vCard representation of resources
draft-cal-resource-vcard-03

Abstract

This specification describes the vCard representation of resources.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at http://datatracker.ietf.org/drafts/current/.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

This Internet-Draft will expire on March 21, 2014.

Copyright Notice

Copyright (c) 2013 IETF Trust and the persons identified as the document authors. All rights reserved.

This document is subject to BCP 78 and the IETF Trust's Legal Provisions Relating to IETF Documents (http://trustee.ietf.org/license-info) in effect on the date of publication of this document. Please review these documents carefully, as they describe your rights and restrictions with respect to this document. Code Components extracted from this document must include Simplified BSD License text as described in Section 4.e of the Trust Legal Provisions and are provided without warranty as described in the Simplified BSD License.
1.  Introduction

This specification defines the vCard representation of resources to ease their discovery by clients.

2.  Conventions Used in This Document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].
3. General Considerations

Data values MUST have valid representation for the specified value type with respect to escape characters, line folding, and so on.

4. Resource Object

A resource object definition SHOULD contain all information required to find the right resource. For this, it SHOULD contain all, or a set of properties described in Section 5. Additional proprietary properties may be defined as well, but MUST begin with "X-". Clients encountering properties they don't know about MUST ignore them.

Properties required to contact or schedule the resource are not included in this specification. vCard properties defined in vCard Format Specification [RFC6350] can be used to include additional contact information for the resource.

5. Resource Properties

5.1. Mandatory Properties

The following properties MUST be specified in a vCard representing a resource:

- FN
- UID
- KIND

5.1.1. Special Notes:

5.1.1.1. KIND

Some of the possible values for the KIND property are "Location", "Individual", "Device", or "Group".

Location is used for any physical location resource such as room, building, etc.

Individual is used for a human resource such as driver, technician, etc.

Device is used for a computing device such as an appliance, a computer, or a network element.
Group is used to specify a group of resources with a specific skill set. For example: drivers, electricians, etc.

5.2. Base vCard Properties

The following properties defined in [RFC6350] or [RFC2739] make sense for vCards representing resources (this list is not exhaustive, and other properties might be applicable as well):

- ADR
- CALADRURI
- CATEGORIES
- EMAIL
- FBURL
- FN
- KIND
- MEMBER
- NOTE
- NICKNAME
- ORG
- PHOTO
- RELATED
- TZ
- UID

5.3. New vCard Properties for resources

Format and cardinality of new vCard properties are defined as described in Section 3.3 of [RFC6350].

5.3.1. ACCESSIBLE

Purpose: Specify if the resource is accessible to physically disabled people.
Value Type: Boolean value.
Cardinality: *1

ABNF:

ACCESSIBLE-param = "VALUE=boolean" / any-param
ACCESSIBLE-value = boolean

Default value: FALSE.
Example value: TRUE

5.3.2. ACCESSIBILITYINFO

Purpose:
Specify special resource accessibility info for the physically disabled people.

Value Type: URI value. It MAY also be a free-form text value.
Cardinality: *

ABNF:

ACCESSIBILITYINFO-param = "VALUE=" ("text" / "uri") / any-param
ACCESSIBILITYINFO-value = URI / text

Default value: None
Example value: http://www.example.com/room1_specialaccess.html

5.3.3. CAPACITY

Purpose: Provide information on the capacity of the resource.

Value Type: Integer.
Cardinality: *1

ABNF:

CAPACITY-param = "VALUE=integer" / any-param
CAPACITY-value = integer
5.3.4.  INVENTORY

Purpose:  List other resources available as part of this resource.

Value Type:  Value MAY be a URI that could be a vCard. The vCard could be of the KIND group whose members point to the various inventory items. Value MAY also be a free form text listing one or more inventory items.

Cardinality:  *

ABNF:

INVENTORY-param = "VALUE=" ("text" / "uri") / any-param
INVENTORY-value = uri / text

Default value:  None

Example values:  Printer, Projector http://www.example.com/Room1Inventory.vcf

5.3.5.  LOCATIONTYPE

Purpose:  Provide more information on the type of a LOCATION resource.

Value Type:  Text.

The value SHOULD be one of the values defined in [RFC4589]

Cardinality:  *

ABNF:

LOCATIONTYPE-param = "VALUE=text" / any-param
LOCATIONTYPE-value = text

Default value:  None

Example value:  office
5.3.6. **RESTRICTED**

Purpose: Specify if there are restrictions to physically accessing the resource. For example locked doors, or other barriers.

ValueType: Boolean value.

Cardinality: *1

ABNF:

RESTRICTED-param = "VALUE=boolean" / any-param
RESTRICTED-value = boolean

Default value: FALSE.

Absence of this property indicates no restriction to physically accessing the resource.

Example value: TRUE

5.3.7. **RESTRICTEDACCESSINFO**

Purpose: Specify extra information on physically accessing resources that have restrictions. For example where to pick up keys to a locked resource.

ValueType: URI value. It MAY also be a free-form text value.

Cardinality: *

ABNF:

RESTRICTEDACCESSINFO-param = "VALUE=\"text\" / "uri\"" / any-param
RESTRICTEDACCESSINFO-value = URI / text

Default value: None

Example value: http://www.example.com/room1_entryinfo.html

5.3.8. **NOCOST**

Purpose: Specify if there is a cost associated with using the resource.

ValueType: Boolean value.
Cardinality:  *1

ABNF:

NOCOST-param = "VALUE=boolean" / any-param
NOCOST-value = boolean

Special Notes:  If this property is absent, it indicates that the resource may be booked free of cost.

Default value:  TRUE

Example value:  TRUE

5.3.9. COSTINFO

Purpose:  Provide the URL pointing to complete pricing information for usage of the resource.

ValueType:  URI value.  It MAY also be a free-form text value.

Cardinality:  *

ABNF:

COSTINFO-param = "VALUE=" ("text" / "uri") / any-param
COSTINFO-value = uri / text

Default value:  None

Example value:  http://www.example.com/cost.html

5.4. New Parameter Values

5.4.1. RELATED TYPE Values

This document specifies the following additional values that can be used as the value for the TYPE parameter of the RELATED property defined in Section 6.6.6 of [RFC6350].

- container: an entity that contains the entity associated with this vCard. For example, the building that contains the room resource specified by the vCard.

- manager: an entity that manages the resource entity associated with this vCard.
o owner: an entity that owns the resource entity associated with this vCard.

6. Examples

6.1. Location Resource

This example defines a room resource.

BEGIN:VCARD
VERSION:4.0
UID:urn:uuid:room1-id
KIND: location
LOCATIONTYPE: classroom
FN: Room One
ORG: Engineering
NICKNAME: The One
NOTE: Room 1 in Engineering Building X
CATEGORIES: rooms, engineering_resources
CALADRURI: mailto:room1@example.com
ACCESSIBLE: TRUE
ACCESSIBILITYINFO: http://www.example.com/room1_disabledaccess.html
CAPACITY: 100
INVENTORY: phone, projector
FBURL: http://www.example.com/freebusy/home/Room1/
TZ: America/Los_Angeles
RELATED;TYPE=owner: http://www.example.com/ResOwner1.vcf
RELATED;TYPE=manager: http://www.example.com/ResManager1.vcf
RELATED;TYPE=container:http://www.example.com/BldX.vcf
RESTRICTED: TRUE
RESTRICTEDACCESSINFO: http://www.example.com/room1_splaccess.html
NOCOST: FALSE
COSTINFO: http://www.example.com/cost.html
END:VCARD

6.2. Role Resources Group

This example defines a group resource.
BEGIN:VCARD
VERSION:4.0
UID:urn:uuid:driverXPool-id
KIND: group
FN: Driver X Pool
ORG: Transportation
NICKNAME: The X Group
NOTE: Drivers in the Transportation department driver pool X
CATEGORIES: drivers
MEMBER:urn:uuid:driver1-id
MEMBER:urn:uuid:driver2-id
MEMBER:urn:uuid:driver3-id
FBURL: http://www.example.com/freebusy/home/DriversX/
TZ: America/Los_Angeles
RELATED;TYPE=manager:
    http://www.example.com/DriversManager.vcf
NOCOST: FALSE
COSTINFO: http://www.example.com/driversXcost.html
END:VCARD

7. Security Considerations

As this document only defines schema for representing resource information and does not refer to the actual storage mechanism itself, or any data exchange protocol, no special security considerations are required as part of this document.

8. IANA Considerations

8.1. VCard Property and Value Registration

The following new VCard Properties need to be registered by IANA.

New VCard Properties Table:
The following new VCard Parameter Values need to be registered by IANA.

New VCard Properties Table:

<table>
<thead>
<tr>
<th>VCard Property Name</th>
<th>VCard Parameter Name</th>
<th>VCard Parameter Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELATED</td>
<td>TYPE</td>
<td>container Section 5.4.1</td>
</tr>
<tr>
<td>RELATED</td>
<td>TYPE</td>
<td>manager Section 5.4.1</td>
</tr>
<tr>
<td>RELATED</td>
<td>TYPE</td>
<td>owner Section 5.4.1</td>
</tr>
</tbody>
</table>

9. Acknowledgments

This specification is a result of discussions that took place within the Calendaring and Scheduling Consortium's Resource Technical Committee. The authors thank the participants of that group, and specifically the following individuals for contributing their ideas and support: Arnaud Quillaud, Adam Lewenberg, Andrew Laurence, Guy Stalnaker, Mimi Mugler, Dave Thewlis, Bernard Desruisseaux, Alain Petit, Andrew Sciberras, Adrian Apthorp, and Jason Miller.

10. Normative References


Authors' Addresses

Ciny Joy
Oracle Corporation
4210 Network Circle
Santa Clara, CA 95054
USA

EMail: ciny.joy@oracle.com
URI: http://www.oracle.com/

Cyrus Daboo
Apple Inc.
1 Infinite Loop
Cupertino, CA 95014
USA

EMail: cyrus@daboo.name
URI: http://www.apple.com/

Michael Douglass
Rensselaer Polytechnic Institute
110 8th Street
Troy, NY 12180
USA

EMail: douglm@rpi.edu
URI: http://www.rpi.edu/