draft-bertz-dime-rfc4006bis

IETF96

Editors:
Lyle T. Bertz, Lyle.T.Bertz@sprint.com
David Dolson, ddolson@sandvine.com
Yuval Lifshitz, ylifshitz@sandvine.com

Topics

1. Already fixed in draft-bertz-dime-rfc4006bis-01
2. Filter-Rule
3. G-S-U < U-S-U
4. Graceful Degradation on Credit Limit
5. IMEI and IMEISV
6. IPv6 Redirect Address

Already fixed in draft-bertz-dime-rfc4006bis-01

1. Updated references to 6733 from 3588
2. Updated references to 7155 from 4005
3. Updated references to "TLS/TCP, DTLS/SCTP or IPSec" from "IPSec or TLS"
4. Update AVP per Errata ID 3329
5. Update IPv6 reference
6. Update 3GPP charging reference and IMEI
7. Remove "Encr" and "SHOULD NOT" columns from AVP tables in page 56-57
8. Add an appendix for changes relative to RFC4006

Filter-Rule

- Enhance the action in F-U-I with the new Filter-Rule AVP from RFC5777 in order to support QoS based Rules for F-U-I
- Problem: current definition does not support adding more AVPs
- Options to discuss:
  1. Add the new AVP into F-U-I and break backward compatibility
  2. Don't make the change
  3. Add AVP outside of F-U-I ("side-car" AVP) that must be enforced if present
  4. Add new F-U-I AVP to include the new Filter-Rule

G-S-U < U-S-U

- Section 5.3: *"... a new Credit-Control-Request MUST be sent to the credit-control server when the credit reservation has been wholly consumed, or upon expiration of the Validity-Time."*
- In practice, a credit reservation is seldom precisely consumed. When the reservation is exceeded, it is exceeded by a non-zero amount
- The standard doesn't explicitly say whether the client may report a USU greater than the earlier GSU, but it seems to be implicitly allowed
- Proposal is for adding clarifying paragraph to section 5.3

Graceful Termination on Credit Limit

- Currently graceful termination process exists for initial interrogation only
- May be needed in consequent interrogations as well. For example:
  - when the reported U-S-U of another service exceeds the G-S-U
  - When direct debiting depleted the account
- Reply with DIAMETER_CREDIT_LIMIT_REACHED does not allow for graceful service termination - e.g. no VT, action etc.
- 3GPP TS 32.299 allow for zero G-S-U as an indication that the termination process should start immediately, without further interrogation
- Proposal is to add that in section 5.6.1, 5.6.2 and 5.6.3

IMEI and IMEISV

- Currently only IMEISV is mentioned in the list of User-Equipment-Info-Type list
- Options to discuss:
  1. Says that same type is used for both options and derive whether it is IMEI or IMEISV according to length (15 or 16 digits)
  2. Add a new type to explicitly support IMEI

IPv6 Redirect Address

- Section 8.38, the paragraph on Redirect-Address-Type AVP: *"The address is a text representation of the address in either the preferred or alternate text form [IPv6Addr]."*
- [IPv6Addr] refers to obsolete RFC3513. We will change this to RFC4291
- But the above wording refers to two formats, "preferred" and "alternate", whereas both RFC3513 and RFC4291 refer to *three* formats:
    - "The preferred form is x:x:x:x:x:x:x:x,…"
    - "…a special syntax is available to compress the zeros…"
    - "An alternative form that is sometimes more convenient when dealing with a mixed environment of IPv4 and IPv6 nodes is x:x:x:x:x:x:d.d.d.d,…"
- Do we want to mention the 3 option in RFC4006bis? Support only 2 formats?