Potential Elements of Session Establishment Data
draft-mayrhofer-drinks-sed-elements-00

Status of this Memo

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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]

   draft-mayrhofer-drinks-sed-elements-00
   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, asessment 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.
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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
   "skratchpad" 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 Receipient 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 laster 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

Author's Address

    Alexander Mayrhofer
    nic.at GmbH
    Karlsplatz 1/9
    Wien A-1010
    Austria

    Phone: +43 1 5056416 34
    Email: alexander.mayrhofer@nic.at
    URI: http://www.nic.at/