Network Working Group
Internet-Draft
Intended status: Standards Track
Expires: February 25, 2014

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August 24, 2013

A Session Initiation Protocol (SIP) usage for Trickle ICE
draft-ivov-dispatch-sdpfrag-01

Abstract

This document registers the application/sdpfrag Multipurpose Internet Mail Extensions (MIME) media type. This type is similar to application/sdp, but allows certain subsets of well formed session descriptions, as per the Session Description Protocol (SDP), to be represented instead of requiring a complete SDP session description. The "a=candidate" lines that are incrementally exchanged between Trickle ICE agents are one example usage of the application/sdpfrag.

Status of This Memo

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1. Introduction

The application/sdp MIME media type defined in [RFC4566] carries an entire well formed SDP session description. Yet, creating such a description may sometimes require a relatively long time as, for example, would be the case when the Interactive Connectivity Establishment (ICE) [RFC5245] protocol is in use and candidates need to be acquire in different, often time consuming methods. Some applications may therefore choose to use mechanisms like Trickle ICE [I-D.ivov-mmusic-trickle-ice] that would allow them to send initial session descriptions with only readily available information and then exchange candidates only when they become available.

This document does NOT provide a mechanism to segment an SDP session description into multiple pieces for separate transport and later reassemble.

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 [RFC2119].

3. Definition: application/sdpfrag

A valid application/sdpfrag part is one that could be obtained by starting with some valid SDP session description and deleting any number of lines.

[TODO maybe mention that we can only do frags with the declarative parts of an SDP offer/answer and not with the ones used in negotiations.]

[TODO maybe explain how attributes can be linked to an m line or at least say that this will be defined by usages.]

4. Security Considerations

[TODO]

5. Acknowledgements

[TODO]

6. References

6.1. Normative References

[I-D.ivov-mmusic-trickle-ice]
Ivov, E., Rescorla, E., and J. Uberti, "Trickle ICE: Incremental Provisioning of Candidates for the Interactive Connectivity Establishment (ICE) Protocol", draft-ivov-mmusic-trickle-ice-01 (work in progress), March 2013.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.

[RFC3264] Rosenberg, J. and H. Schulzrinne, "An Offer/Answer Model with Session Description Protocol (SDP)", RFC 3264, June 2002.

[RFC4566] Handley, M., Jacobson, V., and C. Perkins, "SDP: Session Description Protocol", RFC 4566, July 2006.

[RFC5245] Rosenberg, J., "Interactive Connectivity Establishment (ICE): A Protocol for Network Address Translator (NAT) Traversal for Offer/Answer Protocols", RFC 5245, April 2010.

6.2. Informative References

[RFC1918] Rekhter, Y., Moskowitz, R., Karrenberg, D., Groot, G., and E. Lear, "Address Allocation for Private Internets", BCP 5, RFC 1918, February 1996.

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