                   P-Access-Network-Info ABNF Update

Abstract

   This document updates RFC 7315, by modifying the extension-access-
   info part of the P-Access-Network-Info header field Augmented Backus-
   Naur Form (ABNF), and by adding the following 'access-info' header
   field parameter values to the list of 'access-info' header field
   parameter values in the ABNF: 'operator-specific-GI' and
   'utran-sai-3gpp'. The values are defined in the ABNF but are not
   included in the list.

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1. Introduction

   [RFC7315] defines the Session Initiation Protocol (SIP) [RFC3261]
   P-Access-Network-Info header field.

   The header field syntax contains an 'access-info' header field
   parameter, with a set of pre-defined values. Most pre-defined values
   follow the 'generic-param' rule [RFC3261]. However, currently the
   Augmented Backus-Naur Form (ABNF) [RFC5234] in [RFC7315] requires new
   values to follow the 'gen-value' rule [RFC3261], which is more
   restrictive than 'generic-param'. There is no justification for the
   restriction, and new values have already been defined following the
   'generic-param' rule.

   The ABNF also defines the following 'access-info' header field
   parameter values: 'operator-specific-GI' and 'utran-sai-3gpp'.
   However, the values are not included in the list of 'access-info'
   values.

   This document updates Section 5.4 of [RFC7315], by modifying the
   extension-access-info part of the P-Access-Network-Info header field
   ABNF.

As the P-Access-Network-Info header field is mainly used in networks
defined by the 3rd-Generation Partnership Project (3GPP), where new
values following the 'generic-param' rule have been defined
[TS.3GPP.24.229], the update is not considered to cause issues with
backward compatibility.

2. Update to RFC 7315

This section updates the ABNF defined in Section 5.4 of RFC 7315, as
described below:

Old syntax:

```
access-info            = cgi-3gpp / utran-cell-id-3gpp /
                         dsl-location / i-wlan-node-id /
                         ci-3gpp2 / eth-location /
                         ci-3gpp2-femto / fiber-location /
                         np / gstn-location /local-time-zone /
                         dvb-rcs2-node-id / extension-access-info
np                     = "network-provided"
extension-access-info  = gen-value
```

New syntax:

```
access-info            = cgi-3gpp / utran-cell-id-3gpp /
                         dsl-location / i-wlan-node-id /
                         ci-3gpp2 / eth-location /
                         ci-3gpp2-femto / fiber-location /
                         np / gstn-location /local-time-zone /
                         dvb-rcs2-node-id / operator-specific-GI /
                         utran-sai-3gpp / extension-access-info
np                     = "network-provided"
extension-access-info  = generic-param
```

3. Security Considerations

The security considerations for the P-Access-Network-Info header
field are defined in [RFC7315]. The ABNF update defined in this
document does not impact the security considerations.

4. Normative References

[RFC3261]   Rosenberg, J., Schulzrinne, H., Camarillo, G., Johnston,
            A., Peterson, J., Sparks, R., Handley, M., and E.
            Schooler, "SIP: Session Initiation Protocol", RFC 3261,
            DOI 10.17487/RFC3261, June 2002,
            <http://www.rfc-editor.org/info/rfc3261>.

[RFC5234]   Crocker, D., Ed. and P. Overell, "Augmented BNF for Syntax
            Specifications: ABNF", STD 68, RFC 5234,
            DOI 10.17487/RFC5234, January 2008,
            <http://www.rfc-editor.org/info/rfc5234>.

[RFC7315]   Jesske, R., Drage, K., and C. Holmberg, "Private Header
            (P-Header) Extensions to the Session Initiation Protocol
            (SIP) for the 3GPP", RFC 7315, DOI 10.17487/RFC7315, July
            2014, <http://www.rfc-editor.org/info/rfc7315>.

[TS.3GPP.24.229]
            3GPP, "IP multimedia call control protocol based on
            Session Initiation Protocol (SIP) and Session Description
            Protocol (SDP); Stage 3", 3GPP TS 24.229 13.5.1, March
            2016, <http://www.3gpp.org/ftp/Specs/html-info/24229.htm>.

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