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Conference Focus Indicating CCMP Support
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Abstract

The Centralized Conferencing Manipulation Protocol document defines away for a client to discover a conference control server that supports CCMP. However, it does not define a way for a client involved in a conference to determine if the conference focus supports CCMP. This information would allow a CCMP-enabled client that joins a conference using SIP to also register for the XCON conference event package and take advantage of CCMP operations on the conference.

This draft describes few options to address the above limitation with the pros and cons for each approach.

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1 Introduction

[RFC 5239](#) defines a framework for Centralized Conferencing, which allows participants to exchange media in a centralized unicast conference. The framework also outlines a set of conferencing protocols for building advanced conferencing applications.

The Centralized Conferencing Manipulation Protocol (CCMP) allows authenticated and authorized users to create, manipulate and delete conference objects. Operations on conferences include adding and removing participants, changing their roles, as well as adding and removing media streams and associated end points.

The Centralized Conferencing Manipulation Protocol (CCMP) draft defines a way for a client to determine a conference control server that supports CCMP, but it does not define a way for a client to determine if a conference focus supports CCMP.

This draft describes few options to address the above limitation with the pros and cons for each approach.

1.1 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 [RFC 2119](#) [[RFC2119](#)].

2 Possible Solutions

2.1 Feature Tag

This approach defines a feature parameter 'ccmp' to express that a SIP dialog belongs to a conference that supports CCMP. The use of feature parameters in Contact header fields to describe the characteristics and capabilities of a UA is described in the User Agent Capabilities document.

The focus behavior regarding the handling of the 'ccmp' feature is the same as the handling of the 'isfocus' feature parameter. In session establishment, a focus MUST include the 'ccmp' feature parameter in the Contact header field unless the focus wishes to hide the fact that it is a focus.

The pros of this approach is a one step discovery of the focus and its ccmp support, and the fact that it can be used in response to an OPTIONS request, and that it enables the discovery of the ccmp capability by any network element that does not need the conference event package. The cons is the definition of a new feature parameter.

2.2 OPTIONS

This approach requires the client to send an OPTIONS request to the conference focus to determine if the conference supports CCMP.

If the feature tag approach is used, then the 200 OK response to the OPTIONS request MUST include the ccmp feature parameter in the Contact header.

Another option is return the Call-Info header with an XCON-URI in the 200 OK .

The pros of this approach is that it is consistent with SIP in terms of the mechanism by which a UA determines the capabilities of a SIP intermediary, and that it enables the discovery of the ccmp capability by any network element that does not need the conference event package. The cons is that it requires an extra step to determine that a conference focus supports CCMP.

2.3 Conference Event Package

There are two options that rely on the SIP conference event package defined in [RFC 4575](#):

2.3.1 Service URI purpose

Define an additional URI 'purpose' of 'ccmp' associated with a 'service-uris' element in the SIP conferencing event package. The XCON-URI for the conference is included in the 'uri' element, per the following example:

```
<service-uris>
  <entry>
    <uri>XCON:conf1@example.com</uri>
    <purpose>ccmp</purpose>
  </entry>
</service-uris>
```

2.3.2 Conference URI purpose

Define an additional URI 'purpose' of 'ccmp' associated with a 'confs-uris' element in the SIP conferencing event package.

ccmp: Indicates that the conference focus represented by this URI supports ccmp, which allows a client to use the CCMP protocol to manipulate the conference. This URI MUST be an XCON-URI as defined in the xcon-data-model.

```
<conf-uris>
  <entry>
    <uri>XCON:conf1@example.com</uri>
    <display-text>whatever</display-text>
    <purpose>ccmp</purpose>
  </entry>
</conf-uris>
```

The pro of the SIP conference event package options is the use of an existing mechanism for extending the <purpose> field of the <service-uris> or <conf-uris> elements. The con is the requirement that the client register for the conference event package. However, given that clients that want to take advantage of CCMP would most likely register for the conference event packages.

3 Security Considerations

These proposal introduce no additional security considerations beyond those which are applicable to each of the mechanisms described herein.

4 IANA Considerations

<IANA considerations text>

5 Acknowledgments

The authers would like to thanks Alan Johnston and Robert Sparks for their careful review and feedback.

6 References

6.1 Normative References

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6.2 Informative References

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