

3GPP TSG GERAN2#40bis

Jeju, South Korea, 13-16.01.2009

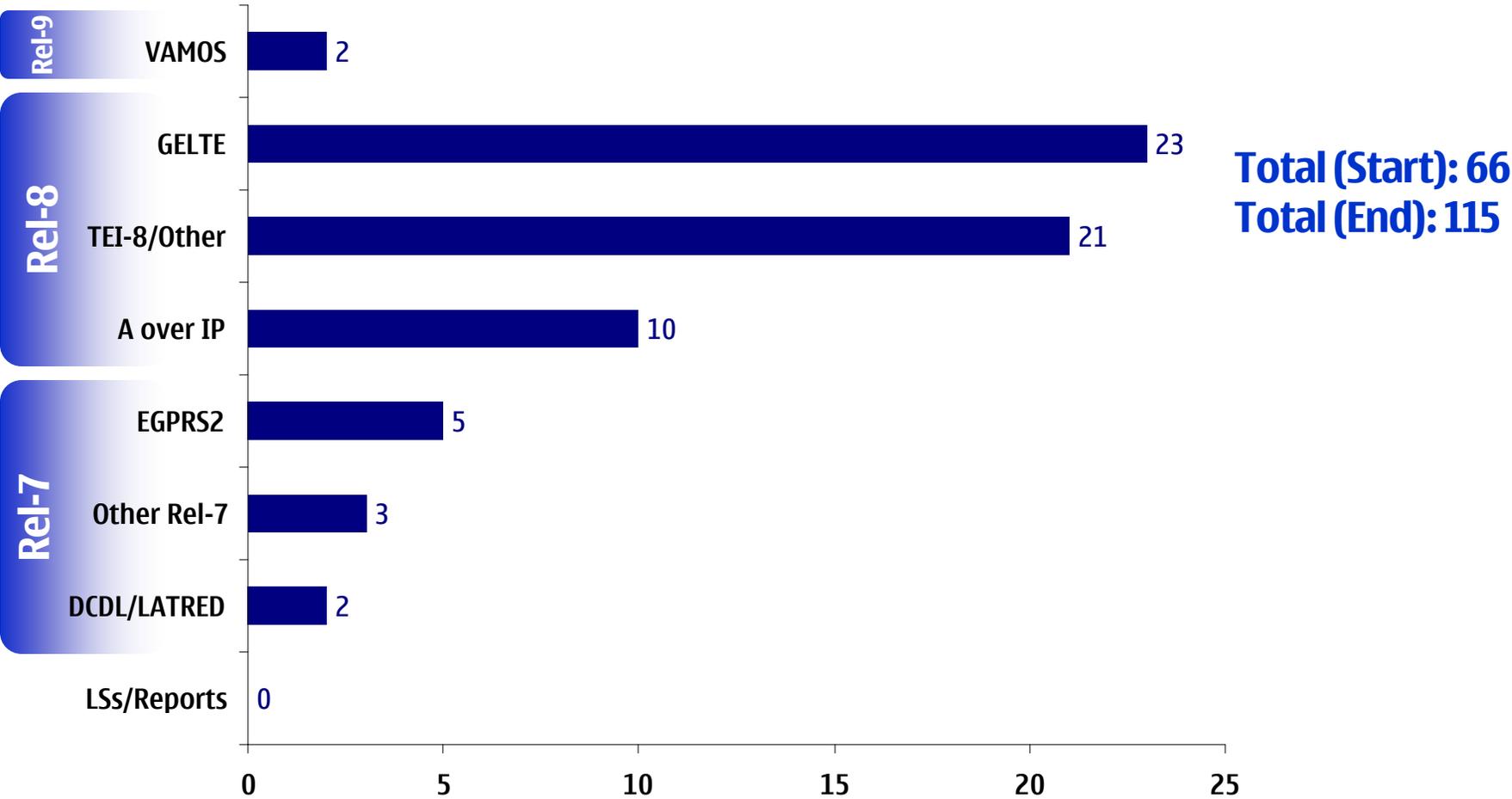
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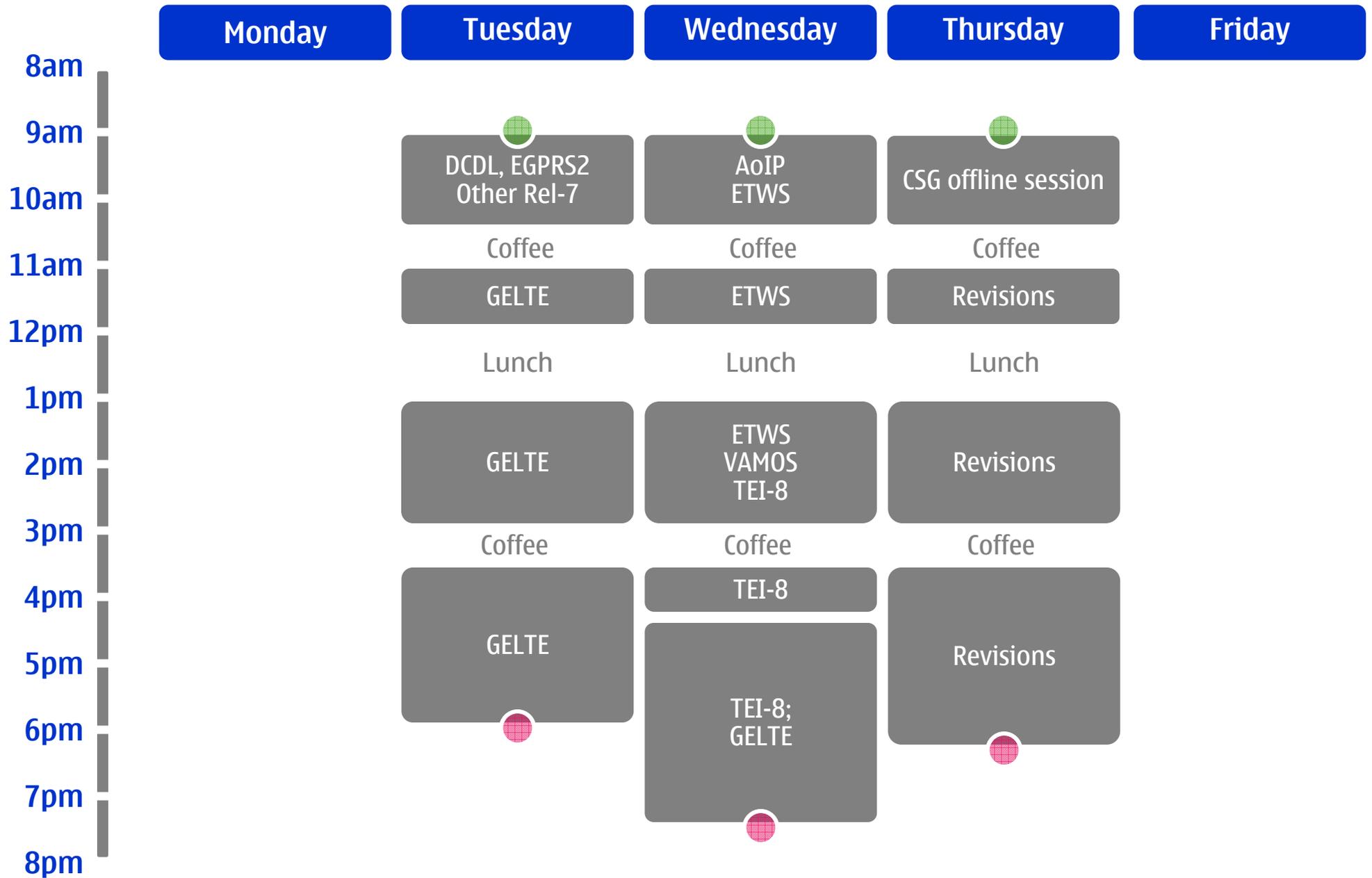
Chairman's summary

Chairman: Guillaume SÉBIRE (Nokia-Devices/Helsinki)

Secretary: Gert THOMASEN (MCC)

Incoming Contributions per Agenda Item





Rel-7 – Dual Carrier Downlink / Latency Reductions

- **G2-090058, G2-090059** CR 44.060 agreed: removal of misc. inconsistencies

Rel-7 – EGPRS2 (RED HOT / HUGE)

- **Consistent and unambiguous definitions of modulation and coding schemes and families incl. families with padding**
 - **G2-090072** CR 44.060 agreed (Rel-7)
 - **G2-090061** CR 44.060 agreed (Rel-8 version, not an exact mirror)
 - **G2-090062** Draft CR 43.064 noted: more changes expected for GERAN#41
- **Inclusion of TLLI in EGPRS2 coding schemes (uplink)**
 - Discussions confirmed that the retransmission of a block using EGPRS2 coding scheme *after contention resolution* that was originally transmitted with EGPRS coding scheme *before contention resolution (i.e. incl. TLLI)* shall include the TLLI
 - **G2-090073, G2-090074** CR 44.060 rejected for it is felt the current specification is already clear enough
- **GERAN#40: Link Quality Reporting (RED HOT)**
 - Pending progress in GERAN1 on reporting for the most relevant modulation and coding schemes (or only based on nr. of received blocks)

Rel-7 – Misc.

- **G2-090099, G2-090100** CR 44.060 agreed to correct that FTA applies in cases when Dynamic Allocation with RTTI is used

Rel-8 – GERAN/E-UTRAN Interworking (1/7)

- **SPID, Redirection and Service Handover**

- **Subscriber Type (SPID)**

- GERAN#40 working assumptions in **GP-081871**
- **G2-090012** on provision of SPID to BSS and setting of dedicated priority to individual MS
 - Generally acceptable, however the proposed coding could be optimized
- **G2-090067** on transmission of dedicated priorities in GERAN
 - Proposals 1 and 3 to be investigated further
 - Proposals 2 and 4 seen acceptable

- **Redirection / Service Handover**

- **CS Domain scenario** i.e redirection
 - **G2-090065** CR 48.008 postponed
 - The proposal to include EUTRAN to Service Handover IE (MSC>BSC) was questioned given there is no CS HO to LTE and given the SPID/Dedicated priority are readily available
- **PS Domain scenario** i.e. service handover
 - **G2-090096** CR 48.018 agreed: addition of E-UTRAN to SERVICE UTRAN CCO

Rel-8 – GERAN/E-UTRAN Interworking (2/7)

- **Inter-RAT PS Handover**

- **Generic Transparent Containers**

- GERAN#40: Alignment needed as per SA2 and RAN3 decision to use generic transparent containers (Source to Target transparent container and Target to Source transparent container) instead of RAT specific transparent containers (e.g. Source RNC to Target RNC transparent container)
 - **G2-090078** Draft CR 43.129 endorsed
 - **G2-090079** CR 48.018 agreed

- **GERAN#40:** conclusion to define a separate capability for PS Handover between GERAN and E-UTRAN

- Other capabilities to be considered for GERAN2#40bis. Next CT1 is after GERAN2#40bis
 - **GP-081675, GP-081687** Draft CRs 24.008 noted
 - See next slide

Rel-8 – GERAN/E-UTRAN Interworking (3/7)

• MS E-UTRAN Capabilities

- **G2-090077** proposes a number of default and optional capabilities for mobility with E-UTRAN
 - Concerns raised that the proposal is not aligned with GR-070030 (output from RAN/GERAN ad-hoc, noted in GERAN#36) which proposed that Cell reselection from GERAN packet transfer mode using NC0, NC1 or NC2 to E-UTRAN LTE_IDLE be mandated in terminals
 - Concerns also expressed with having
 - NC0-like mobility in packet transfer mode optional
 - E-UTRAN measurements and reporting optional in dedicated mode / dtm
 - It should be noted however that:
 - RAN#42 approved **RP-081131** recommending **RP-081089** for the definition of UE capability signalling
 - In particular **RP-081089** defines Group 9 Low Priority GERAN to E-UTRA state transitions where the following is listed:
 - GERAN GSM_Connected to E-UTRA RRC_CONNECTED state transition
 - GERAN Packet transfer mode to E-UTRA RRC_CONNECTED state transition
 - GERAN Packet transfer mode to E-UTRA RRC_IDLE state transition

Rel-8 – GERAN/E-UTRAN Interworking (4/7)

• Handling of E-UTRAN UE RAC

- Aim at providing the BSS with E-UTRAN UE RAC for potential HO to E-UTRAN (E-UTRAN UE RAC is not used by the BSS). The following scenarios are covered:
 - At handover to GERAN, E-UTRAN UE RAC are sent to the target BSS in the Source to Target transparent container if available
 - At ATTACH COMPLETE / RAU COMPLETE from the MS to the SGSN, for future propagation to BSS upon PFC creation
 - Upon PFC creation, in Create BSS PFC PDU from the SGSN to the BSS
- **G2-090109** Draft CR 24.008 endorsed
 - LS to CT1 cc SA2, RAN2 in **G2-090110**
- **G2-090113** CR 48.018 agreed

Rel-8 – GERAN/E-UTRAN Interworking (5/7)

• Measurement Reporting

- **G2-090003** discussion to introduce some RAT reporting prioritization for EMR to allow e.g. prioritizing reporting non-serving RATs over serving RAT
 - One company supporting the principle of the paper to allow prioritization based on e.g. service requirements
 - Concerns raised that prioritizing non-serving RAT over serving RAT may impair mobility, and that “high data rate” as such may not be a valid reason to prioritize E-UTRAN over GERAN for other factors may be taken into account for “service-based handover” (e.g. load conditions)
 - To be discussed in GERAN1
- **G2-080004** provides some additional evaluation of the pseudo white list (PWL)
 - PWL was proposed at GERAN#40 (GP-081475) – It is constructed based on previously reported cells and maintained in the network and the mobile station as per each report. A reported cell may be identified by a reference to the PWL if that cell is included in this list
 - **GERAN#40**
 - Concerns raised with the complexity to manage the list of reported cells in the MS and BSS
 - Concerns raised with the recovery mechanism: missing a report in the network (even if it would allow more NCells) makes the next report undecodable and requires additional signalling to request a new report
 - More investigations needed
 - **GERAN2#40bis**
 - Concerns raised at GERAN#40 reiterated
 - It was requested that evaluations need to take PACCH/U errors into account to address the efficiency of the recovery mechanism and impact on PWL reporting performance and signalling (A lost report using PWL reporting implies the next PWL-based report will be un-decodable and requires additional signalling to request a new report)

Rel-8 – GERAN/E-UTRAN Interworking (6/7)

• SRVCC

- **G2-090055** CR 48.008 postponed: proposal to include eNB id in HO Request (MSC>BSS) and HO Request Ack (BSS>MSC) within the *mandatory* Cell Identifier IE, thereby violating principles that SRVCC should avoid any impact to GSM network (GERAN, CN)
 - Recommendation to find a seamless way to address the issue of a mandatory Cell Identifier IE. The possible use of Cell Discriminator cause value “0011” (No cell is associated with the transaction) should be investigated
 - Note that SRVCC is one way only i.e. if HO fails in the target cell there is no way back to the source cell

• CSG Cells Handling

- Focus in Rel-8 is on idle mode as previously agreed
- GERAN2 working assumptions and open issues in **G2-090114** to be discussed in GERAN#41 plenary

• Procedures

- **G2-090080** CR 44.060 agreed: introduction of E-UTRAN NCell and Measurement Information
 - Abnormal cases to be investigated

• Misc corrections

- **G2-090006** CR 44.018 postponed: to allow indexing of E-UTRAN frequency information in Cell selection indicator after release of all TCH and SDCCH IE. Need unclear.
- **G2-090017, G2-090018** CRs 44.018, 44.060 postponed: Correction to Repeated E-UTRAN Neighbour Cells Struct

Rel-8 – GERAN/E-UTRAN Interworking (7/7)

- **G2-090011** highlights an issue with some **GSM-only terminals** crashing upon use of SI2 quarter in the network (i.e. incl. 3G parameters). A recommendation is proposed to define a new mechanism for conveying LTE NCell information in GERAN, which does not make use of SI2 quarter, to avoid the same problem with those terminals when LTE is deployed
 - The problem highlighted has not been seen in any other dual-mode GSM/UMTS networks
 - The workaround will increase the complexity of future GSM/LTE terminals
 - The workaround will require new test cases and is no guarantee it will be properly implemented
 - The workaround yields increased signalling in the network
 - The problem highlighted is only temporary (function of replacement rate)
 - **GERAN2 Conclusions**
 - Reluctance to proceed as per the proposal
 - Recommendation to define in GCF new test cases for GSM-only terminals to cover the issue raised in the paper in order to avoid new GSM-only terminals be built that would have the same problem
 - Other means to tackle the problematic terminals on the field is outside 3GPP scope
 - GERAN2 recommends these conclusions be endorsed at GERAN#41 plenary

Rel-8 – TEI-8 (1/3)

- **EFTA** i.e. to allow more Rx/Tx timeslots than provided by FTA (FTA allowed the “Sum” parameter of a Multislot Class to apply on an allocation basis rather than assignment basis)
 - **G2-090036** addresses some of the concerns raised at GERAN#40
 - Concerns still raised on missing evaluation of system capacity when EFTA is used i.e. muxing between users
It was clarified however that the proposal aims primarily at optimizing peak throughput for single users (when muxing is not used)
 - Concerns raised on potential negative impact to FANR performance
 - NCell measurements will potentially impact the performance of the proposal given the necessity to comply with measurement gaps
 - More investigations needed – GERAN1 review needed
 - **G2-090037** Draft CR 24.008 noted without presentation
 - **G2-090038** CR 44.060 postponed without presentation
 - **G2-090039** Draft CR 45.002 noted without presentation

Rel-8 – TEI-8 (2/3)

- **GAN**

- **G2-090063** Draft CR 43.318 endorsed: Clarification to ensure that when GAN registration is not possible within a PLMN, it may be attempted again using other PLMN in the PLMN list if available (list received in GA-RC REGISTER REDIRECT message)
- **G2-090091** Draft CR 43.318 content endorsed: Clarification that GANC selection process occurs if there is more than one (>) GANC/PLMN pair indicated by the default GANC. Clarification that at GAN registration, the GANC selection process attempts registration with the currently registered PLMN provided it is in the GAN PLMN list indicated by the default GANC

Rel-8 – TEI-8 (3/3)

- **Misc.**

- **G2-090092** CR 44.018 agreed: editorial corrections
- **G2-090047** CR 44.060 agreed: misc editorial corrections
- **G2-090097** CR 48.008 postponed: Clarification for termination of Handover Resource Allocation to clarify the behaviour of the target BSC when a CLEAR COMMAND or a reset message is received during an ongoing Handover Resource Allocation procedure
 - Time requested to double-check the proposal

- **UTRAN TDD Interworking**

- Concerns raised in **G2-090008** on the introduction in GERAN#40 of RSCPmin for interworking with UTRAN TDD (TD-SCDMA specifically) – Recommendation to first reach a decision in GERAN1 before GERAN2 proceeds with the proposal
- **G2-090009** CR 44.018 postponed
- **GP-090010** CR 44.060 postponed

Rel-8 – A interface over IP

- **3GPP TS 48.103**
 - **G2-090015** CR 48.103 agreed: misc. corrections
- **G2-090083** CR 48.008 agreed: misc editorial corrections and removal of inconsistencies
- **G2-090101** CR 48.008 agreed: misc corrections
- **G2-090085** CR 48.008 postponed: requirement being checked offline to mandate Config NB Code 1 for NB-AMR for an AoIP BSS (see also 3GPP TS 26.103)
- **G2-090086** CR 48.008 agreed: inclusion of GSM-FR in Codec List (MSC preferred) when there are no common codecs between the Codec List (BSS supported) and the Codecs supported by the MS
- **Reset of TDM and IP calls**
 - Desired functionality:
 - Reset of (all) IP calls independent of TDM calls with a single message
 - Reset of all TDM calls independent of IP calls with a single message
 - Reset of all IP and TDM calls with a single message
 - GERAN#40 agreement that RESET RESOURCE is only applicable to IP calls
 - A proposal in **G2-090044** to allow reset of TDM calls with RESET RESOURCE was not accepted

Rel-9 – VAMOS

- **G2-090041** Draft CR 44.018 noted
 - No show-stopper with the proposed signalling
 - VGCS could be considered if so desired by GSM-R
- **G2-090042** Draft CR 45.002 noted

Rel-9 – Other (1/2)

- **ETWS**

- **GERAN2 agreement on the following behaviour outlined in G2-090108 (general principles of that paper agreed)**
 - **Idle mode:** Primary notification sent on PCH in Paging Request Type 1 message using specific indication in P1 Rest Octets only
 - Primary notification segmented across several Paging Request Type 1 messages if required
 - MS enters non-DRX after reception of such message including primary notification for reception of missing segments – guard timer needed
 - **Dedicated mode:** Include primary notification in APPLICATION INFORMATION on main DCCH
 - **Packet transfer mode:** new distribution message on PACCH for delivery of primary notification, using (extended) RLC/MAC control message segmentation when required
 - **Duplicate detection:** CBS message ID and serial number to be used for this purpose
 - Whether these will be directly introduced in 44.018/44.060 specs or references will be made to CBS specs is to be further investigated
 - Transitions of RR mode to be addressed in the specification e.g. RR connection establishment takes precedence over Primary Notification reception in idle mode
- **G2-090088** CR 44.018 postponed: idle mode
- **G2-090089** CR 44.018 postponed: dedicated mode
- **G2-090032** CR 44.060 postponed: packet transfer mode
- **Secondary Notification**
 - More information needed on the size of the secondary notification message to see whether any improvement is necessary over existing mechanism (i.e. CBS, SMS PTP)
 - An assumption is that primary notification will be passed to upper layers. Upper layers will then trigger further action as appropriate – this is believed not to have any impact on GERAN specifications, unless improvements are seen necessary

Rel-9 – Other (2/2)

- **Multiplexing enhancements for single TBF operation**
 - At most only one RLC entity per RLC mode per direction (i.e. one RLC entity supported per RLC mode)
 - **G2-090093** CR 44.060 postponed
 - **G2-090094** CR 44.018 postponed
 - **G2-090052** Draft CR 24.008 noted
 - Globally stable but more work needed (e.g. abnormal cases, coding, PFC handling)

AOB

- None

Outgoing LSs

- **G2-090110** LS to CT1 cc RAN2, SA2 on Conveying E-UTRAN Radio Access Capabilities Information
- **NOTE:** Reply LS to SA3, RAN2, RAN3, CT1, CT4 on preventing inter-RAT HO for UE with SIM access – work in progress
 - See original LS in GP-081753
 - Mechanism for idle mode is expected to be under MS control
 - Mechanism for connected mode is expected to be under network control

Future meetings

- **GERAN #41** **16 – 20 February 2009** **Malta, Europe**
- GERAN #42 11 – 15 May 2009 Shenzhen, China
- GERAN #43 31 August – 4 September 2009 TBD, North America
- GERAN #44 16 – 20 November 2009 Sophia Antipolis, France