XEP-0338: Jingle Grouping Framework

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Draft	Standards Track	NOT_YET_ASSIGNED

This specification provides an XML mapping for translating the RFC 5888 SDP Grouping Framework to Jingle

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Contents

1 Introduction

[RFC 5888](#) [1] defines a framework to group SDP 'm' lines for different purposes. A mapping to Jingle as an extension to [Jingle (XEP-0166)](#) [2] is defined in this document.

It is anticipated that the primary use of this is with the [draft-ietf-mmusic-sdp-bundle-negotiation](#) [3] framework used in WebRTC.

2 Mapping to Session Description Protocol

The SDP format defined in [RFC 5888](#) [4] is shown below.

```
a=group:semantics identification-tag
```

An example follows.

```
a=group:LS voice webcam
```

This SDP attribute is translated to Jingle as a <group/> element qualified by the 'urn:xmpp:jingle:apps:grouping:0' namespace, as shown below. The semantics is mapped to a 'semantics' attribute. The identification-tags are mapped to content elements whose name attribute is set to the identification-tag.

```
<group xmlns='urn:xmpp:jingle:apps:grouping:0' semantics='semantics'>
  <content name='identification-tag 1'/>
  <content name='identification-tag 2'/>
</group>
```

An example follows.

```
<group xmlns='urn:xmpp:jingle:apps:grouping:0' semantics='LS'>
  <content name='voice'/>
  <content name='webcam'/>
</group>
```

The <group/> element is included as child of the <jingle/> element.

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[1] RFC 5888: The Session Description Protocol (SDP) Grouping Framework <http://tools.ietf.org/html/rfc5888>.

[2] XEP-0166: Jingle <https://xmpp.org/extensions/xep-0166.html>.

[3] Negotiating Media Multiplexing Using the Session Description Protocol (SDP) <https://datatracker.ietf.org/doc/draft-ietf-mmusic-sdp-bundle-negotiation/>. Work in progress.

[4] RFC 5888: The Session Description Protocol (SDP) Grouping Framework <http://tools.ietf.org/html/rfc5888>.

```
<iq from='romeo@montague.lit/orchard'
    id='rg6s5134'
    to='juliet@capulet.lit/balcony'
    type='set'>
  <jingle xmlns='urn:xmpp:jingle:1'
          action='session-initiate'
          initiator='romeo@montague.lit/orchard'
          sid='a73sjjvkla37jfea'>
    <group xmlns='urn:xmpp:jingle:apps:grouping:0' semantics='BUNDLE'>
      <content name='voice'/>
      <content name='webcam'/>
    </group>
    <content creator='initiator' name='voice'>
      [ ... ]
    </content>
    <content creator='initiator' name='webcam'>
      [ ... ]
    </content>
  </jingle>
</iq>
```

Note: the identification-tags correspond to the <content/> 'name' attributes. These in turn map to the 'mid' attribute in SDP.

3 Determining Support

If an entity supports the grouping framework described in RFC 5888 [5], it MUST advertise that fact in its responses to Service Discovery (XEP-0030) [6] information ("disco#info") requests by returning a feature of 'urn:ietf:rfc:5888':

Listing 1: A disco#info query

```
<iq type='get'
    from='calvin@usrobots.lit/lab'
    to='herbie@usrobots.lit/home'
    id='disco1'>
  <query xmlns='http://jabber.org/protocol/disco#info'/>
</iq>
```

Listing 2: A disco#info response

```
<iq type='result'
    from='herbie@usrobots.lit/home'
```

[5]RFC 5888: The Session Description Protocol (SDP) Grouping Framework <http://tools.ietf.org/html/rfc5888>.

[6]XEP-0030: Service Discovery <https://xmpp.org/extensions/xep-0030.html>.

```
    to='calvin@usrobots.lit/lab'
    id='disco1'>
  <query xmlns='http://jabber.org/protocol/disco#info'>
    <feature var='urn:xmpp:jingle:1'/>
    <feature var='urn:ietf:rfc:5888'/>
  </query>
</iq>
```

In order for an application to determine whether an entity supports this protocol, where possible it SHOULD use the dynamic, presence-based profile of service discovery defined in Entity Capabilities (XEP-0115) [7]. However, if an application has not received entity capabilities information from an entity, it SHOULD use explicit service discovery instead.

4 Acknowledgements

Thanks to Emil Ivov and Lance Stout for their feedback.
The XML format for this specification originates from libjingle[8].

5 Security Considerations

This document introduces no additional security considerations above and beyond those defined in the documents on which it depends.

6 IANA Considerations

This document requires no interaction with the Internet Assigned Numbers Authority (IANA) [9].

7 XMPP Registrar Considerations

7.1 Protocol Namespaces

This specification defines the following XML namespace:

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[7]XEP-0115: Entity Capabilities <https://xmpp.org/extensions/xep-0115.html>.

[8]libjingle is now part of the WebRTC Native Code Package available from webrtc.org.

[9]The Internet Assigned Numbers Authority (IANA) is the central coordinator for the assignment of unique parameter values for Internet protocols, such as port numbers and URI schemes. For further information, see <http://www.iana.org/>.

- urn:xmpp:jingle:apps:grouping:0

The XMPP Registrar [10] includes the foregoing namespace to the registry located at
<https://xmpp.org/registrar/namespaces.html>, as described in Section 4 of XMPP
Registrar Function (XEP-0053) [11].

7.2 Protocol Versioning

If the protocol defined in this specification undergoes a revision that is not fully backwards-
compatible with an older version, the XMPP Registrar shall increment the protocol version
number found at the end of the XML namespaces defined herein, as described in Section 4 of
XEP-0053.

8 XML Schema

TODO

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[10]The XMPP Registrar maintains a list of reserved protocol namespaces as well as registries of parameters used in
    the context of XMPP extension protocols approved by the XMPP Standards Foundation. For further informa-
    tion, see <https://xmpp.org/registrar/>.
[11]XEP-0053: XMPP Registrar Function <https://xmpp.org/extensions/xep-0053.html>.