Target URI delivery in the Session Initiation Protocol (SIP)

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

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ABSTRACT

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• 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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