Requirements for Referral in Mobile Network

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Introduction

- Referrals are introduced into network to make entities reachable straightforward.

- Referrals across NATs break

- Contents of referrals are different

R1 Standard referral format

- The referral formats need to be standardized.
- Applications can understand the meaning of referral informed, such as IP address, possibly protocol and port numbers.
- An open question raise up: whether this standard referral design should be use for new applications only, or including all existing applications.

R2 Simplify ALG during NAT traversal

- There are middle boxes, like firewalls and translators, exist in the mobile network, which cause applications need to do translations, especially ALG.
- The cost of translation functions included ALG is huge for the mobile operator in terms of implementation, performance.
- Standard referral could simplify ALG implementation during NAT traversal in the mobile network.

R3 Network inspection consideration

- Operators sometimes need to inspect information or details during communication for administration motivations.

- If referral format is standardized, it is easy for operator to capture and investigate the communication information they required.