NON-CLUE
INTEROPERABILITY

Christer Holmberg
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WHAT IS NON-CLUE?

”A device that has not implemented, or does not want to use, the CLUE protocol.”
PURPOSE

› In order for providers to prepare communication between CLUE enabled devices and non-CLUE devices, they need to know:
  – What type of initial Offer they can expect from a CLUE enabled device
  – What type of initial Offer they can expect a CLUE enabled device to understand

› Even when communicating with a non-CLUE device, a CLUE enabled device should be able to provide a good, high-quality, video experience.
  – Must support the negotiating of critical information elements using SDP (or SIP), as CLUE cannot be used.
Define different media “building blocks”, each with different purpose and capabilities

Usage of each building block is OPTIONAL
- A CLUE enabled device chooses among the building blocks when sending an initial Offer
  - No matter whether answerer is CLUE enabled or not
- A non-CLUE device is expected to choose among the building blocks when sending an initial Offer towards a CLUE enabled device

Does not prevent from offering additional media
## NON-CLUE MEDIA TABLE

<table>
<thead>
<tr>
<th>MEDIA CONTENT</th>
<th>SDP MEDIA TYPE</th>
<th>PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main audio</strong> (nonCLUE audio)</td>
<td>m=audio</td>
<td>- Bi-directional</td>
</tr>
<tr>
<td><strong>Main video</strong> (nonCLUE video)</td>
<td>m=video</td>
<td>- Bi-directional, RTP/AVFP, RTCP, Full Intra Request (FIR), Codec-Control Messages (CCM), Temporary Maximum Media Bit-rate Request (TMMBR), Temporary Maximum Media Bit-rate Notification (TMMBN)</td>
</tr>
<tr>
<td>Presentation/slide sharing video</td>
<td>m=video, a=content:slides</td>
<td>Low frame rate &amp; high resolution</td>
</tr>
<tr>
<td><strong>CLUE Data Channel</strong></td>
<td>m=application</td>
<td></td>
</tr>
</tbody>
</table>
EX: CLUE-NONCLUE

**OFFER (Initial non-CLUE):**
m=audio c_p1
m=video c_p2
m=video c_p3
m=application c_p4

**ANSWER (Initial non-CLUE):**
m=audio n_p1
m=video n_p2
m=video n_p3
m=application 0
EX: CLUE-CLUE

CLUE

OFFER (Initial non-CLUE):
m=audio c_p1
m=video c_p2
m=video c_p3
m=application c_p4

ANSWER (Initial CLUE):
m=audio 0
m=video 0
m=video 0
m=application c_p4

CLUE Exchange

CLUE

OFFER (CLUE):
m=audio 0
m=video 0
m=video 0
m=application c_p4
m=audio_clue c_p5
m=audio_clue c_p6
m=video_clue c_p7
m=video_clue c_p8
NOTHING ELSE

THANK YOU FOR LISTENING!