Target URI delivery in the Session Initiation Protocol (SIP)

draft-holmberg-sip-target-uri-delivery-01.txt

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ABSTRACT

(draft-holmberg-sip-target-uri-delivery-01)

- Specifies an alternative mechanism how to deliver the current target URI towards the UAS, e.g. in order to implement the use-cases specified in draft-rosenberg-sip-ua-loose-route.

- Proposes a new SIP header: Target
  - Target is "working name" – we can call it something else if people want
  - Represents current target
    - If no header, entities assume the R-URI represents the current target
  - Not used for routing

HOW IT WORKS:
UA-LOOSE-ROUTE METHOD

- In **retarget** cases, the Request-URI is re-written
  - Request-URI will contain current target

- In **routing** (non-retarget) cases, a Route header containing the new value is inserted
  - Request-URI is unchanged, and will still contain the current target

HOW IT WORKS: TARGET METHOD

- In **retarget** cases, the Request-URI is re-written
    - Request-URI will contain current target
    - Existing Target header is removed

- In **routing** (non-retarget) cases, the Request-URI is re-written
    - If not present, Target header is inserted and will contain Request-URI value before it was re-written

PROS & CONS
(Why it is not simply a beauty contest)

PROs:

- Target does not require knowledge whether the next hop supports the mechanism or not
  - Does not require provisioning (in cases where registration cannot be used to indicate support)
  - Can be used towards any proxy or UA

- When Target is used, services which rely on the delivery of the current target will work even if the next hop(s) does not support the mechanism

- Target does not change existing routing logic

- Target works with current IMS P-CSCFs
  - Ua-loose-route does not work with current IMS P-CSCFs
    - P-CSCFs assume the R-URI contains the registered contact
    - Restriction will most likely be removed in Rel-8
      - IMS UE and registrar (S-CSCF) would need to get indication whether the P-CSCF is Rel-8

CONs:

- Target defines a new SIP header carrying a URI
  - Ua-loose-route uses existing SIP message elements

TARGET:
YET ANOTHER URI?

- The Target header carries yet another URI in a SIP message
- But, the number of URIs in a SIP message is not a problem – as long as they are **useful** and have a **clear semantics.**
- Target header semantics:
  "The Target header field represents the current target identity"

- The **To header** normally carries the original target
  – Header is not changed when a retarget occurs
- The **P-Called-Party-ID header** contains the the last Request-URI value used to reach the user before the Request-URI value was re-written with the Contact address of the UAS.

PROVISIONING IS BAD

- We have enough of interoperability issues with SIP already

- The usability of a method which relies on next-hop provisioning will be extremely limited
  - In most cases one simply doesn't know
  - Service limitation and unpredictability

- There is a reason why we have the OPTION method, option-tags, Require headers etc etc
  - NOT having to do provisioning

MAIN QUESTION

- Do we want to define a mechanism which relies on provisioning?

THANK YOU FOR LISTENING!

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