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WebDAV Resource Sharing
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Abstract

This specification defines an extension to WebDAV that enables the sharing of resources between users on a WebDAV server.

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1. Introduction

Users of CalDAV [RFC4791] and CardDAV [RFC6352] often require a mechanism to share a calendar or address book collection with other users.

This specification introduces a mechanism that allows users of WebDAV servers to invite another user to share a resource or WebDAV collection. The invited user can either accept or reject the invite, which is communicated back to the sharer. If the user chooses to accept the invite, the shared resource will then appear in a location on the server that's accessible by the invitee.

There are existing mechanism that address similar use-cases, such as using WebDAV ACL [RFC3744] for fine-grained access control. Experiences has shown that client developers are averse to using it due its complexity. Many implementations have chosen to only use WebDAV ACL for communicating access control information to clients, but not for modification. WebDAV ACL alone also does not provide the means for a user to invite another user.

HTTP POST operations are used to manage the sharing invitations and replies, and WebDAV properties are used to expose the state of shared resources.

This specification uses WebDAV notifications to communicate to users there are outstanding invitations, or responses to invitations.

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].

When XML element types in the namespaces "DAV:" and "urn:ietf:params:xml:ns:caldav" are referenced in this document outside of the context of an XML fragment, the string "DAV:" and "CALDAV:" will be prefixed to the element type names respectively.

Terms Used:

Sharer A user who is sharing a resource with other users.

Sharee A user to whom a resource has been shared.

Sharing Invite A message sent by a sharer to a sharee to indicate the status of a shared resource.

Sharing Reply A message sent by a sharee to a sharer to indicate the status of a shared resource.

The DTD samples used in this document are for illustrative purposes only. The conventions and restrictions described in [RFC4918] section 17.

3. Overview

This section provides a basic overview of this protocol by way of a simple use case of a sharer sharing a collection with a single sharee.

To share a resource with another user, the sharer's client executes an HTTP POST request against the resource that's to be shared. The POST request body will contain details of the user to whom the resource is to be shared as well as the access right to be granted to them. If the request succeeds, a notification is sent to the sharee with details of the resource being shared to them.

The sharer's client will show the notification to the sharee and present them with the choice to accept or decline the invitation to the shared collection. If the sharee chooses to decline, then nothing changes for that sharee. If the sharee chooses to accept, then a new resource is created at a location that's accessible to the sharee. The server enforces the appropriate access privileges for the sharee.

At any time, the sharer can inspect properties on the resource being shared, and determine the accept/decline status of each sharee. Additional sharees can be added and existing ones removed. The access privileges for existing sharees can also be changed.

Once a sharee has access to the shared resource, they can remove it and decline the sharing invite by simply having their client issue an HTTP DELETE request on the shared collection. That does not delete any data, but rather simply removes the "link" to the sharer's resource and sets the sharee's invite status to declined.

4. Notification Definitions

In order to facilitate the process of sharing invitations, this specification uses WebDAV notifications, and defines several new notification types.

4.1. Invite Notification

When a sharer adds a new sharee to a resource, or updates a sharee, an invite notification is added to the sharee's notification collection.

The notification contains information about the shared resource, the owner and how to respond to the invitation.

4.1.1. Example: An invite notification

This is an example of a response to a GET request on a correct invite notification. Note that several HTTP response headers have been removed for brevity.

```
HTTP/1.1 200 OK
Content-Type: application/davnotification+xml
Content-Length: xxxx

<D:notification xmlns:D="DAV:">
    <D:dtstamp>2014-08-05T13:38:02Z</D:dtstamp>
    <D:invite-notification>
        <D:principal>
            <D:href>/principals/users/evert/</D:href>
        </D:principal>
        <D:invite-accepted />
        <D:href>/calendars/users/evert/offdays/</D:href>
        <D:access><D:read-write /></D:access>
        <D:prop>
            <D:displayname>Vacation days!!</D:displayname>
            <D:resourcetype><D:collection /></D:resourcetype>
        </D:prop>
    </D:invite-notification>
</D:notification>
```

4.2. Invite Reply

After a sharee has accepted or declined an invitation, the sharer receives a reply-notification in their notification collection.

This notification contains information about which collection this relates to, and who responded to the invite.

4.2.1. Example: An invite reply

This is an example of a response to a GET request on a correct invite notification. Note that several HTTP response headers have been removed for brevity.

```
HTTP/1.1 200 OK
Content-Type: application/davnotification+xml
Content-Length: xxxx

<D:notification xmlns:D="DAV:">
    <D:dtstamp>2014-09-03T02:30:00Z</D:dtstamp>
    <D:reply-notification>
        <D:principal>
            <D:href>mailto:john@example.org</D:href>
        </D:principal>
        <D:invite-declined />
        <D:href>/calendars/users/evert/offdays/</D:href>
        <D:comment>Sorry, I'm not interested</D:comment>
    </D:reply-notification>
</D:notification>
```

5. Resource sharing

5.1. Feature Discovery

A server that supports the features described in this document MUST include "resource-sharing" as a field in the DAV response header from an OPTIONS request on any resource that supports these features.

5.2. Additional Properties for resources

The following new or modified WebDAV properties are defined for resources and used to view or manipulate shared resources features.

5.2.1. DAV:share-mode Property

Resources that are shared must have a DAV:share-mode property. It's value should be one of two elements:

- o DAV:shared-owner (Section 7.1): used to indicate that the resource is owned by the current user and is being shared by them.

- o DAV:shared (Section 7.2): used to indicate that the resource is owned by another user and is being shared to the current user.

5.2.2. DAV:invite Property

Name: invite

Namespace: DAV:

Purpose: Used to show to whom a resource has been shared.

Protected: This property MUST be protected.

PROPFIND behavior: This property SHOULD NOT be returned by a PROPFIND allprop request (as defined in Section 14.2 of [RFC4918]).

COPY/MOVE behavior: This property value MUST be preserved in MOVE operations, but MUST NOT be preserved in COPY operations.

Description: This WebDAV property is present on a resource that has been shared by the owner, or on the resources for the sharees. It provides a list of users to whom the resource has been shared, along with the "status" of the sharing invites sent to each user. In addition, servers SHOULD include a DAV:principal XML element on resources of the sharees to provide clients with a fast way to determine who the sharer is. A server's local privacy policy may prevent sharees from knowing about other sharees on a shared calendar. If that is so server will not include DAV:user XML elements for other sharees.

Definition:

```
<!ELEMENT invite (organizer?, user*)>
```

5.2.3. DAV:sharer-resource-url Property

Name: sharer-resource-url

Namespace: DAV:

Purpose: Indicates the URL of the owner's copy of a shared resource.

Protected: This property MUST be protected.

PROPFIND behavior: This property SHOULD NOT be returned by a PROPFIND allprop request (as defined in Section 14.2 of [RFC4918]).

COPY/MOVE behavior: This property value MUST be preserved in COPY and MOVE operations.

Description: This WebDAV property MAY be present on a shared resource. Its content is a single DAV:href element whose value is the URL of the sharer's resource being shared.

Definition:

```
<!ELEMENT sharer-resource-url (DAV:href)>
```

5.3. Sharer Actions on Shared Resource

5.3.1. Sharing or Unsharing a Resource

To update an existing resource to be shared, the sharer simply adds one or more sharees to the resource as per Section 5.3.2. The server MUST indicate that the resource is now shared by updating the value of the DAV:share-mode WebDAV property.

To unshare a resource, the sharer simply removes all sharees from the DAV:invite property of the resource as per Section 5.3.2. The server MUST indicate that the resource is no longer shared by removing the value from the DAV:share-mode WebDAV property.

5.3.2. Manipulating Sharees of a Shared Resource

The sharer of a shared resource is able to manipulate the sharee list by issuing a POST request targeted at the resource. The POST request MUST contain an XML document as its body with the root element being DAV:share-resource (Section 7.20).

The POST request MUST contain a Content-Type HTTP header, which MUST contain "application/davshare+xml" as its value. Servers SHOULD reject the request if this is not the case.

The DAV:share-resource (Section 7.20) element in the POST requests MUST contain one or more DAV:set-invitee (Section 7.21) or DAV:remove-invitee (Section 7.22) elements. For each DAV:set-invitee (Section 7.21) element, the server MUST add the specified sharee access to the resource. For each DAV:remove-invitee (Section 7.22) element the server MUST remove the specified sharee access from the shared resource. In each case the server MUST send a notification message to any sharees whose status is changed (added, modified or removed), indicating to them a change in status for the shared resource. This is accomplished by sending a DAV:invite-notification (Section 7.14) notification to each sharee. The server SHOULD NOT send notification messages to sharees whose status is unchanged.

Sharees are identified via a DAV:href element whose value is either a principal-URL for a sharee hosted on the same server, an email address, or any other URI identifying a user. In the case of the later two, the sharee might not be a user on the same server - though in that case how invitations are sent or access enabled is out of scope for this specification. A server MAY change the sharee's "address" to any suitable alternative that it might prefer when returning the list of sharees via the DAV:invite property (Section 5.2.2).

The client MAY include a DAV:displayname element in the DAV:set-invitee (Section 7.21) element. When provided, the value represents the common name for the sharee, and is returned in the list of sharees via the DAV:invite property (Section 5.2.2). The server MAY change this to a suitable alternative when it is able to match the sharee to a known user. If absent from the client request, the server SHOULD add a DAV:displayname when it is able to match the sharee with a known user, and a common name for that user can be determined.

5.3.2.1. Example: Successful Sharee Add Request

This example shows how to add a single sharee (with email address "mailto:eric@example.com") to a shared resource with DAV:read-write access.

```
>> Request <<

POST /calendars/users/cyrus/shared/ HTTP/1.1
Host: calendar.example.com
Content-Type: application/davsharing+xml; charset="utf-8"
Content-Length: xxxx

<?xml version="1.0" encoding="utf-8" ?>
<D:share-resource xmlns:D="DAV:">
  <D:set-invitee>
    <D:href>mailto:eric@example.com</D:href>
    <D:displayname>Eric York</D:displayname>
    <D:comment>Shared workspace</D:comment>
    <D:read-write />
  </D:set-invitee>
</D:share-resource>

>> Response <<

HTTP/1.1 200 OK
Cache-Control: no-cache
Date: Sat, 11 Nov 2006 09:32:12 GMT
```

5.3.2.2. Example: Successful Multiple Sharee Change Request

This example shows how multiple sharee's can be manipulated in a single request. The sharee with email address "mailto:eric@example.com" has their access downgraded to CS:read, whilst another sharee is removed from the access list entirely.

```
>> Request <<

POST /calendars/users/cyrus/shared/ HTTP/1.1
Host: calendar.example.com
Content-Type: application/davsharing+xml; charset="utf-8"
Content-Length: xxxx

<?xml version="1.0" encoding="utf-8" ?>
<D:share-resource xmlns:D="DAV:">
  <D:set-invitee>
    <D:href>mailto:eric@example.com</D:href>
    <D:comment>Shared workspace</D:comment>
    <D:read-write />
  </D:set-invitee>
  <D:remove-invitee>
    <D:href>mailto:wilfredo@example.com</D:href>
  </D:remove-invitee>
</D:share-resource>

>> Response <<

HTTP/1.1 204 No Content
Cache-Control: no-cache
Date: Sat, 11 Nov 2006 09:32:12 GMT
```

5.4. Sharee Actions on Shared Resources

5.4.1. Replying to a Sharing Invite

When a sharee is invited to a shared resource they can accept or decline the invite by issuing a POST request to the resource URI for the invitation notification. The POST request MUST contain an XML document as its body with the root element being DAV:invite-reply (Section 7.17).

The POST request MUST contain a Content-Type HTTP header, which MUST contain "application/davshare+xml" as its value. Servers SHOULD reject the request if this is not the case.

The DAV:invite-reply (Section 7.17) element in the POST request specifies the accept or decline action via the DAV:invite-accepted or DAV:invite-declined elements, and an optional DAV:comment element. IF the invite was accepted, the body MUST also contain a DAV:create-in (Section 7.19) element. This element contains a single DAV:href element, which content is a URI that will be used as the parent for the new shared resource.

The client MAY also provide a DAV:slug property. The server MAY use the contents of this property to determine the name of the new resource.

All usual preconditions for creating a resource at the DAV:create-in target collection need to be taken into consideration.

Note that some servers may restrict where certain types of resources may be created. A CalDAV server for instance, may only allow calendars to be created in collections identified by the CALDAV:calendar-home-set WebDAV property.

A successful response to an accepted invitation, SHOULD have a HTTP 201 status code, and MUST have a HTTP Location header, containing the full url to the newly created resource.

A successful response to a declined invitation, SHOULD contain a 200 or 204 HTTP status code.

When the sharee replies to an invite, the server SHOULD send a notification to the sharer to update them on the change in the sharee state. This is accomplished by sending a DAV:reply-notification (Section 7.18) notification to the sharer.

After the sharee has issued a reply, the server SHOULD also remove the notification that contained the initial invite.

5.4.1.1. Example: Accepting an invite

This is an example of a request that the sharee would send to accept an invitation.

```
POST /principals/users/evert/notifications/1000455.xml HTTP/1.1
Host: calendar.example.com
Content-Type: application/davsharing+xml; charset="utf-8"

<?xml version="1.0" encoding="utf-8" ?>
<D:invite-reply xmlns:D="DAV:">
    <D:invite-accepted />
    <D:create-in>
        <D:href>/calendars/users/evert/</D:href>
    </D:create-in>
    <D:slug>Tech meetups</D:slug>
</D:invite-reply>
```

5.4.2. Ignoring an invitation

For privacy reasons, sharees need to be able to remove invitations without notifiying the sharer.

When the sharee issues a DELETE on an invite-notification, the server MUST remove the notification, and MUST NOT let the sharer know about this.

As a result, from the sharers perspective, the invitation status for that principal will always remain as DAV:invite-noreply.

5.4.3. Making modifications to a shared resource

Any changes that a sharee makes to a shared resource should also be reflected in the sharers instance of the resource.

If the shared resource is a collection, any resources in the collection, or in the collection's child-collections MUST also appear in the sharers instance.

5.4.4. Removing a shared resource

To remove a shared resource a DELETE request is targeted at the shared resource URI. When such a request is received the server MUST remove the shared collection and automatically update the sharee's status in the sharer's DAV:invite property.

5.5. General Considerations

5.5.1. Access Levels

Two levels of access can be granted by a sharer to any sharee. These are governed by the DAV:access element used in the DAV:invite/ DAV:user element that specifies a shared user invite. DAV:access contains a single empty element that defines the type of access granted:

DAV:read When present this indicates that sharees can read information from the resource, but cannot change it. This applies to the resource, but if the shared resource is a collection, it also applies to the collection's children.

DAV:read-write When present this indicates that sharees can read and write information from the resource.

The function of the DAV:read and DAV:read-write elements is to give a quick indicator for a sharee what kind of access they may expect.

The server may still set more fine-grained access control rules. The sharee can find out about these rules by requesting the DAV:current-user-privilege-set property on the shared resource, or its children.

5.5.2. Per-instance WebDAV Properties

Servers MUST support "per-instance" WebDAV properties on shared resource and MAY support them on resources within shared collections. A "per-instance" WebDAV property is one whose value can be set and retrieved on an instance of a resource, but is not automatically propagated to other instances of the same shared resource. For example, a sharee may change a property on their instance of a shared resource, but the instance of the owner of the resource will not see this updated value.

For shared resources, the server MUST allow all users to write "per-instance" WebDAV properties on the shared resources and MAY allow property writes on resources within the shared resources. This is required even in the case where the sharee has been granted read access only (i.e., the ability to change the resource is disallowed). This requirement ensures that sharees can always change "personal" properties such as display names.

Servers MAY treat any dead property as per-instance.

Servers MUST NOT treat live properties as per-instance.

6. Sharing privileges

Servers MAY support sharing on a per-resource basis. This section defines a "DAV:share" WebDAV Access Control (ACL) [RFC3744] privilege for use on collections that may be shared.

This privilege MUST be non-abstract and MAY be protected. This privilege MUST appear in the DAV:supported-privilege-set property for resources that may be shared. In addition, it MUST appear in the DAV:current-user-privilege-set, if the user is allowed to share the collection.

7. XML Element Definitions

7.1. DAV:shared-owner

Name: shared-owner

Namespace: DAV:

Purpose: Used to indicate that a resource is being shared by the owner.

Description: This property appears in the DAV:share-mode property on the resource shared by a sharer. See Section 5.2.

Definition:

```
<!ELEMENT shared-owner EMPTY>
```

7.2. DAV:shared

Name: shared

Namespace: DAV:

Purpose: Used to indicate that a resources is being shared to a sharee.

Description: This property appears in the DAV:share-mode property on a resource that is shared to a sharee. See Section 5.2.

Definition:

```
<!ELEMENT shared EMPTY>
```

7.3. DAV:share-mode

Name: share-mode

Namespace: DAV:

Purpose: Used to indicate that a resource is being shared.

Description: This is a WebDAV property that may appear on an instance of a shared resource. See Section 5.2.

Definition:

```
<!ELEMENT share-mode (shared | shared-owner)?>
```

7.4. DAV:share

Name: share

Namespace: DAV:

Purpose: A WebDAV ACL privilege to control sharing.

Description: This element represents a WebDAV ACL privilege [RFC3744], and indicates that the current principal is allowed to share the resource on which it is defined.

Definition:

```
<!ELEMENT share EMPTY>
```

7.5. DAV:user

Name: user

Namespace: DAV:

Purpose: Used to show status of sharing invites sent to sharees.

Description: This element provides the "status" of a sharing invite sent to a particular user. See Section 5.2.2.

Definition:

```
<!ELEMENT user (href, displayname?, (invite-noresponse |
                invite-accepted | invite-declined | invite-invalid),
                access, comment?)>
```

7.6. DAV:invite-noresponse

Name: invite-noresponse

Namespace: DAV:

Purpose: Sharing invite status.

Description: When used in a DAV:user (Section 7.5) element, this element is used to indicate that the sharee has never replied to the corresponding sharing invite. When used in a DAV:invite-notification (Section 7.14) element, this element is used to indicate to the sharee that a sharing reply is needed.

Definition:

```
<!ELEMENT invite-noresponse EMPTY>
```

7.7. DAV:invite-deleted

Name: invite-deleted

Namespace: DAV:

Purpose: Sharing invite status.

Description: When used in a DAV:invite-notification (Section 7.14) element, this element is used to indicate to the sharee that a shared resource has been unshared by the sharer.

Definition:

```
<!ELEMENT invite-deleted EMPTY>
```

7.8. DAV:invite-accepted

Name: invite-accepted

Namespace: DAV:

Purpose: Sharing invite status.

Description: When used in a DAV:user (Section 7.5) element, this element is used to indicate that the sharee has accepted the corresponding sharing invite. When used in a DAV:invite-notification (Section 7.14) element, this element is used to indicate to the sharee that the sharing invite is an update for one they previously accepted.

Definition:

```
<!ELEMENT invite-accepted EMPTY>
```

7.9. DAV:invite-declined

Name: invite-declined

Namespace: DAV:

Purpose: Sharing invite status.

Description: When used in a DAV:user (Section 7.5) element, this element is used to indicate that the sharee has declined the corresponding sharing invite. When used in a DAV:invite-notification (Section 7.14) element, this element is used to indicate to the sharee that the sharing invite is an update for one they previously declined.

Definition:

```
<!ELEMENT invite-declined EMPTY>
```

7.10. DAV:invite-invalid

Name: invite-invalid

Namespace: DAV:

Purpose: Sharing invite status.

Description: When used in a DAV:user (Section 7.5) element, this element is used to indicate that the corresponding sharee is not a valid user known to the server.

Definition:

```
<!ELEMENT invite-invalid EMPTY>
```

7.11. DAV:access

Name: access

Namespace: DAV:

Purpose: Shared resource access level.

Description: When used in a DAV:user (Section 7.5) element, this element is used to indicate the sharing access level granted to the corresponding sharee.

Definition:

```
<!ELEMENT access (read | read-write)>
```

7.12. DAV:read

Name: read

Namespace: DAV:

Purpose: Shared resource access level privilege.

Description: Indicates that the access level granted only allows sharees to read data in the shared resource (though they can write per-instance data (Section 5.5.2)).

Definition:

```
<!ELEMENT read EMPTY>
```

7.13. DAV:read-write

Name: read-write

Namespace: DAV:

Purpose: Shared resource access level privilege.

Description: Indicates that the access level granted allows sharees to read and write all data in the resource.

Definition:

```
<!ELEMENT read-write EMPTY>
```

7.14. DAV:invite-notification

Name: invite-notification

Namespace: DAV:

Purpose: A notification used as a shared resource invite.

Description: Defines a notification message sent automatically by the server when a sharer adds, changes or removes a sharee from a shared resource. The DAV:href element specifies the URI of the sharee to whom the message was sent.

Definition:

```
<!ELEMENT invite-notification (
            dav:href,
            (invite-noresponse | invite-deleted |
            invite-accepted | invite-declined),
            access, principal,
            comment?,
>
```

7.15. DAV:hosturl

Name: hosturl

Namespace: DAV:

Purpose: Identifies the source URL of a shared resource.

Description: Contains a single DAV:href element that refers to the source of a shared resource - i.e., the URL of the resource shared by the sharer.

Definition:

```
<!ELEMENT hosturl (DAV:href)>
```

7.16. DAV:organizer

Name: organizer

Namespace: DAV:

Purpose: Identifies the sharer of a shared resource.

Description: Contains a single DAV:href element that identifies the URI of the sharer of a shared resource, and an optional DAV:displayname element that matches that user.

Definition:

```
<!ELEMENT organizer (href,
                     displayname?)?)>
```

7.17. DAV:invite-reply

Name: invite-reply

Namespace: DAV:

Purpose: Root element for a POST request used to respond to a share invitation.

Description: When a user responds to an invitation, the user issues a POST request with an xml body. DAV:invite-reply is the root element for this xml document.

Definition:

```
<!ELEMENT invite-reply (href,
                        (invite-accepted | invite-declined),
                        hosturl, create-in?, comment?>
```

7.18. DAV:reply-notification

Name: reply-notification

Namespace: DAV:

Purpose: A notification used as a reply to a shared resource invite.

Description: Defines a notification message sent automatically by the server when a sharee replies to a shared resource invite. The DAV:href element specifies the URI of the sharee to whom the original invite message was sent.

Definition:

```
<!ELEMENT invite-reply (href,
                        (invite-accepted | invite-declined),
                        hosturl, create-in?, comment?>
```

7.19. DAV:create-in

Name: create-in

Namespace: DAV:

Purpose: The target url for the new resource.

Description: When a user accepts an invitation to share a resource, this URI will be used to create the new shared resource.

Definition:

```
<!ELEMENT create-in (DAV:href)>
```

7.20. DAV:share-resource

Name: share-resource

Namespace: DAV:

Purpose: Describes changes to sharees.

Description: The root element used in POST requests on resources by sharers to manipulate the sharee list of a shared resource.

Definition:

```
<!ELEMENT share-resource (set | remove)*>
```

7.21. DAV:set-invitee

Name: set-invitee

Namespace: DAV:

Purpose: Sets access for a sharee.

Description: Used to add or modify sharee access to a shared resource. The specified access to the shared resource is given to the sharee.

Definition:

```
<!ELEMENT set-invitee (href, displayname?, comment?,
                (read | read-write)>
```

7.22. DAV:remove-invitee

Name: remove-invitee

Namespace: DAV:

Purpose: Removes access for a sharee.

Description: Used to remove sharee access to a shared resource. All access to the shared resource is removed for the sharee.

Definition:

```
<!ELEMENT remove-invitee (href)>
```

7.23. DAV:shared-as

Name: shared-as

Namespace: DAV:

Purpose: Identifies a shared resource.

Description: Returned by the server for a POST request by a sharee accepting a shared resource invite. The DAV:href element specifies the URI of the resource created by the acceptance.

Definition:

```
<!ELEMENT shared-as (DAV:href)>
```

8. Security Considerations

TBD

9. IANA Considerations

This document does not require any actions on the part of IANA.

10. Acknowledgments

The authors would like to thank the members of the Calendaring and Scheduling Consortium's SharingTechnical Committee. In particular, the following individuals have made important contributions to this work: Richard Brigham, John Chaffee, Michael Douglass and Ken Murchison and Dave Thewlis.

This specification originated from work at the Calendaring and Scheduling Consortium, which has supported the development and testing of implementations of the specification.

11. IANA Considerations

This document defines a MIME media type for XML documents used in for sharing. This media type SHOULD be used for all POST requests in this specification.

Type name: application

Subtype name: davsharing+xml

Required parameters: none

Optional parameters: none

Encoding considerations: Identical to those of "application/xml" as described in RFC7303 [RFC7303].

Security considerations: N/A.

Interoperability considerations: There are no known interoperability issues.

Published specification: This specification.

Applications that use this media type: No known applications currently use this media type.

Fragment identifier considerations: N/A.

Additional information

Deprecated alias names for this type N/A.

Magic number(s) N/A.

File extension(s) xml

Macintosh file type code(s) TEXT

Person & email address to contact for further information:
me@evertpot.com

Intended usage COMMON

Restrictions on usage There are no restrictions on where this media

Author See the "Authors' Addresses" section of this document.

Change Controller IETF

12. Normative References

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Appendix A. Backwards compatibility

This specification is based on an earlier effort, often referred to as 'caldav-sharing'. It is possible to remain compatibile with this specification, but it's important to be aware of a number of changes.

The earlier draft uses the http://calendarserver.org/ns/ namespace for all its xml elements. This means that any WebDAV property introduced in this specification, may need to have a similar property in the old namespace.

XML documents as sent by POST requests and responses, and resources returned from notifications can be distinguished by the use of the Content-Type and Accept HTTP headers. The earlier draft does not define new mime-types for these, but this specification does.

Appendix B. Change History (to be removed prior to publication as an RFC

Changes in -02:

1. Renamed DAV:shared-url to DAV:sharer-instance-url

2. Introduced DAV:share-mode WebDAV property

3. Removed additions to DAV:resource-type to indicate that a resource is shared.

Changes in -01:

1. Fixed some issues in the DTD declatations of set-invitee and remove-invitee.

2. Removed an unused normative reference.

3. Removed 'open issues' section.

4. Added a paragraph about xml/dtd handling with a reference to RFC4917

5. Renamed DAV:share to DAV:share-resource for the POST request

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