Agenda Item: 6.6

Source: DoCoMo/NEC/Fujitsu

Title: **Proposed Requirements For 3GPP SA Phase 1 Document**

Document for: **Include in phase 1 baseline document**.

The following are important phase 1 requirements that have been identified in the TTC document GSM evolved network requirements v.0.3.5 and proposed to be included in the agreed baseline document for phase 1.

General Requirements

·b Global roaming

·b Multimedia

·b Service portability. Ability of users to have transparent access to a set of their subscribed services when roaming.

·b Diversification and quick provision of services

     ·b Services newly created by an operator should be provided to the user quickly.

·b Network efficiency.

     ·b Transport techniques, which can utilise bandwidth efficiently.

     • Resource optimisation at the radio access network..

·b Interworking with ISDN/PSTN

·b Negotiation/Modification of bearer

     ·b It is required to support the capability to negotiate the bearer capabilities between user and user or between user and networks.

     ·b It is required to support to modify the bearer capabilities.

·b Support of asymmetric communication. It is required to support asymmetric communication in both directions between MT and network for circuit switched mode and packet mode.

- Emergency Call

  - It should be possible to connect emergency call to the appropriate destination (i.e. police station or fire brigade).
  - The dial number is different for each call in Japan (i.e. *110* for police and *119* for fire brigade). It is required to support the capability to identify of emergency call for police or fire brigade in call/connection control.

·b Mobility control requirements

  ·b Ensure optimisation of internetwork signalling.

·b Security enhancements

  ·b Variable length of security parameters.

  ·b Secure detach

  ·b Mutual authentication

·b Multicall

  - Multiple simultaneous calls. Circuit switched call and packet session can be held in a MT simultaneously and independently. In addition, multiple CS calls and multiple packet sessions can also be held in a MT.

  - The number of simultaneous call offered to the user shall be limited by subscription.

  - With the multicall service, CW, CALL HOLD and MPTY services can be offered simultaneously.

APPENDIX

Relation with Supplementary Service

With the multicall service, CW, CALL HOLD and MPTY services can be offered simultaneously.
CW (fig 1.1) and CALL HOLD (fig 1.2) shall be offered by using bearers. Both of the services result in the same state; there are two calls related to one bearer and another call, and one of first two calls is active and another is held. MPTY (Fig.1.3) shall be offered from a state whose one call is active and another call is held.
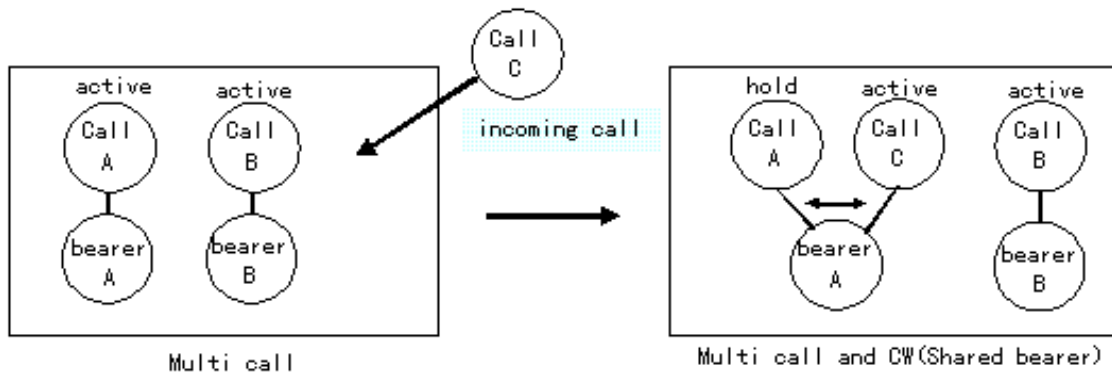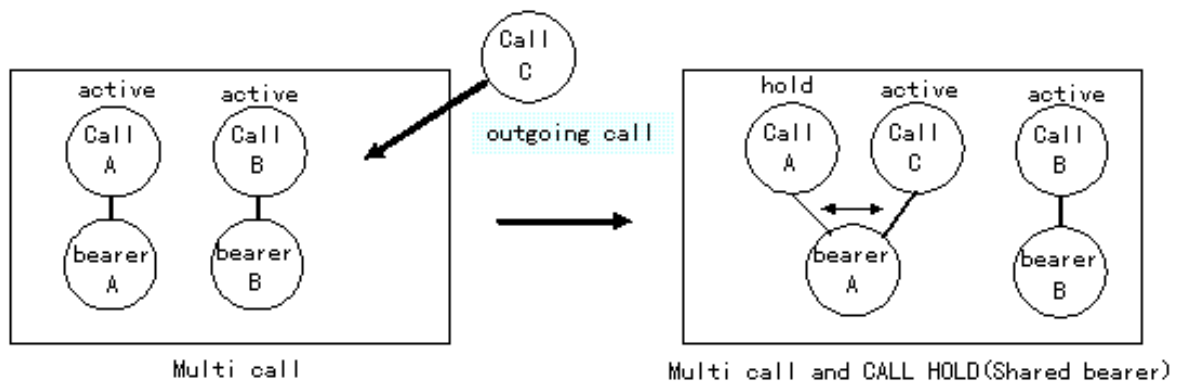
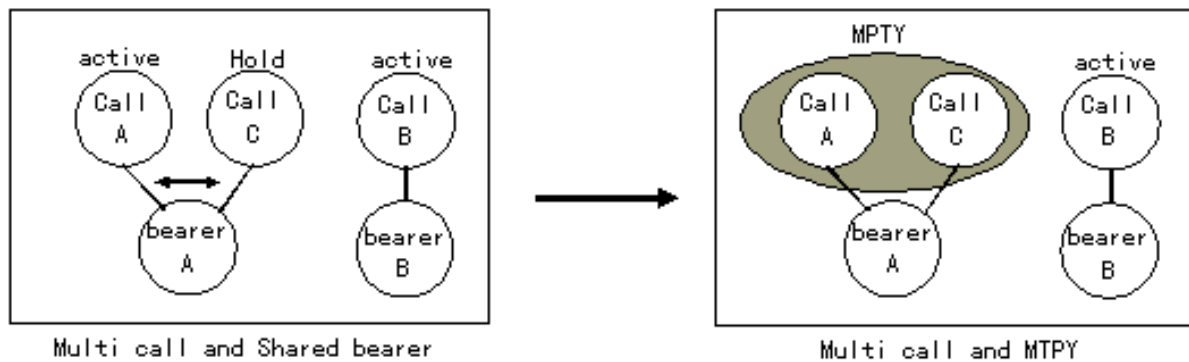Fig 1.1 Call Waiting

Fig 1.2 Call Hold

Fig 1.3 Multi Party

When an additional incoming or outgoing call is initiated, the user can select to form a multicall (multiple bearers) or a shared bearer If there are multiple bearers, the user can select which bearer to be formed a shared bearer
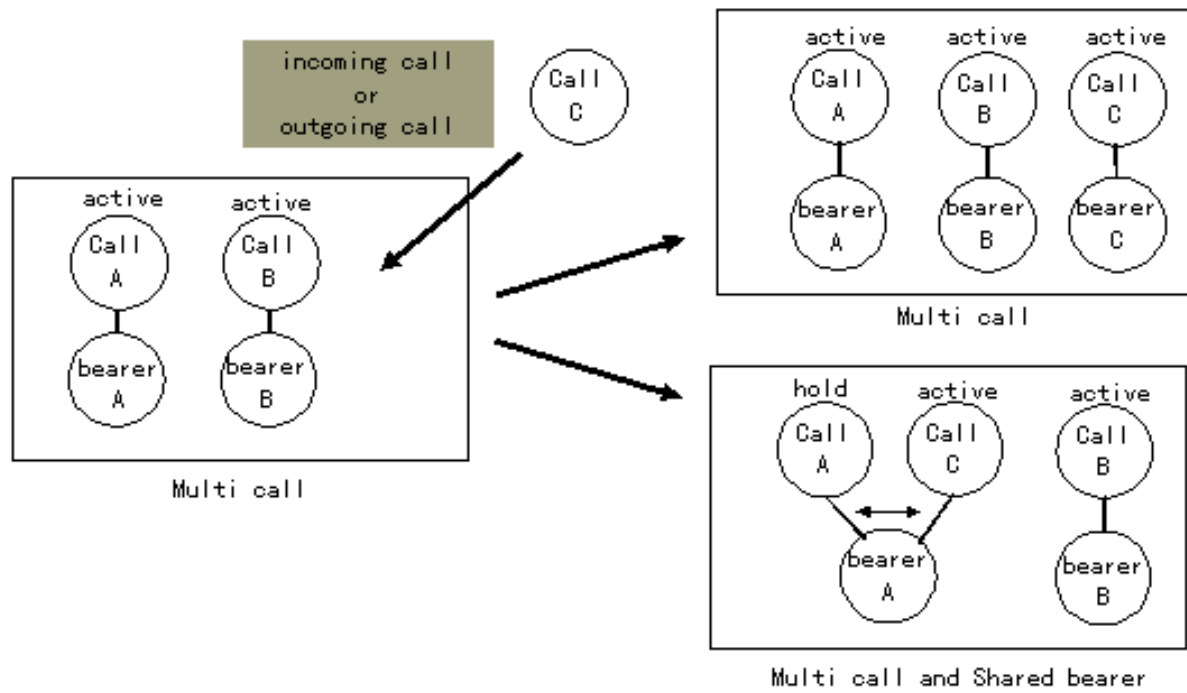
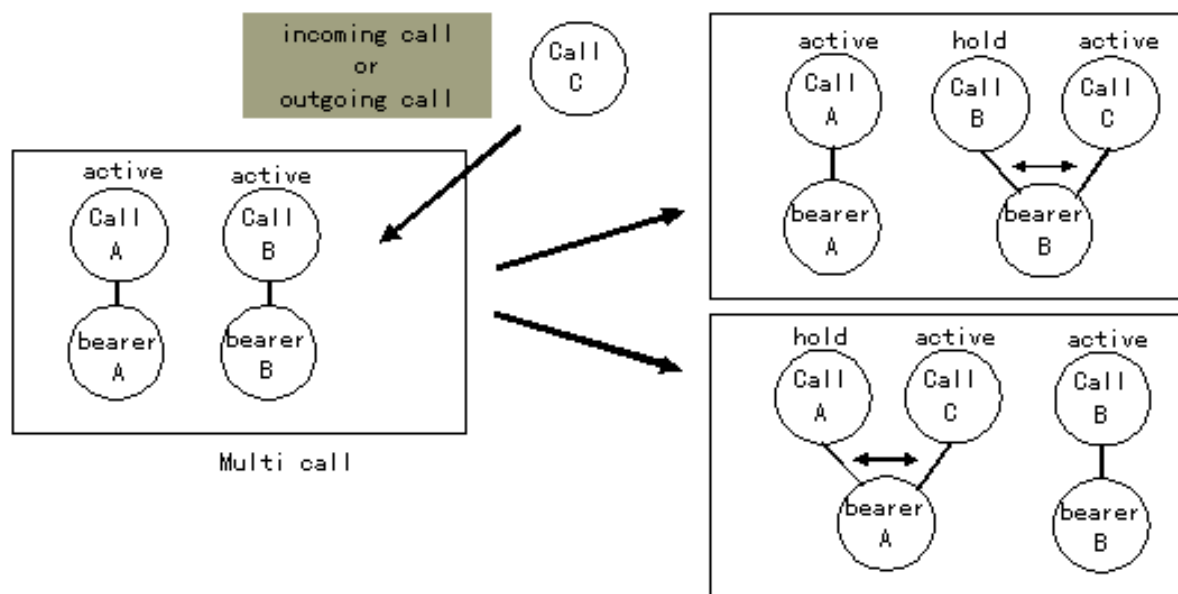Fig 1.4 Selection of Multicall or Shared Bearer

Fig 1.5 Selection of Shared Bearer

Fig 1.1 Call Waiting

Fig 1.2 Call Hold

Fig 1.3 Multi Party

Proposal: Include main texts in main section of 3GPP SA phase 1 requirement (UMTS 22.00 equivalent)
Include appendix above in appendix of 3GPP SA phase 1 requirement.

Core Network Requirements

- ·b ·bFind and bill the correct user, network and VASP for provided services and associated signaling

- ·b ·bInterpret the addressing, the QoS negotiation and the service logic of services demanded

- ·b ·bKeep accurate account for services delivered

- ·b ·bRoute incoming calls, service request and signals to the correct receiver

- ·b ·bInterpret the MMI received from the user/subscriber's terminal into session control information or service provider dialogues

- ·b ·bMaintain distributed subscriber and user data consistent with data held in the Home Environment.

- ·b ·bInterwork with other networks

- ·b Locate the user and route incoming sessions to the user

- ·b ·bAuthenticate the users and Home Environment in the network and allow access to services

- ·b ·bAdd or cancel service subscription

- ·b ·bCease subscription to a service when the subscriber departs

- ·b ·bModify the user/subscriber profile

- ·b Account for user traffic and signaling traffic

- ·b Distribute user interface logic and service logic for new services

- Negotiate bearer/service capabilities and their attributes such as throughput and QoS level of the service capabilities will be negotiated between the network and the user based on what is necessary for the service and what capabilities are available in the network.

- ·b Internetworking Requirements

- ·b ·b NNI should have the capabilities to provide information for user charging and interconnection charge billing between serving network and supporting/home network;

·b   ·b   NNI should have the management capabilities to provide protection of the home network from overload

·b   ·b   NNI should have the security capabilities such as authentication and screening

Proposal:
To be included in Core Requirement sections in 3GPP SA phase 1 document (equivalent to UMTS 22.00).