Requirements for Referral in Mobile Network

Bo Zhou, Hui Deng
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.