



OPTIONS

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AGENDA

› PROBLEMS

› SOLUTIONS

› WAY FORWARD

PROBLEMS

UNCLEAR PROCEDURES

PROC PROBLEM: RESPONsE CODE

- › **PROCEDURE:** RFC 3261 states that the response code is supposed to be the same as it would be for an INVITE.
- › **QUESTION:** Does this mean the OPTIONS request should be rejected if the UAS is currently in a call, and would reject an INVITE request?
- › **PROPOSAL:** Clarify that OPTIONS is about returning capabilities in general.

PROC PROBLEM: TO TAG

- › **PROCEDURE:** If the OPTIONS request contains a To tag, but no associated dialog exists, procedures seem to allow both 481 and 200 response, and even cause the dialog to be re-created.
- › **QUESTION:** Do we need to recommend more clear/consistent behavior?
- › **PROPOSAL:** If dialog does not exist, return a 481 response – general SIP procedures.

PROC PROBLEM: ACCEPT-CONTACT

- › **PROCEDURE:** RFC 3841 states that a request can be rejected if the UAS does not support feature tags in Accept-Contact

- › **QUESTION:** Does this apply also to OPTIONS?

- › **PROPOSAL:** Yes

- › **TBD:** Does this apply also to other headers (e.g.. Require), or are they only used in OPTIONS to indicate the capabilities of the UAC?

PROBLEMS

FORKING

FORKING PROBLEM: overview

- › If an OPTIONS request is forked towards multiple UAS(s), only one 200 OK response will be forwarded towards the UAC.
 - Forking can be controlled using feature tags, but problem still remains.
 - Claim that "Request-Disposition: no-cancel" would make forking proxy forward **ALL** 200 OK responses. No agreement.

ORKING PROBLEM: SOLUTION

”OPTIONS 3XX”

- › 1. Forking proxy returns 3xx (302) response to OPTIONS request, which contains contacts representing the UAS(s) associated with the addressed AOR in the OPTIONS request.
- › 2. UAC can send individual OPTIONS request using the contacts in the 3xx response.

"OPTIONS 3xx": QUESTIONS (1/3)

- › **QUESTION:** How does the proxy makes a decision whether to return a 3xx response, or fork the request?
- › **PROPOSAL:** Use "Request-Disposition: redirect"
- › **TO BE DISCUSSED:** If there is no R-D, does the proxy still return 3xx in case of multiple contacts, or is "Request-Disposition: proxy" assumed as default (does RFC 3841 say anything about this??)

”OPTIONS 3xx”: QUESTIONS (2/3)

- › **QUESTION:** Does the proxy return the registered contact address/gruu of the UAS(s), or something which ”hides” the addresses?
- › **PROPOSAL:** Policy decision

”OPTIONS 3xx”: QUESTIONS (3/3)

- › **QUESTION:** If OPTIONS request contains Accept-Contact with capability feature tags, does the proxy only return contacts for UAS(s) that matches the capabilities (in the same way the proxy would only fork the request to such UAS(s))?

- › **PROPOSAL:** Yes

WAY FORWARD: ALTERNATIVES

- › **ALT 1:** **Do nothing** – everything is clear

- › **ALT 2:** **Produce a BCP document**, which clarifies the issues related to the handling of OPTIONS

- › (If actual FIXES are needed, other documents may be needed)

- › **PROPOSAL:** Alternative 2

THANK YOU!