

# Indication of support for keep- alive

draft-holmberg-sip-keep-03

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# PROBLEM

- [draft-ietf-sip-outbound] defines two functionally separated mechanisms:
  - Multiple registration flow mechanism
  - SIP signalling keep-alive mechanism
- Not possible for SIP entity to indicate explicit support of the keep-alive mechanism
  - Only possible to indicate support of Outbound in general, which includes both mechanisms

(Possible to use only keep-alive mechanism between UA and edge proxy if registrar does not support Outbound)

# PREVIOUSLY IN IETF

- Consensus not to add explicit keep-alive indication (e.g. using the keep parameter which once was part of Outbound) to [draft-ietf-sip-outbound].
- Statement that such indication should be specified in a separate draft
- I thought we had made a decision to start working on such indication, but obviously not...

# NUTSHELL

- Allows SIP entities to indicate support of, and use, the NAT keep-alive mechanisms defined in [draft-ietf-sip-outbound]
- Hacks, e.g. based on frequent re-registrations (very common today), can be avoided if it is known that keep-alives will be sent

# USE CASES (1/2):

## Outbound not supported

- **#1: Outbound not supported**
  - Outbound is not – for whatever reason – supported/implemented, but still requirement to negotiate keep-alives
- **#2: Non-registration emergency calls**
  - Emergency call made by non-registered user
  - Keep-alive needed during the session
  - Outbound cannot be used even if supported (Outbound requires registration)
  - Requirement in 3GPP

# USE CASES (2/2):

## Outbound not supported

- **#3: Dialog initiated outbound flows**
  - Outbound flow created during dialog establishment
  - [draft-ietf-sip-outbound] specifies that keep-alives must be separately negotiated for such flows
- **#4: Intermediate-to-intermediate**
  - "Heartbeat" type-of function between intermediates during a session
    - Not necessarily for NAT keep-alive purpose
  - Useful for SIP provider peering, proxy-to-PSTN-GW, etc.

# PROPOSED REQUIREMENTS

**REQ 1:** It MUST be possible for a SIP entity acting as a UAC to indicate, during registration and session establishment, support of the keep-alive techniques defined [draft-ietf-sip-outbound] towards the next hop, if only the keep-alive part of [draft-ietf-sip-outbound] is used for the registration or session

**REQ 2:** It MUST be possible for a SIP entity acting as a UAS to indicate, during registration and session establishment, support of the keep-alive techniques defined [I-D.ietf-sip-outbound] towards the previous hop, if only the keep-alive part of [draft-ietf-sip-outbound] is used for the registration or session

# PROPOSAL

- Agree on the requirements, and start work on a technical solution



**THANK YOU!**