        Extensible Markup Language (XML) Format Extension for Representing
                  Copy Control Attributes in Resource Lists

Status of This Memo

   This document specifies an Internet standards track protocol for the
   Internet community, and requests discussion and suggestions for
   improvements. Please refer to the current edition of the "Internet
   Official Protocol Standards" (STD 1) for the standardization state
   and status of this protocol. Distribution of this memo is unlimited.

Abstract

   In certain types of multimedia communications, a Session Initiation
   Protocol (SIP) request is distributed to a group of SIP User Agents
   (UAs). The sender sends a single SIP request to a server which
   further distributes the request to the group. This SIP request
   contains a list of Uniform Resource Identifiers (URIs), which
   identify the recipients of the SIP request. This URI list is
   expressed as a resource list XML document. This specification
   defines an XML extension to the XML resource list format that allows
   the sender of the request to qualify a recipient with a copy control
   level similar to the copy control level of existing email systems.

Table of Contents

1. Introduction

RFC 5363 [RFC5363] describes a generic framework for carrying Uniform
Resource Identifier (URI) lists in SIP [RFC3261] messages.
Specifically, the document provides a common framework for specific
implementations of URI-list services, such as conferences initiated
with INVITE requests [RFC5366] or Multiple-recipient MESSAGE requests
[RFC5365].

Common to all URI-list services is the presence of a SIP request that
contains a collection of resources, typically expressed as an XML
resource list [RFC4826]. SIP requests carrying resource lists can
appear either in requests received by the URI-list server, indicating
the list of intended recipients, or in each of the requests that the
URI-list server sends to recipients, indicating the list of
recipients of the same SIP request.

Although the XML resource list [RFC4826] provides a powerful
mechanism for describing a list of resources, there is a need for a
copy control attribute to determine whether a resource is receiving a
SIP request as a primary recipient, a carbon copy, or a blind carbon
copy. This is similar to common email systems, where the sender can
categorize each recipient as a "to", "cc", or "bcc" recipient.

This document addresses this problem by providing an extension to the
XML resource list [RFC4826] that enables the sender to supply a copy
control attribute that labels each recipient as a "to", "cc", or
"bcc" recipient. This attribute indicates whether the recipient is
receiving a primary copy of the SIP request, a carbon copy, or a
blind carbon copy. Additionally, we provide the sender with the
capability of indicating in the URI list that one or more resources
should be anonymized, so that some recipients' URIs are not disclosed
to the other recipients. Instead, these URIs are replaced with
anonymous URIs.

The remainder of this document is organized as follows: Section 2
introduces the terminology used throughout this specification.
Section 3 gives an overview of operation. Section 4 formally defines
an extension to URI lists. The XML schema definition is provided in
Section 5. Section 6 shows examples of the URI lists with the
extensions defined in this document. Section 7 discusses the
implications of carrying URI lists in SIP messages.

[2](#). Terminology

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 [BCP 14](#), [RFC 2119](#)
[[RFC2119](#)] and indicate requirement levels for compliant
implementations.

URI-list service: SIP application service that receives a SIP
   request containing a URI list and sends a similar SIP request to
   each URI in the list.

Intended recipient: The intended final recipient of the request to
   be generated by URI-list service.

Copy control: An attribute assigned by the sender to a URI in an
   XML resource list. Its purpose is to indicate to the recipient
   whether he is getting a primary, carbon, or blind carbon copy of
   the SIP request.

Recipient list or recipient XML resource list: An XML resource list
   containing the list of intended recipients. The sender sets this
   list in the SIP request he sends to the URI-list server.

Recipient-history list or recipient-history XML resource list: An
   XML resource list containing the visible list of recipients (i.e.,
   those non-anonymous non-bcc). The URI-list server creates this
   list, based on the recipient list, and includes it in each of the
   SIP requests it sends to each recipient.

[3](#). Overview of Operation

Figure 1 depicts a general overview of the operation of a URI-list
server. A SIP User Agent Client (UAC) issuer sends a SIP request
(F1) to a URI-list server containing a recipient list. The URI-list
server generates a SIP request to each recipient, according to the
specific SIP method. Each of these SIP requests contains a
recipient-history list that indicates the visible list of recipients
of the SIP request.

```
    +--------+        +---------+         +--------+ +--------+ +--------+
    |SIP UAC |        | URI-list|         |intended| |intended| |intended|
    | issuer |        |  server |         | recip. | | recip. | | recip. |
    |        |        |         |         |   1    | |   2    | |   3    |
    +--------+        +---------+         +--------+ +--------+ +--------+
        |                  |                  |          |          |
        | F1 SIP request   |                  |          |          |
        |   (recipt. list) |                  |          |          |
        | ---------------->|                  |          |          |
        | F2 2xx response  |                  |          |          |
        |<--------------- | F3 SIP request  |          |          |
        |                  | (recp-hist.list)|          |          |
        |                  | --------------->|          |          |
        |                  | F4 SIP request  |          |          |
        |                  | (recp-hist.list)|          |          |
        |                  | ------------------------->|          |
        |                  | F5 SIP request  |          |          |
        |                  | (recp-hist.list)|          |          |
        |                  | ------------------------------------->|
        |                  |   F6 200 OK     |          |          |
        |                  |<--------------- |          |          |
        |                  |   F7 200 OK     |          |          |
        |                  |<------------------------- |          |
        |                  |   F8 200 OK     |          |          |
        |                  |<------------------------------------- |
        |                  |                  |          |          |
        |                  |                  |          |          |
        |                  |                  |          |          |
```
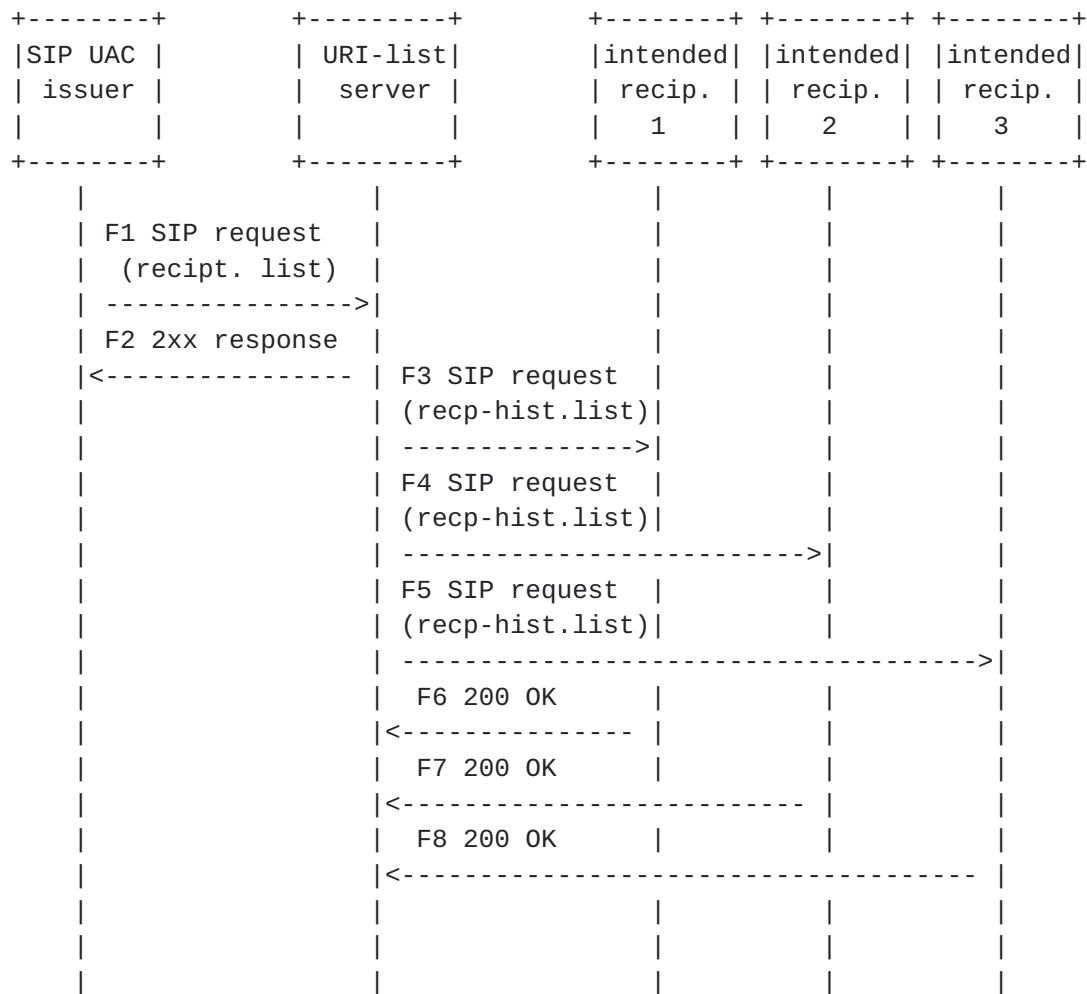
Figure 1: Example of operation

   The URI-list mechanism allows a sender to specify multiple targets
   for a SIP request by including a recipient XML resource list
   [RFC4826] in the body of the SIP request. This recipient list
   includes the target URIs of the SIP request (the actual procedures
   are method specific and outside the scope of this document). Each
   target URI may also be marked with a copy control attribute to
   indicate the copy level in which the recipient is receiving the SIP
   request. This is achieved by the sender qualifying each URI in the
   URI list with a 'copyControl' attribute. The available values of the
   'copyControl' attribute include "to", "cc", and "bcc" (analogous to
   email). This is discussed in greater detail in Section 4. When the
   URI-list server expands the request to each recipient, the URI-list
   server includes a recipient-history XML resource list built upon the
   recipient list received from the sender. The recipient-history XML
   resource list replaces the recipient list in the SIP requests
   generated by the URI-list server towards each recipient. The URI-
   list server copies from the recipient list those targets that are

marked with the "to" and "cc" copy control level, and pastes them in
the recipient-history list. The URI-list server explicitly excludes
from the recipient-history list those URIs marked with a "bcc" copy
control, although it is able to preserve the address of a "bcc"
tagged URI when it matches the URI of the recipient of the SIP
request (this is described later in Section 4). When a recipient
receives the SIP request containing the recipient-history XML
resource list, he is able to determine which other visible recipients
are getting a copy of the SIP request, and whether they are marked
with the "to" or "cc" copy control level. Later, if needed, the
recipient can generate a reply to those visible recipients.

In addition to the 'copyControl' attribute for a URI in an XML
resource list, we define a second boolean attribute called
'anonymize'. The sender of a SIP request can mark a URI in a
recipient XML resource list with the 'anonymize' attribute to
indicate the URI-list server that the URI marked with that attribute
is to be replaced with an anonymous URI in the recipient-history XML
resource list. This provides knowledge to the recipients of a SIP
request of the number of additional visible recipients whose URIs
have not been disclosed.

There are cases when the sender marks several URIs with the
'anonymize' attribute. The URI-list server can group the anonymized
URIs in a single anonymized URI within its copy control level, and
provide a count of the number of anonymized URIs. To support this
scenario, we define a new 'count' attribute to a URI in the
recipient-history XML resource list. It is expected that the 'count'
attribute is only used with anonymous URIs, although syntactically it
is possible to add a 'count' attribute to any URI in any XML resource
list.

Initially, it may be thought that the 'anonymize' attribute overlaps
with the "bcc" value of the 'copyControl' attribute. However, there
are differences between them. If the sender qualifies a URI with a
'copyControl' attribute of "bcc" in the recipient XML resource list,
the URI-list server will typically remove that URI from the
recipient-history XML resource list (unless the URI-list server
decides to preserve a "bcc" marked URI when that URI is itself the
recipient of the SIP request). Recipients of the SIP request will
not notice that one or more extra "bcc" URIs also received the
request. However, if the sender qualifies a URI with the 'anonymize'
attribute in the recipient XML resource list, the URI-list server
will replace the URI with an anonymous one in the recipient-history
list. Recipients of the SIP request will notice that there have been
one or more additional recipients of the same request, but their URIs
are not disclosed.

4. Extension to the Resource List Data Format

   This document defines an extension to the XML resource list data
   format [RFC4826] that allows the sender to indicate a copy control
   attribute that qualifies a recipient with a copy control level. We
   define a new 'copyControl' attribute to the <entry> element of the
   resource list document format [RFC4826]. The 'copyControl' attribute
   has similar semantics to the type of destination address in email
   systems. It can take the values "to", "cc", and "bcc". A "to" value
   of the 'copyControl' attribute indicates that the resource is
   considered a primary recipient of the SIP request. A "cc" value
   indicates that the resource receives a carbon copy of the SIP
   request. A "bcc" value indicates that the resource receives a blind
   carbon copy of the SIP request (i.e., this URI is not disclosed to
   other recipients of the SIP request). The default 'copyControl'
   value is "bcc". That is, the absence of a 'copyControl' attribute
   MUST be treated as if the 'copyControl' was set to "bcc".

   When creating a recipient-history list, URI-list servers use "bcc"
   'copyControl' attributes to route SIP requests. In addition, URI-
   list servers behave similarly to email systems [RFC2822] with respect
   to the treatment of these URIs marked with a "bcc" copy control,
   because they have two ways of treating "bcc" marked URIs. URI-list
   servers MUST treat these "bcc" marked URIs in either of the following
   two ways:

   o URI-list servers MUST remove all URIs marked with a "bcc" copy
      control in recipient-history lists. This mechanism allows URI-
      list servers to send the same recipient-history list to each
      recipient of the SIP request. However, recipients who are tagged
      with "bcc" values are not explicitly informed about it.

   o URI-list servers MUST preserve with a "bcc" copy control in the
      recipient-history list the URI that identifies the recipient (if
      any) and MUST remove the remaining URIs marked with a "bcc" copy
      control. Consequently, each recipient receives a different
      recipient-history list. However, recipients who have been marked
      with a "bcc" copy control are explicitly informed about it.

   Implementations that are able to receive recipient-history lists must
   pay attention to the contents of the list. If the recipient's URI is
   not included in the recipient-history list or if it is included but
   tagged with a "bcc" copy control, then implementations SHOULD prevent
   the user from replying to all the recipients of the SIP request.
   This would allow the non-blind recipients to notice the existence of
   blind recipients of the SIP request.

A new 'anonymize' attribute can be included in a <entry> element of
the resource list document format [RFC4826]. If set to a "true"
value, it provides an indication to the URI-list server for not
disclosing the URI itself in a URI list sent to the recipient, but
instead to anonymize the URI (i.e., making it bogus in the recipient-
history XML resource list). URI-list servers can use URIs tagged
with the 'anonymize' attribute for routing SIP requests, but MUST
convert them to the SIP URI "sip:anonymous@anonymous.invalid" in
recipient-history lists. The default value of the 'anonymize'
attribute is "false".

There are occasions where the URI-list server encounters the same URI
entry duplicated in a resource list, where duplicated URI entries are
tagged with the same or different values of the 'copyControl'
attribute. There are no reasonable usages that justify duplicated
URIs in resource lists; thus, this is considered an error. URI-list
servers should not send duplicated copies of the same SIP request to
the same intended recipient. In case the URI-list server encounters
the same URI entry duplicated in a resource list, it should send at
most a single copy of the request to that intended recipient. For
each set of duplicated URI entries, the URI-list server MUST select
the highest precedence value of the 'copyControl' attribute for the
same intended recipient. The order of precedence of the values of
the 'copyControl' attribute is: "to", "cc", and "bcc". Once the URI-
list server has selected a value for the 'copyControl' attribute of
an intended recipient, the URI-list server can continue processing
the request.

Processing of URIs tagged with a 'copyControl' attribute set to a
"bcc" value has higher precedence over the 'anonymize' attribute.
Thus, if the 'copyControl' of a URI is set to "bcc", the URI-list
server MUST remove that URI from the recipient-history list, and the
'anonymize' attribute will be ignored. Therefore, the 'anonymize'
attribute is only useful for those URIs tagged with a 'copyControl'
of "to" or "cc".

A new 'count' attribute can be also included in an <entry> element of
the resource list document format [RFC4826]. It provides the number
of equal URIs. Typically, recipient lists created by UACs will not
have equal (or duplicate) URI entries; thus, it is not expected to
contain URIs tagged with 'count' attributes. However, recipient-
history lists can contain duplicated anonymized URIs; therefore, it
is expected that recipient-history lists will contain 'count'
attributes. The default value of the 'count' attribute is "1".

   The 'copyControl', 'anonymize', and 'count' attributes SHOULD be
   included as modifiers of any of the child elements included in the
   <list> element of a resource list (e.g., attribute of the <entry> or
   <external> elements).

   [Section 5](#) describes the format of the 'copyControl', 'anonymize', and
   'count' attributes. Implementations according to this specification
   MUST support this XML schema.

   Implementations that receive recipient-history lists must pay
   attention to the contents of the list. If the recipient's URI is not
   included in recipient-history list or if it is included but tagged
   with a "bcc" copy control, then they SHOULD prevent the user from
   replying to all the recipients of the SIP request. This would allow
   the non-blind recipients to notice the existence of blind recipients
   in the original SIP request.

[5](#). XML Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema targetNamespace="urn:ietf:params:xml:ns:copycontrol"
    xmlns="urn:ietf:params:xml:ns:copycontrol"
    xmlns:rls="urn:ietf:params:xml:ns:resource-lists"
    xmlns:xs="http://www.w3.org/2001/XMLSchema"
    elementFormDefault="qualified"
    attributeFormDefault="unqualified">

    <xs:annotation>
      <xs:documentation xml:lang="en">
         Adds the copyControl, anonymize, and count attributes
         to URIs included in a resource list.
      </xs:documentation>
    </xs:annotation>

   <xs:import namespace="urn:ietf:params:xml:ns:resource-lists"
         schemaLocation="urn:ietf:params:xml:schema:resource-lists"/>

    <xs:attribute name="copyControl">
       <xs:simpleType>
          <xs:restriction base="xs:string">
             <xs:enumeration value="to"/>
             <xs:enumeration value="cc"/>
             <xs:enumeration value="bcc"/>
          </xs:restriction>
       </xs:simpleType>
    </xs:attribute>
```

```
      <xs:attribute name="anonymize" type="xs:boolean" default="false"/>
      <xs:attribute name="count" type="xs:nonNegativeInteger"
                                default="1"/>
```

   `</xs:schema>`

      Figure 2: XML schema of the extension to the resource list format

[6](#). **Examples**

   This section shows two examples of URI lists that can be included in
   SIP requests. The first example in Figure 3 shows a recipient list
   that the UAC sends to the URI-list server. This corresponds to a
   list that will be included in the flow F2 in Figure 1. The recipient
   list contains a flat list according to the resource list data format
   specified in [RFC 4826](#) [[RFC4826](#)]. Each resource indicates the copy
   control of a resource with a 'copyControl' attribute. Some of the
   resources are also marked with the 'anonymize' attribute. This
   provides an indication to the URI-list service for not disclosing
   their URIs in a recipient-history list. The last two <entry>
   elements are marked with a 'copyControl' attribute of "bcc". This
   provides an indication to the URI-list server for removing these URIs
   in the recipient-history list.

```
   <?xml version="1.0" encoding="UTF-8"?>
   <resource-lists xmlns="urn:ietf:params:xml:ns:resource-lists"
            xmlns:cp="urn:ietf:params:xml:ns:copycontrol">
     <list>
       <entry uri="sip:bill@example.com" cp:copyControl="to" />
       <entry uri="sip:randy@example.net" cp:copyControl="to"
                                          cp:anonymize="true"/>
       <entry uri="sip:eddy@example.com" cp:copyControl="to"
                                          cp:anonymize="true"/>
       <entry uri="sip:joe@example.org" cp:copyControl="cc" />
       <entry uri="sip:carol@example.net" cp:copyControl="cc"
                                          cp:anonymize="true"/>
       <entry uri="sip:ted@example.net" cp:copyControl="bcc" />
       <entry uri="sip:andy@example.com" cp:copyControl="bcc" />
     </list>
   </resource-lists>
```

      Figure 3: Recipient list sent from the UAC to the URI-list server

   Upon receipt of the SIP request containing the recipient list of
   Figure 3, the URI-list server creates a SIP request to each of the
   URIs listed in the recipient list (so, in our example, it creates 7
   SIP requests). The URI-list server processes the recipient list and
   creates a recipient-history list that is included in each of the

outgoing SIP requests. The process is as follows: the URI-list
server creates a new recipient-history list, based on the recipient
list, but with changes. First, it copies all the URIs (<entry>
elements) marked with the "to" or "cc" 'copyControl' attributes,
which do not contain an 'anonymize' attribute (or when the
'anonymize' attribute is set to "false"). Then all the URIs marked
with a 'copyControl' attribute set to "to" and 'anonymize' attribute
set to "true" are replaced with the SIP anonymous URI
"sip:anonymous@anonymous.invalid". In this entry, the URI-list
server also adds the original value of the 'copyControl' attribute
("to" in our example), and it adds a 'count' attribute containing the
number of anonymous entries in this group ("2" in our example). Then
the URI-list server does the same operation to the URIs tagged with
the 'copyControl' attribute set to "cc" and 'anonymize' attribute set
to "true", adding also the 'count' attribute containing the number of
anonymous attributes in this group ("1" in the example). Last, the
URI-list server removes all URIs marked with the "bcc" 'copyControl'
attribute. The resulting recipient-history list is shown in
Figure 4.

```
<?xml version="1.0" encoding="UTF-8"?>
<resource-lists xmlns="urn:ietf:params:xml:ns:resource-lists"
         xmlns:cp="urn:ietf:params:xml:ns:copycontrol">
  <list>
    <entry uri="sip:bill@example.com" cp:copyControl="to" />
    <entry uri="sip:anonymous@anonymous.invalid" cp:copyControl="to"
                                                 cp:count="2"/>
    <entry uri="sip:joe@example.org" cp:copyControl="cc" />
    <entry uri="sip:anonymous@anonymous.invalid" cp:copyControl="cc"
                                                 cp:count="1"/>
  </list>
</resource-lists>
```

Figure 4: Recipient-history list sent from the URI-list server to
each recipient

7. Carrying URI Lists in SIP

A SIP UAC (User Agent Client) that composes a SIP request can include
a URI list with the extensions specified in this document to indicate
the list of intended recipients. On doing so, as specified in RFC
5363 [RFC5363], the UAC adds a Content-Disposition [RFC2183] header
field set to the value 'recipient-list'. Typically UACs send these
'recipient-list' bodies to URI-list services (this corresponds to
flow F1 in Figure 1). A body whose Content-Disposition type is
'recipient-list' contains a URI list that includes the intended
recipients of the SIP request, something known throughout this

document as a recipient list. The <entry> element in the URI list
MAY also include a 'copyControl' and 'anonymize' attributes, as
specified in Section 4.

To be able to inform intended recipients of who else is receiving a
copy of the SIP request, we define a new mail disposition type to be
included in a Content-Disposition [RFC2183] header field of a SIP
request. The value of this new disposition type is 'recipient-list-
history' and its purpose is to indicate a list of recipients that a
SIP request was sent to, something known throughout this document as
a recipient-history list. A body whose Content-Disposition type is
'recipient-list-history' contains a URI list with the visible
(including anonymized) recipients of the SIP request. The <entry>
element in the URI list MAY also include a 'copyControl' and 'count'
attributes, as specified in Section 4.

On sending a SIP request that contains a recipient-history list, if
the intended recipient does not support this specification, the SIP
request should not fail. In order to ensure successful receipt of
the SIP requests that include 'recipient-list-history' bodies, User
Agents (such as URI-list servers) that build SIP requests with the
Content-Disposition header field set to 'recipient-list-history'
SHOULD add a "handling" parameter [RFC3204] set to "optional".
Otherwise, the SIP request could fail and never be received by the
intended recipient.

Even though "Message Body Handling in SIP" [SIP_BODY] mandates
support for multipart bodies, legacy recipients may not support them.
In such a case, if the request sent by the relay to the recipient
needs to contain another body (e.g., a MESSAGE request carrying a
message in its body), the relay will not be able to use this
extension because the recipient would not be able to process a
multipart body with the original body plus the 'recipient-list-
history' body.

8. Security Considerations

RFC 5363 [RFC5363] discusses issues related to SIP URI-list services.
Implementations of this specification MUST follow the security-
related rules in RFC 5363 [RFC5363]. These rules include opt-in
lists and mandatory authentication and authorization of clients.

User Agent Clients SHOULD NOT hand SIP requests containing URI-list
services to unauthenticated and untrusted parties. This is to avoid
man-in-the-middle attacks or acquiring URI lists for performing spam
attacks.

URI lists may contain private information, such as SIP URIs. It is
therefore not desirable that these URI lists are known by third
parties. Eavesdroppers are able to watch URI lists contained in SIP
requests unless the SIP message is sent over a secured channel, by
using any of the available SIP mechanisms, such as Transport Layer
Security (TLS) [RFC4346], or unless the URI-list body itself is
encrypted with, e.g., S/MIME [RFC3851]. Therefore, it is RECOMMENDED
that URI-list bodies are encrypted with S/MIME [RFC3851] or that the
SIP request is encrypted with TLS [RFC4346] or any other suitable
encryption mechanism.

Note that this URI list does not indicate the actual participants in
the session. It indicates only the URIs invited and that might
accept the request. It does not assert that these parties actually
exist, that they are reachable at the given URI, or that they have
accepted the invitation. No inferences about billing should be made
from this information. It is subject to spoofing by loading the list
with falsified content.

Issuers of SIP request use the "bcc" copy control attribute described
in Section 4 to facilitate sending SIP requests to recipients without
revealing the URIs of one or more of the other recipients.
Mishandling this use of "bcc" copy control has implications for
confidential information that might be revealed, which could
eventually lead to security problems through knowledge of even the
existence of a particular URI. For example, if using the first
method described in Section 4, where the "bcc" tagged URIs are
removed from the recipient-history list, blind recipients have no
explicit indication that they have been sent a blind copy of the SIP
request, except insofar as their URI does not appear in the
recipient-history list. Because of this, one of the blind URIs could
potentially send a reply to all of the shown recipients and
accidentally reveal that the message went to the blind recipient.
When the second method from Section 4 is used, the blind recipient's
address appears in the recipient-history list of a separate copy of
the list. If the "bcc" tagged URI sent contains all of the "bcc"
tagged URIs, all of the "bcc" recipients will be seen by each "bcc"
recipient. Even if a separate message is sent to each "bcc"
recipient with only the individual's URI, implementations still need
to be careful to process replies to the message as per Section 4 so
as not to accidentally reveal the blind recipient to other
recipients.

[9](#). IANA Considerations

   IANA has made registrations according to the following subsections: a
   new disposition type, a new XML namespace, and a new XML schema.

[9.1](#). Disposition Type Registration

   [Section 7](#) defines a new 'recipient-list-history' value of the Mail
   Content Disposition Values registry. This value has been registered
   in the IANA registry of Mail Content Disposition Values with the
   following registration data:

```
+-----------------------+----------------------------+-----------+
| Name                  | Description                | Reference |
+-----------------------+----------------------------+-----------+
| recipient-list-history| the body contains a list of| [RFC5364] |
|                       | URIs that indicates the    |           |
|                       | recipients of the request  |           |
+-----------------------+----------------------------+-----------+
```

      Table 1: Registration of the 'recipient-list-history' Mail Content
                          Disposition Value

[9.2](#). XML Namespace Registration

   This section registers a new XML namespace in the IANA XML registry,
   as per the guidelines in [RFC 3688](#) [[RFC3688](#)].

   URI: The URI for this namespace is urn:ietf:params:xml:ns:copycontrol

   Registrant Contact: IETF SIPPING working group (sipping@ietf.org),
   Miguel Garcia-Martin (miguel.a.garcia@ericsson.com).

   XML:

```
      BEGIN
      <?xml version="1.0"?>
      <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML Basic 1.0//EN"
        "http://www.w3.org/TR/xhtml-basic/xhtml-basic10.dtd">
      <html xmlns="http://www.w3.org/1999/xhtml">
      <head>
        <meta http-equiv="content-type"
          content="text/html;charset=iso-8859-1"/>
        <title>Copy Control Namespace</title>
      </head>
      <body>
        <h1>Namespace for the Copy Control Attribute Extension
        in Resource Lists</h1>
```

```
        <h2>urn:ietf:params:xml:ns:copycontrol</h2>
        <p>See <a href="http://www.rfc-editor.org/rfc/rfc5364.txt">
            RFC5364</a>.</p>
    </body>
    </html>
    END
```

9.3. XML Schema Registration

This section registers a new XML schema in the IANA XML registry per
the procedures in RFC 3688 [RFC3688].

URI: urn:ietf:params:xml:schema:copycontrol

Registrant Contact: IETF SIPPING working group (sipping@ietf.org),
Miguel Garcia-Martin (miguel.a.garcia@ericsson.com).

The XML for this schema can be found as the sole content of
Section 5.

10. Acknowledgments

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