Session Timer Glare Handling

IETF#103
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draft-ietf-sipcore-sessiontimer-race
https://github.com/cdh4u/draft-sessiontimer-race
(2) WHAT IS IT ABOUT?

• RFC is unclear on simultaneously session timer negotiations taking place
  • UPDATE request sent while INVITE transaction is still active
  • Both UPDATE and INVITE contain session timer parameters
  • If parameters do not match, which parameters are applied?

• Creating problems in deployed networks
(3) SHOULD I READ THE DRAFT?

• The current version (-02) of the draft is NOT aligned with the recent discussions and suggestions

• A new version of the draft will be submitted once we have agreed on an approach (at least on a high-level) on how to solve the glare issue

• Exactly how the modifications will be documented will be decided once we have a more clear picture of the amount of modifications needed
WHAT HAS HAPPENED SINCE IETF#102?

Not much - until the last few weeks
  • E-mail discussions
  • GitHub issue tracker
  • Pre-103 phone call
(5) ANY WORKING ASSUMPTIONS?

• Focus on modifications for fixing the session timer glare issue.

• Non-related bugs can be fixed.

• We are NOT going to do modifications just because someone things (perhaps rightfully so) that it would improve the session timer mechanism in general.

• There is no solution that will make every implementation standards compliant without any modification.

• Approach is to specify procedures that will fix the problem for new/modified implementations, but also how to deal with old/non-modified implementations.
(6) UAC

• If a UA inserts S-E (Session-Expires header field) in an INVITE the UA must insert the same S-E in any UPDATE request that it sends while the INVITE transaction is ongoing

• If a UA has conflicting S-E information once the INVITE and UPDATE transactions have completed, it must send a new UPDATE with S-E, in order to "sync" the S-E state among all entities
(7) PROXY

• Request Handling
  • Must rejects the S-E if the expiration value is too short
    • No matter if the request contains Supported:timer or not
  • If the proxy inserts/forwards/modifies S-E in an INVITE request the proxy must identically insert/forwards/modify the same S-E in any UPDATE request
    • Might insert another S-E if it knows that there is no active INVITE transaction

• Response Handling
  • If response contains S-E, the proxy must not modify it
  • If response does not contain S-E, the proxy may insert S-E if it remembers that the associated request indicated support of the session timer (Supported:timer)
(8) UAS

• If received request contains S-E:
  • The UAS copies the S-E of the request into the response
  • The UAS must not reduce the S-E expiration value in the response
    • If the UAS wants to change the S-E value, it later sends a request by its own

• If received request does not contain S-E
  • If the request contains Supported:timer, the UAS might include S-E in the response
(9) OPEN ISSUES

• **Non-offer UPDATE request glare situations**
  • Not covered by RFC 3311 (UPDATE method) or RFC 6141 (target-refresh handling)
  • UA might send non-offer UPDATE session refresh request when peer sends an UPDATE with an offer

• **If UAS does not support session timer, but the UAC does, the proxy can insert S-E only if UAC indicated refresher=uac**
  • Currently the text does not mention the refresher value

• **Meaning of ”initial session refresh request”**

• May not directly/uniquelly related to the session glare issue, but probably worth fixing/clarifying
Thank You For Listening!