet Calendaring and Scheduling Core Object Specification**			
4.8.6.3 Trigger	REQUIRED	the following is REQUIRED, but MUST NOT occur more than once: "VALUE" "=" "DATETIME"	N	?
4.8.7.2 Date/ Time Stamp	MUST	This property MUST be included in the "VEVENT", "VTODO", "VJOURNAL" or "VFREEBUSY" calendar components.	Y	Y
4.8.7.2 Date/ Time Stamp	MUST	The value MUST be specified in the UTC time format.	Y	Y
4.8.7.4 Sequence Number	MUST	When the "Organizer" makes changes to one of the following properties, the sequence number MUST be incremented: "DTSTART", "DTEND", "DUE", "RDATE", "RRULE", "EXDATE", "EXRULE", "STATUS"	Y	Y
4.8.7.4 Sequence Number	MUST	The "Organizer" CUA MUST increment the sequence number when ever it makes changes to properties in the calendar component that the "Organizer" deems will jeopardize the validity of the participation status of the "Attendees".	?	?
4.8.8.2 Request Status	MUST NOT	the following is optional, but MUST NOT occur more than once: languageparm	Y	Y
4.8.8.2 Request Status	MAY	the following is optional, and MAY occur more than once: xparam	Y	Y
6 Recommended Practices	MUST NOT	2. A calendar entry with a "DTSTART" property but no "DTEND" property does not take up any time. It is intended to represent an event that is associated with a given calendar date and time of day, such as an anniversary. Since the event does not take up any time, it MUST NOT be used to record busy time no matter what the value for the "TRANSP" property.	Y	Y
6 Recommended Practices	SHOULD	4. When the combination of the "RRULE" and "RDATE" properties on an iCalendar object produces multiple instances having the same start date/time, they should be collapsed to, and considered as, a single instance.	Y	Y

RFC 2446 Feature Set	Requirement	Condition	V1	V2
RFC 2446	**iCalendar Transport-Independent Interoperability Protocol**			
3.1 Common Component Restrictions	MUST	CALSCALE 0 or 1	N	N
3.1 Common Component Restrictions	MUST	PRODID MUST appear	Y	Y
3.1 Common Component Restrictions	MUST	VERSION MUST be 2.0	Y	Y
3.1 Common Component Restrictions	MUST	VTIMEZONE MUST contain specified required values	Y	Y
3.1 Common Component Restrictions	MUST	VALARM MUST contain specified required values	Y	N
3.2.1 VEVENT PUBLISH	MUST	MUST contain specified required values	N	Y
3.2.1 VEVENT PUBLISH	MUST	MUST contain "Organizer"	N	Y
3.2.1 VEVENT PUBLISH	MUST NOT	MUST NOT contain "Attendees"	N	Y
3.2.2 VEVENT REQUEST	MUST	MUST contain specified required values	Y	Y
3.2.2.1 Rescheduling an Event	MUST	MUST contain existing "UID" but incremented "SEQUENCE" or higher "DTSTAMP"	Y	Y

RFC 2446 **iCalendar Transport-Independent Interoperability Protocol**

Feature Set	Requirement	Condition	V1	V2
3.2.2.2 Updating or Reconfirmation of an Event	MUST	MUST contain existing "UID" and current "SEQUENCE"	Y	Y
3.2.2.3 Delegating an Event to another CU	MUST	"Delegator" MUST forward VEVENT REQUEST to "Delegate" showing the "Delegate" as an "Atendee"	Y	N
3.2.2.3 Delegating an Event to another CU	MUST	"Delegator" MUST send VEVENT REPLY to "Organizer" showing "Deletator's" "Atendee" parstat as "delegated" plus "delegated-to" value	Y	N
3.2.2.3 Delegating an Event to another CU	MUST	"Delegate" MUST send VEVENT REPLY to "Organizer" showing "delegated-from" value	Y	N
3.2.2.6 Forwarding to An Uninvited CU	MAY	If the "Organizer" decides not to add the uninvited CU no further action is required, however the "Organizer" MAY send the uninvited CU a "CANCEL" message.	N	N
3.2.2.6 Forwarding to An Uninvited CU	MUST NOT	When forwarding a "REQUEST" to another CU, the forwarding "Attendee" MUST NOT make changes to the VEVENT property set.	N	N
3.2.3 VEVENT REPLY	MUST NOT	The optional properties of the original VEVENT REQUEST MUST NOT be changed from those of the original request. If property changes are desired the COUNTER message must be used.	Y	Y?
3.2.4 VEVENT ADD	MUST	The "UID" MUST be that of an existing VEVENT.	Y	Y
3.2.4 VEVENT ADD	SHOULD	If the "UID" property value in the "ADD" is not found on the recipient's calendar, then the recipient SHOULD send a "REFRESH" to the "Organizer" in order to be updated with the latest version of the "VEVENT".	Y	Y?
3.2.4 VEVENT ADD	SHOULD	If an "Attendee" implementation does not support the "ADD" method it should respond with a "REQUEST-STATUS" value of 3.14 and ask for a "REFRESH".	Y	Y
3.2.4 VEVENT CANCEL	MUST	To cancel the complete range of recurring event, the "UID" property value for the event MUST be specified and a "RECURRENCE-ID" MUST NOT be specified in the "CANCEL" method.	N	Y
3.2.4 VEVENT CANCEL	MUST	In order to cancel an individual instance of the event, the "RECURRENCE-ID" property value for the event MUST be specified in the "CANCEL" method.	Y	Y
3.2.4 VEVENT CANCEL	MUST	Canceling multiple VEVENT instances MUST be done with either "RECURRENCE-ID" and "RANGE" OR multiple "RECURRENCE-ID" values.	Y	Y
3.2.4 VEVENT CANCEL	MUST	When a "VEVENT" is cancelled, the "SEQUENCE" property value MUST be incremented.	N?	Y
3.3 Methods For VFREEBUSY Components	MUST	This document only addresses the transfer of busy time information. Applications desiring free time information MUST infer this from available busy time information.	N	Y
3.3 Methods For VFREEBUSY Components	MAY	The busy time information within the iCalendar object MAY be grouped into more than one "VFREEBUSY" calendar component.	N	N
3.3 Methods For VFREEBUSY Components	MAY	The "FREEBUSY" property value MAY include a list of values, separated by the COMMA character ([US-ASCII] decimal 44).	N	N
3.3 Methods For VFREEBUSY Components	MAY	Alternately, multiple busy time periods MAY be specified with multiple instances of the "FREEBUSY" property.	N	N
3.3 Methods For VFREEBUSY Components	MUST	Both forms MUST be supported by implementations conforming to this document.	N	N

RFC 2446 Feature Set	iCalendar Transport-Independent Interoperability Protocol Requirement	Condition	V1	V2
3.3 Methods For VFREEBUSY Components	SHOULD NOT	Duplicate busy time periods SHOULD NOT be specified in an iCalendar object	N	Y
3.3 Methods For VFREEBUSY Components	MAY	However, two different busy time periods MAY overlap.	N	Y
3.3 Methods For VFREEBUSY Components	SHOULD	"FREEBUSY" properties should be sorted such that their values are in ascending order, based on the start time, and then the end time, with the earliest periods first.	N	Y
3.3.1 VFREEBUSY PUBLISH	MUST	The "ATTENDEE" property must be specified in the busy time information. The value is the CU address of the originator of the busy time information.	N	Y
3.3.2 VFREEBUSY `REQUEST	SHOULD	If the originator of the "REQUEST" method is not authorized to make a busy time request on the recipient's calendar system, then an exception message SHOULD be returned in a "REPLY" method, but no busy time data need be returned.	N	N
3.3.3 VFREEBUSY REPLY	MAY	The "REPLY" method may also be used to respond to an unsuccessful "REQUEST" method. Depending on the "REQUEST-STATUS" value, no busy time information may be returned.	N	N
3.4.1 VTODO PUBLISH	MUST	VTODO PUBLISH MUST have an "Organizer"	?	N
3.4.1 VTODO PUBLISH	MUST NOT	VTODO PUBLISH MUST NOT have "Attendees"	?	N
3.4.1 VTODO PUBLISH	MAY	The "Organizer" MAY subsequently update (with another "PUBLISH" method), add instances to (with an "ADD" method), or cancel (with a "CANCEL" method) a previously published "VTODO" calendar component.	?	N
3.4.2 VTODO REQUEST	MAY	VTODO REQUEST MAY be a new request or a rescheduling of a VTODO depending on the values of the "UID", "SEQUENCE", and "DTSTAMP" properties.	Y	N
3.4.2.3 REQUEST for Delegating a VTODO	MUST NOT	An "Attendee" of a "VTODO" calendar component MUST NOT delegate to the "Organizer" of the event.	Y	N
3.4.2.3 REQUEST for Delegating a VTODO	MUST	The "Delegator" of a "VTODO" calendar component MUST forward the existing "REQUEST" method for a "VTODO" calendar component to the "Delegate".	Y	N
3.4.2.3 REQUEST for Delegating a VTODO	MUST	The "VTODO" calendar component description MUST include the "Delegator's" up-to-date "VTODO" calendar component definition.	Y	N
3.4.2.3 REQUEST for Delegating a VTODO	MUST	The "REQUEST" method MUST also include an "ATTENDEE" property with the calendar address of the "Delegate".	Y	N
3.4.2.3 REQUEST for Delegating a VTODO	MUST	The "Delegator" MUST also send a "REPLY" method back to the "Organizer" with the "Delegator's" "Attendee" property "partstat" parameter value set to "DELEGATED".	Y	N
3.4.2.3 REQUEST for Delegating a VTODO	MUST	The "delegated-to" parameter MUST be included with the calendar address of the "Delegate".	Y	N
3.4.2.3 REQUEST for Delegating a VTODO	SHOULD	The "REPLY" method from the "Delegate" SHOULD include the "ATTENDEE" property with their calendar address and the "delegated-from" parameter with the value of the "Delegator's" calendar address.	Y	N
3.4.2.3 REQUEST for Delegating a VTODO	MUST	The delegation "REQUEST" method MUST assign a value for the "RSVP" property parameter associated with the "Delegator's" "Attendee" property to that of the "Delegate's" "ATTENDEE" property. For example if the	Y	N

RFC 2446 Feature Set	iCalendar Transport-Independent Interoperability Protocol Requirement	Condition	V1	V2
		"Delegator's" "ATTENDEE" property specifies "RSVP=TRUE", then the "Delegate's" "ATTENDEE" property MUST specify "RSVP=TRUE".		
3.4.2.4 REQUEST Forwarded To An Uninvited Calendar User	MAY	An "Attendee" assigned a "VTODO" calendar component may send the "VTODO" calendar component to another new CU, not previously associated with the "VTODO" calendar component.	N	N
3.4.2.4 REQUEST Forwarded To An Uninvited Calendar User	MAY	The new CU can send a "REPLY" to the "Organizer" of the "VTODO" calendar component.	N	N
3.4.2.4 REQUEST Forwarded To An Uninvited Calendar User	MAY	The "Organizer" MAY send the CU a "CANCEL" message to indicate that they will not be added to the to-do.	N	N
3.4.3 VTODO REPLY	MUST	When used to provide a delegation response, the "Delegator" MUST include the calendar address of the "Delegate" in the "delegated-to" parameter of the "Delegator's" "ATTENDEE" property.	Y	N
3.4.3 VTODO REPLY	MUST	The "Delegate" MUST include the calendar address of the "Delegator" on the "delegated-from" parameter of the "Delegate's" "ATTENDEE" property.	Y	N
3.4.3 VTODO REPLY	MAY	The "REPLY" method MAY also be used to respond to an unsuccessful "VTODO" calendar component "REQUEST" method.	Y	N
3.4.3 VTODO REPLY	MAY	The "Organizer" of a "VTODO" calendar component MAY receive a "REPLY" method from a "Calendar User" not in the original "REQUEST". This uninvited "Attendee" MAY be accepted, or the "Organizer" MAY cancel the "VTODO" calendar component for the uninvited "Attendee" by sending them a "CANCEL" method.	Y	N
3.4.4 VTODO ADD	SHOULD	If the "UID" property value in the "ADD" is not found on the recipient's calendar, then the recipient SHOULD send a "REFRESH" to the "Organizer" in order to be updated with the latest version of the "VTODO". If an "Attendee" implementation does not support the "ADD" method it should respond with a "REQUEST-STATUS" value of 5.3 and ask for a "REFRESH".	Y	N
3.4.5 VTODO CANCEL	MUST	To cancel the complete range of a recurring "VTODO" calendar component, the "UID" property value for the "VTODO" calendar component MUST be specified and a "RECURRENCE-ID" MUST NOT be specified in the "CANCEL" method.	Y	N
3.4.5 VTODO CANCEL	MUST	In order to cancel an individual instance of a recurring "VTODO" calendar component, the "RECURRENCE-ID" property value for the "VTODO" calendar component MUST be specified in the "CANCEL" method.	Y	N
3.4.5 VTODO CANCEL	MUST	When a "VTODO" is cancelled, the "SEQUENCE" property value MUST be incremented.	N	N
3.4.6 VTODO REFRESH	MAY	The "Organizer" of the "VTODO" calendar component MAY use this method to request an updated status from the "Attendees".	N	N
3.4.6 VTODO REFRESH	MUST	The "REFRESH" method MUST specify the "UID" property corresponding to the "VTODO" calendar component needing update.	N	N
3.4.6 VTODO REFRESH	MUST	A refresh of a recurrence instance of a "VTODO" calendar component may be requested by specifying the "RECURRENCE-ID" property corresponding to	N	N

RFC 2446 Feature Set	Requirement	iCalendar Transport-Independent Interoperability Protocol Condition	V1	V2
		the associated "VTODO" calendar component. The "Organizer" responds with the latest description and rendition of the "VTODO" calendar component. In most cases this will be a REQUEST unless the "VTODO" has been cancelled, in which case the ORGANIZER MUST send a "CANCEL". This method is intended to facilitate machine processing of requests for updates to a "VTODO" calendar component.		
3.4.7 VTODO COUNTER	SHOULD	The "Organizer" accepts the counter proposal by sending all of the "Attendees" of the "VTODO" calendar component a "REQUEST" method rescheduling the "VTODO" calendar component. In the latter case, the "Organizer" SHOULD reset the individual "RSVP" property parameter values to TRUE on each "ATTENDEE" property; in order to force a response by the "Attendees".	Y	N
3.5.1 VJOURNAL PUBLISH	MUST	VJOURNAL PUBLISH MUST have an "Organizer".	N	N
3.5.1 VJOURNAL PUBLISH	MUST NOT	VJOURNAL PUBLISH MUST NOT have "Attendees".	N	N
3.5.1 VJOURNAL PUBLISH	MAY	The "Organizer" MAY subsequently update (with another "PUBLISH" method) or cancel (with a "CANCEL" method) a previously published journal entry.	N	N
3.5.2 VJOURNAL ADD	MAY	If the "UID" property value in the "ADD" is not found on the recipient's calendar, then the recipient MAY treat the "ADD" as a "PUBLISH".	N	N
3.5.3 VJOURNAL CANCEL	MUST	To cancel the complete range of a recurring journal entry, the "UID" property value for the journal entry MUST be specified and a "RECURRENCE-ID" property MUST NOT be specified in the "CANCEL" method.	N	N
3.5.3 VJOURNAL CANCEL	MUST	In order to cancel an individual instance of the journal entry, the "RECURRENCE-ID" property value for the journal entry MUST be specified in the "CANCEL" method.	N	N
3.5.3 VJOURNAL CANCEL	MUST	When a "VJOURNAL" is cancelled, the "SEQUENCE" property value MUST be incremented.	N	N
3.6 Status Replies	MAY	Various optional responses MAY be added to the various Status Replies to explain the particular Status value	Y	Y
3.7.2 Attendee Property Considerations	MUST	The "ORGANIZER" property is required on published events, to-dos, and journal entries for two reasons. First, only the "Organizer" is allowed to update and redistribute an event or to-do component. It follows that the "ORGANIZER" property MUST be present in the event, to-do, or journal entry component so that the CUA has a basis for authorizing an update. Second, it is prudent to provide a point of contact for anyone who receives a published component in case of problems.	Y	Y
3.7.2 Attendee Property Considerations	MAY	There are valid <rfc822>> addresses that represent groups. Sending email to such an address results in mail being sent to multiple recipients. Such an address may be used as the value of an "ATTENDEE" property.	Y	Y
3.7.2 Attendee Property Considerations	MUST	Look for attendees where "TYPE=GROUP" or "TYPE= UNKNOWN". The CUA then determines if the "Calendar User" is a member of one of these groups. If so, the "REPLY" method sent to the "Organizer" MUST contain a new "ATTENDEE" property in which: 1) the "type" property parameter is set to INDIVIDUAL	N	N

RFC 2446   iCalendar Transport-Independent Interoperability Protocol

Feature Set	Requirement	Condition	V1	V2
		2) the "member" property parameter is set to the name of the group		
5 Application Protocol Fallbacks	SHOULD	Applications that support this memo are not required to support the entire protocol. The following describes how methods and properties SHOULD "fallback" in applications that do not support the complete protocol.	Y	Y

RFC 2447   iCalendar Message-Based Interoperability Protocol

Feature Set	Requirement	Condition	V1	V2
2.2.1 Authorization	SHOULD	Implementations of iMIP SHOULD verify the authenticity of the creator of an iCalendar object before taking any action. The methods for doing this are presented later in this document.	Y	Y
2.3 IETF RFC 822 Addresses	MUST	The calendar address specified within the "ATTENDEE" property in an iCalendar object MUST be a fully qualified, IETF RFC 822 address specification for the corresponding "Organizer" or "Attendee" of the "VEVENT" or "VTODO".	Y	Y
2.3 IETF RFC 822 Addresses	MUST	The addresses of "Organizers" or "Attendees" MUST be ascertained by opening the "text/calendar" MIME body part and examining the "ATTENDEE" and "ORGANIZER" properties.	Y	N
2.4 Content Type	MUST	A MIME body part containing content information that conforms to this document MUST have an IETF RFC 2045 "Content-Type" value of text/calendar".	Y	Y
2.4 Content Type	MUST	The IETF RFC 2045 "Content-Type" header field must also include the type parameter "method". The value MUST be the same as the value of the "METHOD" calendar property within the iCalendar object. This means that a MIME message containing multiple iCalendar objects with different method values must be further encapsulated with a "multipart/mixed" MIME entity. This will allow each of the iCalendar objects to be encapsulated within their own "text/calendar" MIME entity.	Y	Y
2.4 Content Type	MUST	A "charset" parameter MUST be present if the iCalendar object contains characters that are not part of the US-ASCII character set. IETF RFC 2046 discusses the selection of an appropriate "charset" value.	Y	Y
2.4 Content Type	SHOULD	In order to permit the information in the scheduling message to be understood by MIME user agents (UA) that do not support the "text/calendar" content type, scheduling messages SHOULD be sent with an alternative, human-readable form of the information.	Y	Y
2.5 Content-Transfer-Encoding	SHOULD	A transfer encoding SHOULD be used for iCalendar objects containing any characters that are not part of the US-ASCII character set.	Y	Y
2.6 Content-Disposition	SHOULD	The handling of a MIME part should be based on its IETF RFC 2045 "Content-Type". However, this is not guaranteed to work in all environments. Some environments handle MIME attachments based on their file type or extension. To operate correctly in these environments, implementations may wish to include a "Content-Disposition" property to define a file name.	Y	Y
3 Security Considerations	MUST	Compliant applications MUST support signing and encrypting text/calendar attachments using a mechanism based on Security Multiparts for MIME IETF RFC 1847 to facilitate the authentication the originator of the iCalendar object.	N	N

RFC 2447   iCalendar Message-Based Interoperability Protocol

Feature Set	Requirement	Condition	V1	V2
3 Security Considerations	MAY	Implementations MAY provide a means for users to disable signing and encrypting.	N	N
3 Security Considerations	MUST	1. The iCalendar object MUST be signed by the "Organizer" sending an update or the "Attendee" sending a reply.	N	N
3 Security Considerations	SHOULD	To address the confidentiality security threats, signed iMIP messages SHOULD be encrypted by a mechanism based on Security Multiparts for MIME IETF RFC 1847.	N	N
3 Security Considerations	MUST	Implementations MUST provide mechanisms for the "Calendar Users" to make that decision before applying changes from someone working on behalf of a "Calendar User".	N	N

Bibliography

[1]   IETF RFC 1738, T. BERNERS-LEE, L. MASINTER and M. MCCAHILL. *Uniform Resource Locators (URL)*. 1994. RFC Publisher. https://www.rfc-editor.org/info/rfc1738.

[2]   IETF RFC 822, D. CROCKER. *STANDARD FOR THE FORMAT OF ARPA INTERNET TEXT MESSAGES*. 1982. RFC Publisher. https://www.rfc-editor.org/info/rfc822.

[3]   IETF RFC 1847, J. GALVIN, S. MURPHY, S. CROCKER and N. FREED. *Security Multiparts for MIME: Multipart/Signed and Multipart/Encrypted*. 1995. RFC Publisher. https://www.rfc-editor.org/info/rfc1847.

[4]   IETF RFC 2045, N. FREED and N. BORENSTEIN. *Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies*. 1996. RFC Publisher. https://www.rfc-editor.org/info/rfc2045.

[5]   IETF RFC 2046, N. FREED and N. BORENSTEIN. *Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types*. 1996. RFC Publisher. https://www.rfc-editor.org/info/rfc2046.

[6]   ISO 9070, International Organization for Standardization. *Information processing — SGML support facilities — Registration procedures for public text owner identifiers*. First edition. Geneva. https://www.iso.org/standard/16644.html.