SIP INFO Event Framework
(draft-kaplan-sip-info-events-00)

Hadriel Kaplan
Christer Holmberg

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BACKGROUND

• The discussion on **when** to use INFO, **how** to use INFO, and **whether** to use INFO at all, has been around since the very early days of the protocol
• Different opinions on what RFC2976 really says
• INFO is out there
• We have identified the following options:
  – We don’t care
  – We only allow for ISUP
    • We say it can only be used for transport of ISUP information
  – We fix

↓ Scope of this presentation
ABSTRACT

• The document defines a proposed solution for defining, negotiating and exchanging info-event notifications in INFO messages, within SIP invite-created dialogs, for applications which need to exchange session-related information inside the invite-created dialog.
Negotiation

• Two new SIP headers
  – Send-Event
    • The type of info-events one is able to send
  – Recv-Event
    • The type of info-events one is able to receive

• Listed info-event can have parameters

• Both users indicate what the are able/willing to send and receive
  – A user shall not send anything until he has knowledge about what the other user is willing to accept
  – Information can be sent only in one direction
"Event packages"

• We should call it something else, e.g. "Info Packages"

• Event package defined for SUB/NOT can not be used as such for INFO
  – New package required for INFO
    • Package may of course share capabilities and also otherwise be very similar to a SUB/NOT package
  – Example can be found in draft-kaplan-sipping-dtmf-package-00
Dialog impact

• No separate dialog/dialog usage needed
  – INFOs associated with an invite dialog can be sent and received as long as the invite dialog is alive
  – No separate state machines

• INFOs routed as any mid-dialog request
Issue: Terminology

• We should use wording that does not cause confusion with regard to the SUB/NOT mechanism
  – ”Info Package” instead of ”Event Package”
  – ”Send-Info” instead of ”Send-Event”
  – ”Recv-Info” instead of ”Recv-Event”
Issue: "Negotiation"

- Currently defined that calling UA inserts his headers in the INVITE request and the called UA in an INVITE response
  - Problems with PCC
- We should allow more flexibility
  - Allow sending of the headers in ACK
  - We could borrow things from RFC 3264
    - We shall NOT call it "INFO event offer/answer"
- Headers should also be allowed in OPTIONS
Issue: "re-negotiation"

• Shall we allow to "re-negotiate" the info-event headers during the dialog (e.g. as part of a re-INVITE/UPDATE transaction)?
  – Useful for 3PCC?
  – Other use-cases?

• In case someone comes up with a use-case in future, would it harm?
Issue: "id" concept

• Currently used to support multiple SUBSCRIBE usages
  – INFO part of a single invite usage

• Would it be useful to be able to differentiate info-event packages within the invite dialog?
Issue: INFO rate

• Appropriate rate of INFO transmission
  – Is this INFO specific?
Issue: Info Package specification

• Method for Info Package specifications
  – Write a draft, and this is the type of information it shall contain
  – Package registration
Issue: Mandate support for Info Package

• Do we need to be able to indicate that a call shall be rejected unless the receiver support to send and/or receive specific Info Packages?
  – Option 1: Define a extension which requires certain Info Packages, and insert option-tag in Require header
    • Require: ZZZ
      – RFC defining ZZZ extensions/feature tag mandates the support of Info Event QQQ
  – Option 2: Define "required" header parameter for Send-Info/Recv info
    • Recv-Info: XXX;require, YYY
      – "I support receiving of XXX in INFO, and I require you to be able to send it to me"
    • Send-Info: XXX, YYY;require
      – "I support sending of YYY in INFO, and I require you to be able to receive it from me"
Issue: "Will use"

• Indicating support of specific Info Package does not mean it automatically will be used
  – The meaning is only to indicate "capability" and "willingness"
  – Application decided what to use
Issue: Replace RFC 2976?

• Should the draft contain the definition of the INFO method itself?
  – Aim to replace RFC 2976 rather than updating it?
• What about current standardized usage of INFO for transport of ISUP information?
  – Refers to RFC 2976
  – Do we need to say that the draft does not update the current usage of transporting ISUP information using INFO?
    • ISUP information carried in message bodies, not packages
If we adopt this mechanism...

- People will hopefully adopt this mechanism for new implementations and usages of INFO
  - Existing proprietary solutions will still be out there
  - People will bring their INFO usages to IETF
- We leave it up to the implementation community to choose when to use INFO, SUB/NOT, in-band, or whatever other mechanism to transport information
  - We provide a set of standardized tools, each with pros and cons