

# 3GPP TSG GERAN2#58

Chairman's Summary – GP-130563

Innovative solutions  
for tomorrow's challenges

Chairman: Guillaume SEBIRE

Secretary: Gert THOMASEN (MCC Report: GP-130539)

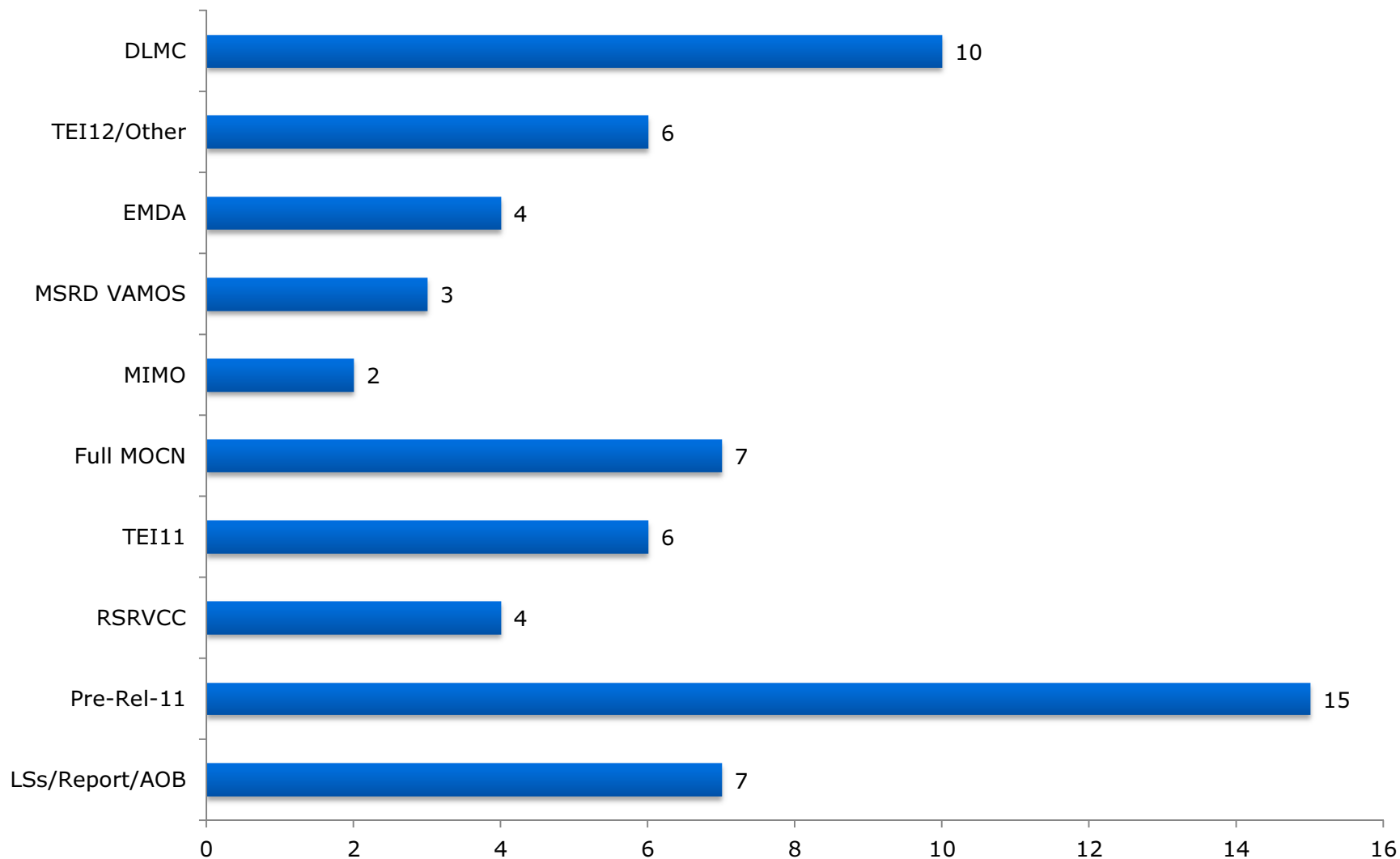
# Election

- Ms. Yang Zhao (Huawei Technologies/ CCSA) elected by acclamation

# Incoming Contributions

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Total: 64 (117)



# Schedule

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	Monday	Tuesday	Wednesday	Thursday	Friday
9am		LSs Pre Rel-11	MSRD VAMOS MIMO	Revisions	
10.30am		Coffee	Coffee	Coffee	
11am		FULL MOCN	DLMC	homework	
12.30pm		Lunch	Lunch	Lunch	
2pm		FULL MOCN RSRVCC	DLMC	Revisions	
3.30pm		Coffee	Coffee	Coffee	
4pm		RSRVCC TEI11	EMDA TEI12 / Other	Revisions	
6.30pm					

# Pre Rel-11

# Misc. (1/3)

- MFBI
  - GERAN#57
    - LS from RAN2 in GP-130088
    - Discussion in GP-130151, GP-130206. Proposals to
      - Either no MFBI indication in system information; and possibly
        - > MS supporting a given band, to support EARFCNs of applicable overlapping bands
        - > MFBI indication in Measurement Info / Packet Measurement Order and/or Band support in CM3/MS RAC
      - Or MFBI indication in system information
    - More time needed. Decision expected at GERAN#58
  - GERAN#58
    - Resubmission of GP-130206 (GP-130431)
    - Late proposal in GP-130392 to allow MFBI support for idle mode and connected mode while highlighting a number of potential issues
    - More time needed



# Misc. (2/3)

## ■ EARFCN

### ■ EARFCN Extension

#### • GERAN#57

- LS from RAN2 in GP-130086
- Discussion in GP-130206: no extension of EARFCN address space; Use of locally unused UL EARFCNs in GERAN to accommodate new carriers
- More time needed. Decision expected at GERAN#58

#### • GERAN#58

- Resubmission of GP-130206 (GP-130431)
  - » Support expressed by one company: re-use of FDD UL EARFCNs
- Late proposal in GP-130501 to expand the EARFCN space
- CRs 44.018, 44.060 in **GP-130432 – GP-130437** postponed (ref. GP-130431)
  - » Indicate how FDD UL EARFCNs could be used

# Misc. (3/3)

- MOCN

- Clarification of Clear Command at Rerouting Procedure for MOCN

- Discussion in GP-130485 suggesting that a CLEAR COMMAND shall always follow a REROUTE COMMAND and that in this case no radio resources are to be released, only the SCCP connection
    - [GP-130526](#), [GP-130507](#) CR 48.008 agreed (Rel-10+)

- LS from RAN3 in GP-130418 indicating a possible ambiguity in NAS Reject messages on the A/Gb interfaces for MOCN

- [GP-130527](#), [GP-1303528](#), [GP-130524](#), [GP-130525](#) CRs 48.018, 48.008 agreed(Rel-10+)
  - LS to RAN3 in [GP-130537](#)

# Rel-11

# Full MOCN + DSAC

- Support of mobility to other RATs
  - GERAN#56: Way forward for supporting MS:
    - SI23 message including, per PLMN, up to 3 frequencies and priorities per RAT (UTRAN/E-UTRAN) and mode (FDD/TDD), as well as associated thresholds
      - If no UTRAN and/or EUTRAN info is provided for a given PLMN in SI23, then there is NO interworking with UTRAN and/or E-UTRAN towards that PLMN in this cell
    - Inter-RAT Measurement parameters acquired as per legacy means
  - [GP-130536](#) CR 44.018 agreed: misc. essential corrections on SI23 acquisition and NCLs construction
    - GERAN#57: Open issue: reference to NCL in measurement reporting. This issue will be solved by GERAN#58
  - [GP-130533](#) CR 44.060 agreed
- GP-130479 addressing how to identify the NCL used by the UE: whether based on SI2q or SI23. No consensus whether or not there is a problem to solve, and if so its magnitude. More investigation needed
- GP-130480 on reporting of 3G Ncells: No consensus whether or not there is a problem to solve, and if so its magnitude. More investigation needed.
- Need to ensure there is no ambiguity in the UE as to the NCL used, and in the network as to the NCL used by the UE when measurements are reported
- [GP-130511](#) CR 48.018 agreed to ensure the selected PLMN is indicated when a foreign / random TLLI is included in the UL UNITDATA

# rSRVCC (1/2)

- Handling of UE E-UTRA Capabilities in the CS domain (1/2)
  - **Alt1:** GERAN#56: GP-121320: proposal to define a short E-UTRA Capabilities to address GERAN limitations
    - Concern raised that this is up to RAN2 to define based on limitation in GERAN
  - **Alt2:** GERAN#56: GP-121301: proposal *not* to send the capabilities, but instead for the source BSS to notify the target eNB of some supported E-UTRA freq/bands based on measurement report from the MS in GERAN
    - Misc concerns raised on the proposal (violation of the source adapts to target principle, impact to eNB)
  - **Alt3:**
    - GERAN#56: GP-121326 proposal for the BSS to obtain the information from the SGSN
      - Misc. concerns raised that the BSC may have no PS connection during the CS call (even if the SGSN has the needed information) or may not have had one
    - GERAN#57: GP-130179: proposal to
      - Alternative 1: provision of E-UTRAN INTER RAT HANDOVER INFO to target eNB transparently through the core network – solution impacting CT1, CT4, RAN2, RAN3 groups (and SA2).
      - Alternative 2: restrict rSRVCC applicability to the support of inter-RAT PS Handover to E-UTRAN when the BSS can build the Source eNB to Target eNB transparent container

# rSRVCC (2/2)

- Handling of UE E-UTRA Capabilities in the CS domain (2/2)
  - LS from RAN2 in GP-130417. Reply in [GP-130562](#)
    - Limiting capabilities up to (and incl.) Rel-9 is acceptable by RAN2
    - Impact in GERAN on voice quality and call set-up need to be considered
  - GP-130391: Update of Alt2
  - GP-130400: Addresses the LS from RAN2. Investigation of the impact on call set-up delay and speech quality of sending UE E-UTRA Capabilities in GERAN (early classmark sending, classmark interrogation)
  - GP-130477: similar to GP-130400. [GP-130478](#) CR 44.018 postponed
  - GERAN2 view for now:
    - Call set-up time impact can be significant when using Early Classmark Sending with UE EUTRA capabilities (ref. GP-130400, GP-130477)
    - Impact to voice quality: ref to earlier work on SMS on FACCH (1SMS scenario comparable). Keep SA4 in the loop
- Note: the same issue exists for PS Handover to E-UTRA as of Rel-8

# TEI11

- Misc.

- GP-130413 CR 48.018 agreed: CR previously agreed but not implemented
- GP-130512 CR 48.018 agreed: Clarification of operator group GGSN – alignment with stage 2 (23.060)

# Rel-12



# TEI12 (1/2)

- GP-130382 proposal for PWS indication in connected mode
  - The proposal is updated vs the proposal seen in GERAN2#57, but is in principle similar
  - This proposal and associated CRs were rejected at GERAN2#57:
    - GERAN2 Conclusion: ETWS mechanism (namely through APPLICATION INFORMATION) has already been defined and can be used. No new mechanism needed.
    - GP-120172 CRs 44.018 rejected
  - GP-130383, GP-130384 CRs 44.060, 44.018 rejected
- Energy-efficient AGCH monitoring
  - Proposal for the MS to take into account the BSS max response time when matching an Immediate Assignment response with only the last transmitted Channel Request
    - i.e. means to avoid unnecessary monitoring of CCCH blocks
  - GERAN#55, #56: Misc. concerns expressed (concepts, evaluations contributed)
  - GERAN#57: GP-130155 provides further evaluation. Further work needed
  - GERAN#58: GP-130489 with additional evaluations
    - Input from network vendors encouraged as to how dynamic the information on BCCH can be. Misc. clarifications. More work needed

# TEI12 (2/2)

- E-UTRA Wideband RSRQ measurements
  - GERAN#56: no contribution other than a LS from RAN4 in GP-121352
  - GERAN#57: LS from RAN2 in GP-130087; Reply in GP-130226
  - GERAN#58
    - Reply LS from RAN4 in GP-130419
    - Some possible way forward discussed offline, but no conclusion could be reached.
    - Decision expected at GERAN#59
    - GP-130388, GP-130389, GP-130390, CRs 44.018, 44.060, Draft CR 24.008 postponed / noted

# Downlink Multicarrier (1/3)

- Working Assumptions: GP-130529 [PLENARY]
- GP-130457 (updated of GP-130215) Managing the increased risk of blocking for mobile stations in multicarrier mode
  - GERAN#57: More time needed on the proposed WA4, WA5
    - WA4: Fallback to single carrier configuration on PDTCH applies to the carrier with the highest assigned priority.
    - WA5: The regular fallback pattern is, similar to the paging group definition, determined by TLLI (instead of IMSI for paging) and BS\_PA\_MFRMS, resulting in the same fallback interval as the PAGING\_GROUP.
  - GERAN#58
    - WA4 endorsed: Fallback to single carrier configuration on PDTCH applies to the carrier with the lowest assigned number. (NOTE: first assigned carrier)
      - GERAN2 recommendation to have simple means to determine this carrier.
    - WA5 endorsed
- GP-130458 (update of GP-130217) Support of non-contiguous reception
  - GERAN#57: Concerns raised on multiband support – Plenary discussion
  - GERAN#58:
    - WA0 endorsed in GERAN1: *Inter-band reception* and non-contiguous intra-band reception is *optional for a MS to support*, in addition to the support of DLMC (i.e. either inter-band reception or non-contiguous intra-band reception can be supported by a DLMC MS). The two reception modes are independently indicated in the MS capability.

# Downlink Multicarrier (2/3)

- GP-130459 Carrier Selection
  - GERAN2 to accommodate necessary restrictions derived by GERAN1 to avoid waste of radio resources
- GP-130461 Flexible resource assignment
  - Concerns expressed by UE vendors against the assumption implying to support 16 carriers
    - Separate indication of max nr. of supported carriers (together with bandwidth) to be considered
  - WA on indicating the nr of timeslots across carriers conditionally agreed
- GP-130462 (update of GP-130120): PDAN message capacity
  - GERAN#56: GP-121277 proposal for a new PDAN message to accommodate up to 4 carriers
  - GERAN#57: proposal to go up to 16 carriers (WA4 partly agreed in WG1) requires further discussion
    - UL/DL imbalance must be addressed: Polling/ack /nack efficiency
    - No agreement on simultaneous multiband operation
  - Misc. comments and clarification
  - GERAN#58
    - [WA4](#) endorsed: upper limit of 16 carriers for DLMC configuration (ref discussion on GP-130461)
    - [WA5](#) endorsed: reporting per Unique Frequency Parameter Set

# Downlink Multicarrier (3/3)

- GP-130460 Working Assumptions
  - WA50: Carrier specific TFI open. More time needed to investigate this (DL/UL)
    - Concerns expressed primarily for the uplink by some UE vendors
    - Revision in GP-130529 (Plenary)
- GP-130463 CR 43.064 noted
  - Consolidation of working assumptions required before agreeing Stage 2
  - Work in progress
- GP-130464, GP-130465 CRs 45.002, 45.008 noted without presentation
- GP-130467 draft CR 24.008 noted
  - Update needed once concluding on needed capabilities
- GP-130393 CR 44.060 postponed
- GP-130394 CR 44.018 postponed
- RLC protocol considerations
  - GP-130510 Simulations of increased SNS and PDAN space
    - Results anticipated vs. EGPRS Rel-99 ( $WS = f(\text{nr. of timeslots assigned})$ )
    - The use of Rel-7 FANR (PAN) should be investigated as a means to avoid RLC window stalling, while allowing UL data transfer
  - GP-130496 RLC Protocol extension, proposed to address the results shown in GP-130510
    - Work in progress

# MSRD VAMOS

- Proposed Working Assumptions in GP-130443
  - If WA2 (*first part*) is endorsed in GERAN1 i.e. that a VAMOS III MS shall support VAMOS II performance requirements then WA11 ought to be such that the new VAMOS support indication ('11') is that the MS supports both VAMOS III and VAMOS II
    - NOTE: In a Pre-Rel-12 network, '11' is interpreted as '10' (VAMOS-II supported)
  - Revision of the document expected in GERAN1
- **GP-130449** Draft CR 24.008 noted
  - To be updated according to the above at a later meeting
  - Will be considered for endorsement towards the end of the WID
- **GP-130450** Workplan noted
  - For GERAN1 to review

# DL MIMO for EGPRS(-2A)

- GP-130484 Draft TR
  - Contributions invited on GERAN2 aspects
  - Segmentation/re-assembly to be reflected under RLC/MAC section
  - RLC and MAC aspects to be distinguished from each other
- Workplan in GP-130513
  - TR expected for information (>60% complete) at GERAN#60

# Study GERAN EMDA (1/3)

- New version of TR 43.802 in GP-130530 [Plenary]
- Workplan: GP-130531 [Plenary]
  - Telco: 20<sup>th</sup> June 2013, 9-11am CEST
- GERAN#57
  - Hybrid Packet Channel
    - Further evaluation in GP-130190. Some concern raised on the need for the proposal.
    - GP-130191, GP-130192 CRs 44.018, 44.060 postponed
  - OSAP
    - Further discussion in GP-130153, GP-130166, GP-130207. No agreement on the papers.
    - Some concerns raised that the “wall” scenario (4CCCHs with IPA) aimed by OSAP is not realistic and is not being addressed by the agreed assumptions in the EMDA study (with the IM model)
  - Improved RR usage / Fast TBF re-establishment
    - Further discussion/evaluation in GP-130143, GP-130154. No agreement on the papers.
    - Some concerns raised on the need for FTR and that it would not address the “wall” scenario. Similar to HPCH with the current assumptions, moving the load off the CCCH seems not justified
  - USF extension
    - Further discussion in GP-130152. Some concerns raised on the quoted references/conclusions in the paper that are not in line with earlier discussions
    - No conclusion USF space is a bottleneck



# Study GERAN EMDA (2/3)

- GERAN#57: Conclusion based on the IM+Web Model in TR 43.802:
  - No further CCCH improvements are seen necessary at this stage based on this model and the studies made
  - USF extension: no consensus USF is a bottleneck
  - Further PDCH evaluation needed
  - Operators are invited to contribute whether additional scenarios should be studied
- GERAN#58
  - GP-130386 update of QQ chat trace statistics: companies views invited
  - Some concerns expressed by one company on the previous conclusion (above) reached on EMDA and the evaluations made (questioning the traffic model agreed at GERAN#55, documented in GP-121100)
  - GERAN2 open to adding new traffic models and/or refining simulation assumptions if necessary, under consensus
    - GERAN#54 agreement is still valid: Need for a common set of simulation assumptions that allows comparison between different proposals. This does not preclude companies bringing in additional simulations based on different assumptions, but at minimum the common assumptions must be used
  - Operators invited once again to contribute additional scenarios as required
  - GP-130482: proposal for further PDCH evaluation
    - Agreement to:
      - Introduce an IM session arrival rate of 1/s (will be verified until GERAN#59)
      - TBF delay release timer of 2s, not precluding the BSS to release a TBF when needed

# Study GERAN EMDA (3/3)

- GP-130385 proposal for “implicit TBF release”
  - Misc. questions on what the problem is to solve, and on the proposal itself
  - Evaluation pending

# Other

- LS from SA2 on MTCe in GP-130093 (GERAN#57)
  - GP-130108: identifies that only the proposals in the TR for “*Extended DRX in idle mode*” and “*Wait until better coverage*” are relevant in GERAN
  - GERAN#57: Further investigations needed in GERAN2. A detailed response will be provided at GERAN#58. Reply LS in GP-130249
  - GERAN#58:
    - GP-130438: Extended DRX in Idle mode, for UEPCOP
    - GP-130473: Longer Paging Cycle for MTC Use case
    - GERAN2 view: extending the paging cycle *alone* does not yield benefits and would not be worthwhile. Other idle mode tasks could be considered for optimization to yield battery savings – further investigation needed
    - Reply LS to SA2 cc RAN, RAN3, SA in [GP-130535](#)

# Outgoing LSs

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- Source GERAN WG2
  - GP-130503 LS to SA2 on Enabling HO restrictions to E-UTRAN for rSRVCC
  - GP-130562 LS to RAN2 cc SA2, SA4, CT1, CT4, RAN3 on Provisioning of E-UTRA Radio Capabilities in GERAN
  - GP-130537 LS to RAN3 cc CT1, SA2 on NAS Reject messages in MOCN
- Source GERAN
  - GP-130535 LS to SA2 cc RAN, RAN3, SA on requesting input on MTCe solutions [Plenary]

# Next meetings

# Next meetings

- GERAN2#59 27 – 29 August 2013, Sofia, Bulgaria
- GERAN2#60 19 – 21 November 2013, Zhuhai, PRC

# After '1 0 0 0' years and '1 1 0 1 1 1' meetings



PACKET CHAIR CHANGE ORDER

- Keep up the good spirit!
- Bring back social events!
- Don't host the meetings in Chinese!
- Good luck Yang! :)



# Thanks for your support during all these years!

- Thanks to Gert!
- Thanks to all delegates!
- Thanks to Andrew, Jacques and Andrew again!
- Thanks to all our hosts and meeting organizers!



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