

DRINKS - Data for Reachability of
Inter/tra-Network SIP
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Potential Elements of Session Establishment Data
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Abstract

This document provides a list of potential Session Establishment Data Elements in the Scope of SPEERMINT/DRINKS work. The list is provided

to seek input from the community, and with the intent to aid in the definition of DRINKS requirements/protocols.

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1. Change Log

[Note to editors: This section is to be removed before publication - XML source available on request]

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o initial revision

2. Introduction

Both the SPEERMINT as well as the DRINKS working group are using the term "Session Establishment Data" (SED). While the SPEERMINT efforts are expected to define the usage of such data, the DRINKS working group is to develop a provisioning protocol for SED.

The purpose of this document is to provide a list of potential data elements that might need to be necessary in SED to establish a session between two SIP Service Providers (SSPs). The document is currently in the stage of a "placeholder". Further work could include narrowing down (or even extending) the list of potential elements, concise definition of each element and its relation to other elements, assessment whether or not the element is to be included in a DRINKS provisioning protocol, and where it belongs in terms of the LUF/LRF border.

The list is by no means final, but rather a very rough first draft.

3. 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](#)].

The term "Session Establishment Data" is defined in SPEERMINT Terminology as follows:

Session Establishment Data, or SED, is the data used to route a call to the next hop associated with the called domain's ingress point. A domain's ingress point might for example be the location derived from various types of DNS records (NAPTR, SRV, and A record) [1] that resulted from the resolution of the SIP URI.

More specifically, the SED is the set of parameters that the outgoing SBEs need to complete the call, and may include:

- . A destination SIP URI
- . A SIP proxy or ingress SBE to send the INVITE to, including
 - o Fully Qualified Domain Name (FQDN)
 - o Port
 - o Transport Protocol (UDP [9], TCP [10], and TLS [11])
- . Security Parameters, including
 - o TLS certificate to use
 - o TLS certificate to expect
 - o TLS certificate verification setting
- . Optional resource control parameters such as
 - o Limits on the total number of call initiations to a peer
 - o Limits on SIP transactions per second

The DRINKS use cases document defines a 'SED Record' as follows:

SED Record: A SED Record contains much of the session establishment data or a 'redirect' to another registry where the session establishment data can be discovered. SED Records types supported are NAPTRs, CNAME, DNAME, and NS Records.

4. List of Potential SED Elements

The following list is an (currently unordered) list of data elements that might be included in Session Establishment Data (from the perspective of a session establishment itself). Note that some elements might be irrelevant, this list is intended to be a "sketchpad" for everything that theoretically could be included/required to set up a session.

- o Identifier of originating end user: For example, SIP URI of the originating user
- o Identifier of terminating end user: For example, Telephone number of the terminating end user
- o Representation of Telephone numbers: 'sip:' or 'tel:' URI
- o IP Address / Family of next hop
- o Port Number of next hop
- o Preferred egress address/family Signaling: Where does the next hop expect traffic to egress from
- o Preferred egress address/family Media: For example, for building ACLs on the receiving end
- o Preferred egress port (range) Signaling
- o Preferred egress port (range) Media
- o Media relay required vs no Media handling necessary
- o potential address / port range of Media destination
- o SRV handling for failover
- o Type of transport: UDP/TCP
- o Packet size limit of UDP
- o QoS tags Signaling
- o QoS tags Media
- o Transport Layer Security: none, TLS/SSL/DTLS, IPsec
- o Certificate to send
- o Certificate to expect
- o Certificate verification policy
- o Sender Media preference: For example, a codec list
- o Receiver Media preference: For example, a codec list
- o Media Security: mandatory/optional, SRTP, transport layer
- o Retargeting or Rerouting?
- o Use of SIP P-Asserted-Identity
- o Use of SIP Privacy
- o Use of SIP Identity
- o SIP body encryption / signature

5. IANA Considerations

At this point, this document has no considerations for IANA

6. Security Considerations

Right now, this document does only provide an unsorted list of potential SED elements. Security considerations might need to be addressed in later stages of this document

7. Acknowledgements

Want to see your name here? Contribute! :-)

8. References

8.1. Normative References

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

8.2. Informative References

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