

Supporting Multimedia Session Mobility using SIP

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Two very important factors :

- Seamless global roaming across heterogeneous network
- Support for high speed multimedia sessions in a mobile setting

Supporting multimedia session mobility over IP based networks involves maintaining an active multimedia session on a mobile device while the device is roaming.

4 different mobility aspects

1. Personal mobility
2. Terminal mobility
3. Service mobility
4. Session mobility

This paper looks at ways in which SIP can be used to implement each of the 4 aspects.

Personal Mobility

- Personal mobility refers to the users ability to access mobility services from anywhere at anytime using any terminal.
 - SIP Registrar
 - Location Services Registrar
 - Users use single personal identifier in all occasions
 - Any incoming calls/messages can be redirected to the active terminal

Terminal Mobility

- Terminal mobility refers to the users ability to use his terminal to move across networks while having access to the same set of subscribed services.
 - SIP Registrar
 - Redirect Server

Service Mobility

- Service mobility is defined as the ability of the network to consistently provide services to the user with expected QoS, regardless of the user's location.

This can be implemented in 2 ways:

- Centralized registration through the home network
- Distributed registration through the visited network.

Session Mobility

- Session mobility refers to the users ability to maintain an active session while switching between terminals.
- By using re-INVITE method
- An INVITE method sent while session is in progress.
- New terminals can be added and existing ones removed.

SIP Scenario

Nowadays user may be associated with multiple network devices at the same time.

e.g: mobile, laptop, PDA, desktop

SIP permits use of a single logical address associated with multiple actual addresses.

When a call request arrives at SIP redirect server, all address associated with logical address are invited to join using INVITE method. A session is established with the first device that answers the request and other INVITE's are cancelled.

THE END