**Source:**     Ericsson
**Title:**       Work Item Description for Voice over GERAN PS and CS concept
**Document for:**  Decision

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## Work Item Description

**Title**

Work Item Description for Voice over GERAN PS and CS concept

### 1        3GPP Work Area

| | |
|---|---|
| X | Radio Access |
| | Core Network |
| | Services |

### 2        Linked work items

- GERAN overall description
- GERAN header adaptation
- GERAN radio access bearer design
- GERAN user / control plane
- GERAN RR
- Iu rg
- Narrowband speech realization
- GERAN security
- MS Conformance test for GERAN interface evolution
- BTS Conformance test for GERAN interface evolution

### 3        Justification

The GERAN work item will provide a platform to provide the four UMTS bearer classes: conversational, streaming, interactive and background. This includes IP end to end voice and multimedia services and provides the possibility to connect the 200kHz radio access to a 3G core network.

### 4        Objective

The GERAN work item will provide:

- IP Multimedia (real-time end-to-end IP)
- Alignment with UMTS/UTRAN architecture, bearer services and QoS handling
- Spectrum efficiency and performance improvements (multiplexing scenario 1-2 as described in the system concept document)
- Specification flexibility for future enhancements

**5          Proposed building blocks and work tasks:**

| Building Block | Work Task |
|---|---|
| Voice over GERAN PS and CS concept | Voice over GERAN PS and CS concept<br>• Architecture for A, Iu cs and Iu ps<br>• Transcoder position/operation<br>• Handover<br>• RTP payload<br>• FPC<br>• LA |

**6          Service Aspects**

Services provided to UTRAN will be provided by GERAN.

**7          MMI-Aspects**

None

**8          Charging Aspects**

None

**9          Security Aspects**

The same or at least similar security will be provided as for UTRAN.

**10          Impacts**

| Affects: | SIM | ME | AN | CN | Others |
|---|---|---|---|---|---|
| **Yes** | | X | X | | |
| **No** | X | | | | |
| **Don't know** | | | | X | |

**11          Expected Output and Time scale (to be updated at each plenary)**

The time plan for this work item is documented in 50.099 (GERAN project plan)

**12          Work item raporteurs**

Ericsson – Frank Mueller

**13          Work item leadership**

TSG GERAN

**14          Supporting Companies**

Alcatel, AT&T, Ericsson, Lucent, Nokia, Motorola, Nortel, Siemens

**15          Classification of the WI (if known)**

| | |
|---|---|
| | Feature (go to 14a) |
| X | Building Block (go to 14b) |
| | Work Task (go to 14c) |

15a     The WI is a Feature: List of building blocks under this feature

15b     The WI is a Building Block: parent Feature

GERAN radio interface evolution

15c     The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)