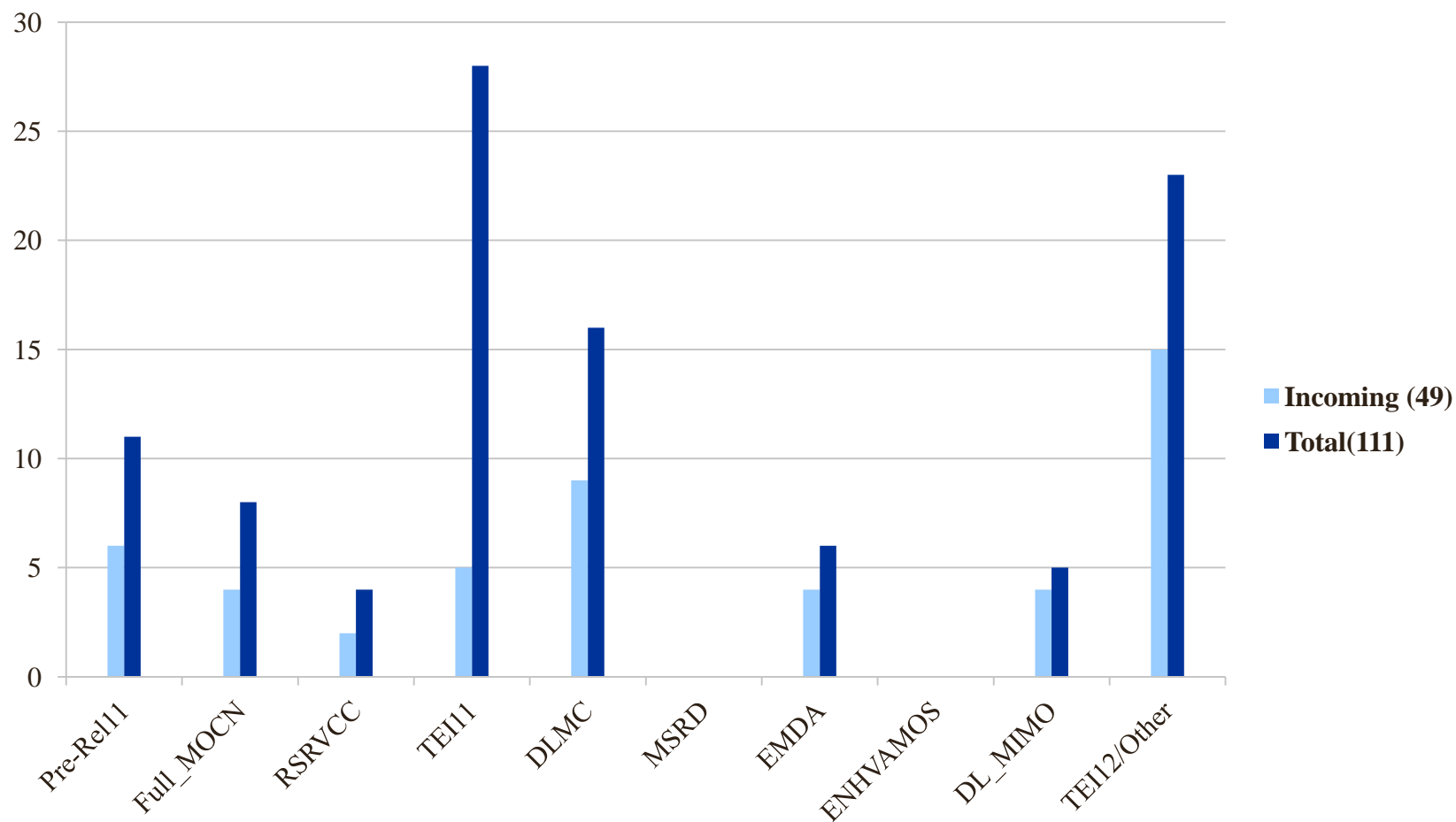# 3GPP TSG GERAN WG2#60

Chairlady's Summary (GP-131128)

Chairman: Yang ZHAO (Huawei Technologies)

Secretary: Gert THOMASEN (MCC report in GP-131129)

Incoming Contributions

Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00		LSs	DLMC	New TSC/ UL MIMO	
		Pre-Rel11			
10:30 11:00		Coffee Break	Coffee Break	Coffee Break	
		FULL_MOCN	DLMC	Revisions	
12:30 14:00		Lunch	Lunch	Lunch	
		RSRVCC	MTC power reduction	Revisions	
15:30 16:00		Coffee Break	Coffee Break	Coffee Break	
		TEI11/TEI12 /OTHER	EMDA/ DL MIMO	Revisions	
18:30					

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1 **Pre-Rel11 Corrections**

2 Rel-11 Work

3 Rel-12 Work

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7.2.5.1 Pre Rel-11

➢ **Additional Cause code #17 for redirection in MOCN**

  ➢ **GERAN#59:**

  - LS sent from CT1 in 0633: change starts since Rel-11

  - Concerns raised on backward compatibility for Rel-10 BSC supporting MOCN

  - 0695, 0696, 0734, 0735, 0829, 0830 CRs on 48.008/48.018 postponed: more time needed to check backward compatibility

  - LS sent back to CT1/RAN3 in 0801 to highlight the above issue

  ➢ **GERAN#60:**

  - LS from CT1 in 0951: acknowledgement of backward compatibility problem and suggest to start change since Rel-10

  - 1066, 1067 CRs on **48.008** and 1068, 1069, 1070 on **48.018** agreed since Rel-10: to add cause#17 in Reroute Command

  - Reply LS in 1062 agreed: to inform CT1 that GERAN has started change of adding cause#17 in Reroute Command since Rel-10

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7.2.5.2.1 FULL_MOCN

➢ **3G Neighbor Cells reporting**

   ➢ **GERAN#59:**

- 0703 addressed the issue that SI23 does not provide 3G Neighbor cell info and thus no measurement reporting can be sent

  - G2 agreement: The UTRAN information provided in the SI23 message cannot be used for measurement reporting

  - Further clarification is required on how to build up 3G NCL in network sharing case

- 0827 CR 44.018, 0828 CR 44.060 postponed: to report 3G Neighbor cell based on the cell info sent by Measurement Information/Packet Measurement Order

   ➢ **GERAN#60:**

- 1011: update of 0703

- G2 agreement: to change the normative text in order to clearly reflect the requirements on how to construct 3G Neighbor Cell List in FULL_MOCN case

- 1090, 1092 CRs on **44.018** and 1093 CR on **44.060** postponed: pending on companies review

- 1094 Draft CR on **45.008** for information noted: corresponding change on SI23_3G_BA_IND/ SI23_3G_BA_IND_USED, pending on companies review

7.2.5.2.3 RSRVCC(1/2)

- **Handling of UE E-UTRA Capabilities in CS domain**
  - **GERAN#56**
    - Alt1: 1320 propose to define a short E-UTRA Capabilities
    - Alt2: 1301 proposal not to send the capabilities, but instead to inform some supported E-UTRA freq/bands via source BSS to target eNB container
    - Alt3: 1326 proposal for the BSS to obtain the information from the SGSN
  - **GERAN#57**
    - Alt3a: 0179: proposal to update 1326
  - **GERAN#58**
    - LS from RAN2 in 0417 to limit capabilities to 255 octets (the same issue exists for PS Handover to E-UTRA as of Rel-8)
    - 0391: Update of Alt2
    - 0400/0477: Impact on call set-up delay and speech quality can be significant
  - **GERAN#59**
    - 0715: update of 0179
    - GP-130740: update of 0400
    - G2 agreement: SA2 is in charge of the discussion

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7.2.5.2.3 RSRVCC(2/2)

➤ **Handling of UE E-UTRA Capabilities in CS domain**

  ➤ **GERAN#60**

  - LS from RAN2 in 1038 and LS from SA2 in 0958 recommend to

    - Disable UE E-UTRA capability delivery from source BSS and define a minimum UE E-UTRA capability in RAN2

    - inform supported E-UTRA freq/bands instead of sending the capabilities (see MFBI discussion)

  - 1024: update of 0715

  - G2 agreement:

    - not sending E-UTRA capability in CS domain

  - 1117 Draft CR on **24.008** Endorsed: to specify that for the MS supporting SRVCC, it shall support the minimum UE E-UTRA capability requirements as defined in 3GPP TS 36.306

  - 1119 LS to RAN2/SA2/CT1 agreed: to inform RAN2/SA2/CT1 that the GERAN has decided not to send UE E-UTRA capability for RSRVCC Handover.

7.2.5.2.4 TEI11(1/2)

➢ **Correction of E-UTRAN Cell Reselection Parameter**

  - 1082, 1083, 1084 CRs on **44.060** agreed since Rel-9: frequency index should be 3 bit instead of 5 bit

➢ **UE E-UTRA Capability transfer for PS Handover**

  - LS from RAN2 in 1038 and LS from SA2 in 0958 recommend to

    • Disable UE E-UTRA capability delivery from source BSS and define a minimum UE E-UTRA capability in RAN2

    • inform supported E-UTRA freq/bands instead of sending the capabilities (see MFBI discussion)

  - 1024: update of 0715

  - G2 agreement:

    • not sending E-UTRA capability for PS domain from Rel-8

7.2.5.2.4 TEI11 (2/2)

➤ **UE E-UTRA Capability transfer for PS Handover(Cont')**

- 1118 Draft CR for Rel-8 on **24.008** Endorsed: to specify that for the MS supporting PS HO, it shall support the minimum UE E-UTRA capability requirements as defined in 3GPP TS 36.306

- 1096, 1097, 1098, 1099 CRs on **43.129** Endorsed: to specify Stage 2 procedures of disabling request of UE E-UTRA capability

- 1100, 1111, 1112, 1113, 1114 CRs on **48.018** agreed: to specify Stage 3 description of disabling request of UE E-UTRA capability

- 1119 LS to RAN2/SA2/CT1 agreed: to inform RAN2/SA2/CT1 that the GERAN has decided not to send UE E-UTRA capability for GERAN->E-UTRAN PS Handover.

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7.2.5.3.1 Downlink Multicarrier (1/2)

➢ **DLMC working assumption update in 1115**

- New WA on TFI extension when the MS supports more than 20 timeslots : agreed in WA73/74

- New WA on SNS increase when the MS supports more than 20 timeslots: agreed in WA77

➢ **Solutions discussion**

- 1019 Proposal when the MS supports more than 20 timeslots to

  - Extend the TFI into 3 extra bits

  - Increase the Sequence Number Space

  - Use CS-3 as an alternative for PDAN message

- 1095 Discussion on Simulations of increased SNS and PDAN space

  - More investigation required on CS-3 usage for PDAN message

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7.2.5.3.1 Downlink Multicarrier (2/2)

➢ **Solutions discussion (Cont')**

- 1086 CR on **44.060**, 1087 CR on **44.004** postponed: pending on decision to use CS-3 for PDAN messages

- 1022 CR on **44.018**, 1023 CR on **48.018** Conditionally agreed: principle of introducing DLMC is adopted and pending on other CRs to be agreed as a full set

- 0964 Draft CR on **24.008** Endorsed: to introduce the UE DLMC capability description, LS will be sent to CT1 when other CRs agreed as a full set

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7.2.5.3.3 EMDA

- **Minutes in 1017 of GERANEMDA Telco#6 noted**
- **Work Plan in 1018 noted**
- **New traffic model discussion**
  - **GERAN#59**
    - G2 agreement:
      - Solutions shall be evaluated based on the existing traffic model in the TR
      - New traffic model can be considered if necessary but is out of EMDA scope
  - **GERAN#60**
    - 1016 proposal to
      - Modifications and examples added for loss of login/ordinary messages
      - Examples and clarifications added for lost/blocked messages
      - No introduction of TBF blocking rate and keep loss of messages metric
      - delay release of uplink and downlink TBF should be used in the simulation and timer value is 2s for both uplink and downlink TBF.
      - Performance of legacy mechanism should be decided as the baseline
    - **G2 agreement**: agree all above proposals and TR updated in 1116 as the baseline for future discussion

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7.2.5.3.5 Downlink MIMO

- **Meeting Minutes in 0982 of DL MIMO telco#2 noted**
  - WG2 delegates are encouraged to provide more input
- **Work plan in 0987 noted**
- **RLC/MAC aspects**
  - 1103 (update of 0984): proposes to
    - new DL MIMO multislot capability reduction parameter:
      - More investigation needed on how to co-work with DCDL and DLMC
    - TBF establishment: principle agreed in G2
    - TBF operation: principle agreed in G2
      - USF decoding is left for MS implementation as long as it meets the USF blocking rate
    - Multiplexing of legacy MSs: principle agreed in G2
    - MS capability signaling: principle agreed in G2
- **TR in 0986 noted**

7.2.5.3.6 TEI12 (1/3)

➢ **MFBI**

  ➢ **GERAN#59**

   ● Working assumption made as:

     • no MFBI indication in system information and relies on UE-centric approach for idle mode mobility

     • further investigation of MFBI indication for connected mode

  ➢ **GERAN#60**

   ● LS from RAN2 in 0955 suggest an explicit MFBI capability indication from MS to BSS

   ● 1029: proposal to have explicit UE MFBI capability indication (also require UE to support monitoring up to 8 frequencies) to BSS and reuse legacy signaling in connected mode, as well as to add clarifications for MS in idle mode

   ● 1010: proposal have explicit UE MFBI capability indication to BSS and reuse legacy signaling in connected mode

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7.2.5.3.6 TEI12 (2/3)

- **MFBI (Cont')**

  - G2 agreement for connected mode:
    - WA1: the BSS will send EARFCNs based on the MFBI capability indication from MS
    - WA2: whether the UE is capable of monitoring up to 3 physical frequencies
      - Out of WG2 scope and sent to WG1 for further discussion
    - WA3: the BSS is required to transfer the EARFCN supported by the MS to the target eNB, which message to include this info depends on further feedback from RAN2
  - G2 agreement for idle mode:
    - Still no MFBI indication in system information and relies on UE-centric approach
    - Clarifications on MS behaviour for measurements/measurements reporting is needed
  - CRs are expected to address the above agreement at next GERAN meeting
  - 1120 reply LS to RAN2 agreed: reflect the above WA1 and ask RAN2 which message to include the EARFCN supported by the MS based on WA3

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7.2.5.3.6 TEI12 (3/3)

➢ **Optimized Matching Procedure**

  ➢ **GERAN#59**

    ● 0721, 0707 noted

      • Misc concerns raised: more evaluation required (impact on SI23 which is already used for network sharing case, impact on legacy mobiles etc.)

      • 0722 CR 44.018 postponed

  ➢ **GERAN#60**

    ● 1015: further performance evaluation on the original proposal

    ● Further investigation needed, pending on discussion for long DRX

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7.2.5.3.7 Other (1/3)

- **SI2quater capacity extension**

  - 0949 noted: proposal to create a new SI(SI24) to extend SI2quater as it is foreseen with size limitation and avoid impact on SI23 which is now used for network sharing only

    - No working assumption can be made at this stage as the requirement is case by case

- **BeiDou Navigation Satellite System (BDS) for LCS**

  - 1122 WID agreed: proposal to support BDS into GERAN specifications by defining a new GANSS ID and introducing some necessary assistance data information.

  - 1048 Work Plan noted: specification work is expected to be complete at GERAN#62

  - LS from RAN3 in 1091 noted: work has been completed in RAN3 and related work in GERAN is expected to be done under new agreed WID

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7.2.5.3.7 Other (2/3)

➢ **MTC power saving**

- 0993 noted: discussion on the necessity of study power reduction for MTC devices

    - Requirements on study MTC device power reduction are confirmed

- 1045 noted: proposal of long DRX to reduce power consumption for MTC devices

    - More investigation needed: e.g. the impact on mobiles in case of network reconfiguration, performance evaluation between purely power off and long DRX

    - SA2/CT1 groups are foreseen to be involved

- G2 agreement:

    - a new Study Item is needed to kick off the study

- 1108 SID agreed: aiming at study power reduction for MTC devices for both idle and connected mode

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7.2.5.3.7 Other (3/3)

- ➢ **Uplink MU-MIMO**
  - ➢ **GERAN#59**
    - 0781 : proposal on a potential data capacity improvement by means of common USFs and orthogonal training sequences noted
      - More investigation needed on the gains
    - 0783 : Draft WID on Multiplexing Radio Blocks in the Uplink noted
  - ➢ **GERAN#60**
    - 1000 performance discussion noted
    - 1043 Discussion on the scope of the study noted
    - 1107 new SID noted: G2 in principle agree to starting the study with the scope pending on G1/plenary conclusion
- ➢ **New TSC**
  - 1041 Proposal to design New Training sequence codes for GERAN noted
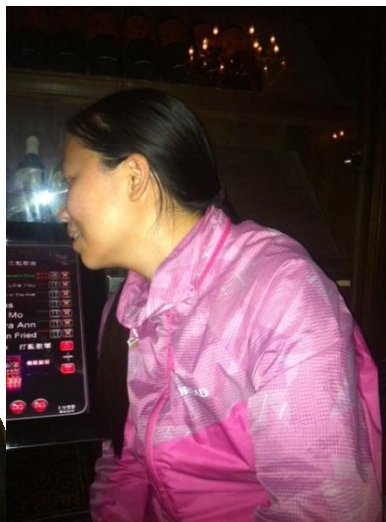 - 1042 new WID noted: G2 in principle agree to starting this subject except that the time plan is FFS

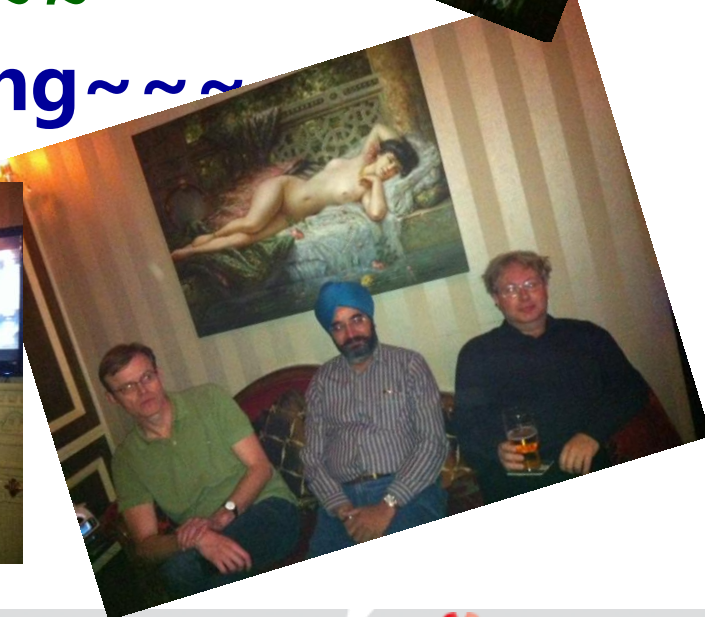**HUAWEI**

Outgoing LSs

➢ **Source GERAN2**

- GP-131062 Reply LS on additional cause causes triggering redirection
- GP-131120 Reply LS on Inter-RAT capability signalling for MFBI
- GP-131119 Reply LS on Provisioning of E-UTRA Radio Capabilities in GERAN

Next Meetings

- GERAN2#61   25 - 27 February 2014, Sophia Antipolis, FR
- GERAN2#62   27 - 29 May 2014,   Valencia, ES
- GERAN2#63   26 - 28 Aug 2014,   Ljubljana, SI
- GERAN2#64   18 - 20 Nov 2014,   San Francisco, US

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Good Luck, Julie~~~
Welcome, Han Jing~~~

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Thank You