3GPP TSG GERAN2#38

Malaga, Spain, 13 – 15 May, 2008
Chairman's summary

Chairman: Guillaume SÉBIRE (Nokia-Devices/Helsinki)
Secretary: Gert THOMASEN (MCC)

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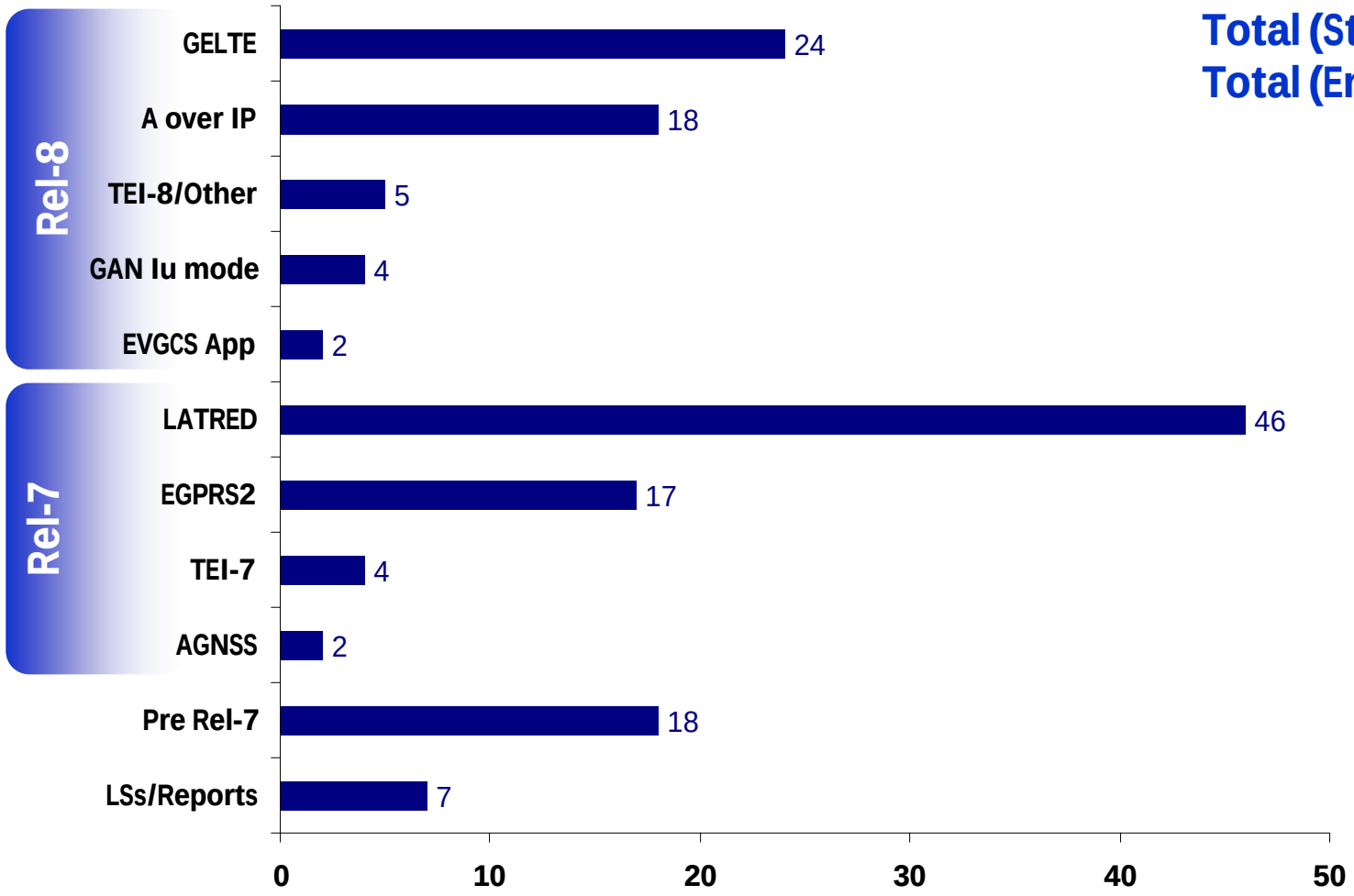
Incoming Contributions per Agenda Item



Total (Start): 147 (161)
Total (End): 269

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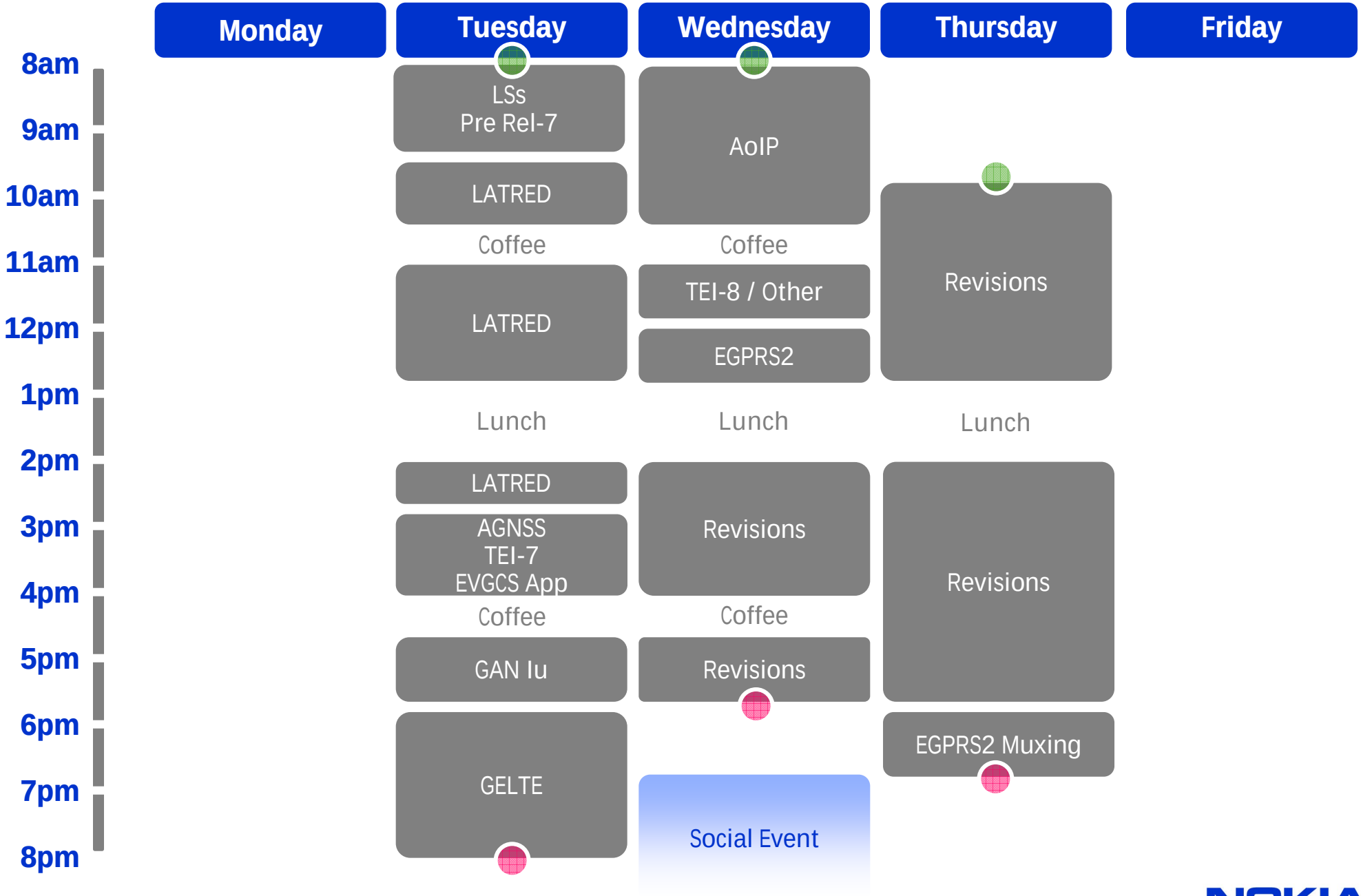

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Pre Release 7 Corrections

- **GAN**
  - **GP-080846, GP-080847, GP-080845** CR 43.318 endorsed (Rel-6+): MS deregistration after handover from GAN to GERAN/UTRAN
    - Previously discussed in GERAN2#37bis. Deregister message to be sent when the MS is leaving or is about to leave GAN coverage and not necessarily after the GA-CSR connection release (A/Gb mode: Rel-6+) / GA-RRC connection release (Iu mode: Rel-8)
    - **GP-080435, GP-080436** CR 44.318 conditionally approved to the approval of stage 2 in GERAN#38 *(A/Gb mode)*
    - **GP-080437** CR 44.318 conditionally approved to the approval of stage 2 in GERAN#38 *(A/Gb mode and Iu mode)*
    - Test specification will be updated in GERAN#39
  - **GP-080717** Discussion on supplementing clarification of 3G Cell Identity (GAN)
    - IOT issues identified due to ambiguous definition in GAN of 3G Cell Identity and the UTRAN Cell Identifier List IEs. Proposal in **GP-080717** endorsed
    - **GP-080803, GP-080804, GP-080805** CRs 44.318 approved (Rel-6+)
  - **GP-080689, GP-080690, GP-080806** CRs 44.318 approved (Rel-6+): fix of 3GECS field length in GAN Control Channel Description IE
- **Misc.**
  - **GP-080807, GP-080808, GP-080809** CRs 44.060 approved (Rel-6+): Definition of the Control_Ack field in PS HO Command and Packet CS Release messages to account for whether MTBF is supported or not
  - **GP-080810, GP-080811, GP-080812, GP-080813, GP-080814** CRs 04.06, 44.006 postponed (R99+): randomising fill bits in layer 2 messages on SACCH, FACCH, SDCCH
    - To be investigated further
    - Compatibility with equipments on the field to be checked

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Rel-7 – DTM Handover

- **None**

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Rel-7 – VGCS Enhancements

- **None**

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Rel-7 – Dual Carrier Downlink

- **None**

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Rel-7 – RED HOT / HUGE

- **GP-080905, GP-080906** CR 44.060 approved
  - Definition of the formats for the EGPRS2 combined RLC/MAC headers. According to GERAN2#37bis decision: single header format for both FANR/no FANR
- **Pulse shape signaling for EGPRS2-B Uplink**
  - GERAN1 agreement to introduce the wider pulse shape with tighter spectrum mask
  - **GP-080907, GP-080908** CRs 44.060 approved: introduction of pulse shape signaling
- **EGPRS/2-A/2-B multiplexing**
  - GERAN2 endorsed the principles of the proposal outlined in **GP-080934** (CR 43.064)
  - **GP-080934** CR 43.064 noted
  - **GP-080935** CR 44.060 noted
- **LQM Reporting (RED HOT)**
  - **GP-080940, GP-080941** CRs 44.060: corrections to EGPRS2 timeslot measurements
    - Plenary
  - **GP-080890, GP-080891** CR 44.060 Clarification of the reporting of mostly received modulations
    - Plenary

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Rel-7 – Latency Enhancements (1/6)

- **Consistent and unambigous use of terminology for Latency Reduction**
  - **GP-080819** CR 43.064 endorsed
  - **GP-070815, GP-080816** CRs 44.060 approved
  - **GP-080741, GP-080742** CRs 44.018 approved

- **FANR Support for Terminals not able to support RTTI due to Multislot Class limitations**
  - Raised in GERAN2#37bis
    - As currently specified an MS supporting LATRED shall support both FANR and RTTI
    - Concern raised that this requirement prevent the usage of multislot classes where FANR could be used but RTTI would not be possible
    - Some configurations may prohibit the use of RTTI e.g. in DTM an MS might not be able to use RTTI due to DTM MSC limitations, while it would be able to use RTTI in packet transfer mode.
    - To be investigated
  - GERAN2 agreement to allow FANR support in DTM for a LATRED capable MS that cannot support RTTI configurations in DTM due to multislot class limitation
  - GERAN2 agreement not to allow FANR support in PTM for MS of which the multislot class does not allow RTTI configurations
  - Agreement to clarify this for the Reduced Latency capability bit in MS RAC IE and Channel Request Description 2 IE (used in DTM Request)
    - Reduced Latency Capability bit set to '1' in both these IEs for a Reduced Latency capable MS even if multislot class limitations in DTM prevent RTTI configurations in DTM
  - **GP-080887, GP-080888** CRs 44.018 approved: modifications to channel request description 2 IE (used for DTM Request)
  - **GP-080892** Draft CR 24.008 endorsed: clarification to MS RAC IE. LS to CT1 in **GP-080881**

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Rel-7 – Latency Enhancements (2/6)

- **One Phase Access**
  - **GERAN2#37bis: Working assumption** based on G2-080196 with BTTI, RTTI configurations treated with equal priority
  - **GP-080885, GP-080886**: CRs 44.060 postponed
  - **GP-080820, GP-080821**: CRs 44.018 postponed
  - **LATRED Uplink TBF Assignment on CCCH**
    - **GP-080913, GP-080914:** CRs 44.018 approved

- **Misc.**
  - **GP-080828, GP-080829** CRs 44.060 approved: corrections to Dynamic Allocation 2 Struct in Packet Uplink Assignment and Packet Timeslot Reconfigure messages
  - **GP-080826, GP-080827** CRs 44.060 approved: corrections to TBF starting time
  - **GP-080838, GP-080839** CRs 44.060 approved: consistent encoding of RRBP values pointing to the same configurations, according to GERAN2#37bis agreement
  - **GP-080681, GP-080682** CRs 44.060 rejected: support of extended uplink TBF mode for Reduced Latency terminal. The support of Feature Package 1 is already implied by the support of Reduced Latency hence extended uplink TBF mode will be supported for Reduced Latency capable terminals. No need for the CR

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Rel-7 – Latency Enhancements (3/6)

- **Clarification to TBF Assignment for LATRED**
  - **Discussed in GERAN2#37bis**
    - BTTI and RTTI TBFs for one MS addressed in a message instance
      - Detailed impact on messages to be investigated before a decision is made
    - BTTI and RTTI uplink TBFs assigned on one carrier to one MS
      - Either BTTI USF mode or RTTI USF mode can be used as per current spec. A proposal to introduce a restriction to use BTTI USF mode only was objected to.
    - BTTI and RTTI uplink TBFs assigned on two carriers to a DCDL capable MS
      - Either BTTI USF mode or RTTI USF mode can be used for RTTI TBFs as per current spec. A proposal to introduce a restriction to use BTTI USF mode only was objected to.
    - RTTI TBFs on one carrier and RTTI TBFs on other carrier using different USF mode
      - Allowed as per current specification (however signaling not supporting that currently): impact on signaling to be investigated
  - **GERAN#38**
    - Impact on signaling as outlined above, evaluated in **GP-080526** (different USF modes for RTTI TBFs in a given message; BTTI and RTTI TBFs in same messages)
    - **GP-080527** CR 43.064 endorsed including the assumptions above
      - Single USF mode per TBF
      - Different USF modes can be assigned for different uplink TBFs on completely different PDCH(s).
    - **GP-080533, GP-080534** CRs 44.060 approved

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Rel-7 – Latency Enhancements (4/6)

- **(TB)FANR**
  - **GP-080817, GP-080818** CR 44.060 approved: Clarifying FANR behavior when a concurrent TBF in the uplink direction is not assigned
    - FANR remains enabled when there is no concurrent TBF in the other direction that could be used to insert PAN
    - Network may assign a downlink TBF using FANR independent of whether a concurrent uplink TBF is assigned or not
    - Keep using FANR RLC/MAC header
    - If polled for a PAN, and no data to send, send a EPDAN/EPDAN2
  - **GERAN2#37bis:** Abnormal cases must be defined to address the case of a TBF assigned by the network violating the rule "all concurrent TBFs assigned to an MS shall use FANR or none"
    - **GP-080723** CR 44.060 approved to define the network requirement to ensure with this rule is met. Abnormal cases will be covered in future meeting(s)
  - **GP-080919** CR 45.010 endorsed: Aim to define the reaction time for PDAN when in event-based FANR

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Rel-7 – Latency Enhancements (5/6)

- **(TB)FANR**
  - **Time-based FANR**
    - Further analysis provided in **GP-080706**
    - **GP-080707, GP-080708** CRs 44.060 approved
  - **PAN Robustness**
    - Issue resolved in GERAN2#37bis with endorsement for RLC acknowledged mode to:
      - Advance V(A) solely based on PUAN/PDAN
      - Introduce new state in V(B): Tentative Ack to identify blocks that have been ack'ed by a PAN and that are thus subject to preemptive retransmissions
      - Ignore PAN inconsistent with current V(B)
    - **GP-080836, GP-080837** CRs 44.060 approved defining scenarios when to ignore inconsistent PANs
    - **GP-080513** PAN error performance and L1 processing presented – no comments: will be seen in GERAN1

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Rel-7 – Latency Enhancements (6/6)

- **RTTI**
  - **GP-080915, GP-080916** CR 44.060 approved: “Same as before RTTI configuration”
    - Proposal to avoid indicating PDCH pair allocation if unchanged in packet transfer mode
    - Abnormal cases will treated in next meetings
  - **GP-080704, GP-080705** CR 44.060 approved: clarification on transmission of distribution messages and PACCH messages in RTTI configurations
    - MS behaviour defined

  - **LQ Measurements in RTTI configuration**
    - Pending GERAN1 progress
    - **GP-080524** CR 43.064 noted
    - **GP-080531, GP-080532** CRs 44.060 postponed

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Rel-7 – PS Conversational

- **None**

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Rel-7 – PS HO GAN ⇔ GERAN/UTRAN

- **None**

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Rel-7 – A-GNSS

- **GP-080917** CR 44.031 approved
  - Removal of ambiguity with Code Phase Ambiguity
- **GP-080575** CR 44.031 approved
  - Corrections to GANSS signal ID and reference measurements

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Rel-7 – LCS Enhancements for LBS

- **None**

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Rel-7 – A-GPS Minimum Performance Requirements

- **None**

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Rel-7 – TEI-7

- **GP-080842, GP-080843** CR 44.060 approved: NPM Transfer Time correction in PACKET TIMESLOT RECONFIGURE message
  - Clarifies that the transfer time only applies in case of assignment of a new uplink TBF (while a concurrent DL TBF is assigned)

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Rel-8 – GAN Iu mode

- **GP-080844** CR 43.318 endorsed:
  - Alignment with 44.318 and Endorsement of previous RAN2 feedback
  - Already seen in G2#37bis
- **GP-080556** CR 44.318 approved: misc. corrections
- **GP-080882** Security considerations for GAN Iu mode
  - Contents endorsed - Some issues remain to be investigated
  - LS to SA3, RAN2, RAN3, CT1 in **GP-080883**

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Rel-8 – GERAN/E-UTRAN Interworking (1/3)

- **Misc.**
  - **GP-080522** Discussion on priority-based scheme for GERAN
    - GERAN1 feedback needed
  - **GP-080577** Introduction to CR 45.008 provides some backgrounds on parameters (e.g. cell reselection thresholds) that may have to be signalled for GERAN/E-UTRAN interworking
  - **GP-080696** Considerations to CS Fallback to GERAN
    - To be investigated further
  - **GP-080904** Analysis on Latency of CS Call Setup during CS Fallback to GERAN
    - Assumptions to be clarified. To be investigated further
- **White list, Black list**
  - Some further comparisons of the impact of both approaches provided in **GP-080521, GP-080639, GP-080718**
  - GERAN2 Conclusions from GERAN2#37bis reported in **GP-080447** (**G2-080231**) (LS to GERAN, GERAN1, RAN2 cc RAN1, RAN4), in particular:
    […] No GERAN2 related specific reason has been seen so far whereby the black list approach cannot be adopted in GERAN as well. Most of the operators in GERAN2 have stated their position in favour of the black list approach. Many manufacturers in GERAN2 have expressed their position in favour of the black list approach. […]
- **GP-080667** Proposal to allow minimising sys info acquisition time by a dual mode GSM/E-UTRAN terminal in a GSM cell broadcasting GSM/UTRA/EUTRA NCell Information
  - More investigation needed
- **Border Areas**
  - Comparable proposals in **GP-080542, GP-080701** to allow *grouping of PLCIDs* on an operator basis for cells of different operators sharing the same carrier frequency: to minimise planning effort to prevent PLCID collisions and subsequent problems (e.g. reselection to forbidden TA which would prevent reselection to a cell on that frequency and could force the MS to camp on GERAN for several minutes). Could also be used for CSG cells.
  - Proposals will be investigated further

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Rel-8 – GERAN/E-UTRAN Interworking (2/3)

- **Measurement Reporting**
  - Considerations on reporting of CSG cells – **GP-080520**
    - CSG requirements are missing in GERAN and will have to be communicated once settled. E.g. need for measurement reporting of CSG cells
    - Provision of CSG list is unknown: (N)AS?
  - **GP-080668, GP-080673** addressing the impact of EUTRAN NCell Reporting on GERAN signalling: further investigations needed
    - Reporting quantity open
    - Further discussions needed on messages to use, potential tradeoffs…
- **GP-080746** CR 44.060 postponed
  - Defines the impact of EUTRAN Neighbouring Cell Information and measurement information on signalling
  - No presentation – work in progress
  - Companies invited to check the paper offline.
- **GP-080695** Proposal to allow (de)activating EUTRA measurement/measurement reporting (possibly on freq. basis)
  - Will be investigated further

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

- **Inter-RAT PS Handover**
  - GERAN2#37bis:
    - Communication expected with SA2 to reach a common agreement on stage 2 for PS Handover (i.e. content of GERAN(1) TS 43.129 and SA2 TS 23.401) in GERAN#38
    - At minimum in 43.129:
      - References pointing to 23.401
      - GERAN-specific aspects
    - At minimum in 23.401:
      - References pointing to 43.129
      - SA2-specific aspects
  - GERAN#38: LS to SA2 cc RAN3 in **GP-080910** to inform about the above
  - GERAN#38: **GP-080720** CR 43.129 noted (postponed): proposed placeholders for GERAN/E-UTRAN PS Handover: living Stage 2 CR to be further updated
  - **Container handling:**
    - GERAN2#37bis: Proposal to follow the principle “source adapts to target”
    - This principle seems to be already reflected in the TS 36.300 and TS 23.401. In addition GERAN has endorsed already the inter RAT principles included in TS 36.300, section 10.2.2.
      - To be reflected in TS 43.129
    - **GP-080722** noted (will be merged with **GP-080720**)

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Rel-8 – VGCS Enhancements for VGCS Apps

- **GP-080712** CR 48.008 approved: defines that the UPLINK APPLICATION DATA is sent on the call-controlling SCCP connection
- **GP-080713** CR 48.008 approved: Corrections to the Message Type for Notify Application Data

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U-TDOA Enhancement – Rel-8

- **None**

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Rel-8 – TEI-8

- **GAN**
  - **GP-080889** CR 44.318 approved: Clarification of MS behaviour upon reception of a downlink message (GA-PSR UNIT DATA) while a Transport Channel activation is in progress
  - **GP-080802** CR 44.318 Triggering GAN Registration Update by Changing UARFCN
    - GERAN#37: agreement to modify the Registration Update procedure in 43.318 to allow changes in UARFCN within the current serving cell to trigger MS transmission of a GA-RC REGISTER UPDATE UPLINK message.
    - Alignment in 44.318
- **VGCS**
  - **GP-080711** CR 44.018 approved: corrections to VGCS enhanced cell reselection
- **Misc.**
  - **GP-080918** CR 44.018: Network to send the Multirate Configuration IE in case of a change of Multirate Speech Version in order to avoid mismatch of channel mode
- **GP-080734:** Multiplexing enhancements for single TBF operation
  - Updated paper vs. proposal seen in GERAN2#37bis
  - Work in progress

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Rel-8 –A interface over IP (1/2)

- **Work Item**
  - Feature: GERAN
  - Building blocks:
    - Approved: CT4
  - Feature: SA4 (linked to GERAN WID)
  - **GP-080901** Updated WID Endorsed
    - Reflects SA4 WID and CT4 BB
- LSs in **GP-080899, GP-080900**: Plenary
- **GP-080850:** Proceedings on AoIP
  - Living document to monitor the overall progress on AoIP
- **TR 43.903**
  - **GP-080902** CR 43.903 noted: Corrections to MSS – MGW signalling
    - Aims at reflecting the status of discussions in CT4
    - No agreement > Plenary
  - **GP-080897** CR 43.903 endorsed: handling of fax and data calls
- **48.nnn series**
  - **GP-080563** CR 48.001 postponed: Introduction of A interface over IP transport. **Content endorsed**
  - **GP-080898** CR 48.008 postponed: BSSMAP Procedures. **Content endorsed**
  - **GP-080745, GP-080896** CRs 48.008 postponed: Internal handover procedures
  - **GP-080893** CR 48.008 postponed: BSSMAP Signalling
- **Proposal for a new TS to address RTP/RTCP aspects of BSS/MGW interface in GERAN: no agreement**
  - Attempt at aligning as much as possible with 29.414
  - Concerns raised that existing specifications would allow to cover these aspects
  - Concerns raised that this may introduce delays in AoIP completion

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Rel-8 –A interface over IP (2/2)

- **GP-080586:** Proposal to use BSSMAP instead of RTCP between BSS and MGW to negotiate RTP multiplexing and RTP header compression prior to RTP session establishment through BSSMAP (by extending the AoIP container)
  - ➲ Will be submitted directly to CT4/CT3
- **Data and Fax**
  - **GP-080528** proposed solution for data redundancy for CSD
    - Redundancy would yield benefits if needed, however the need for specifying such mechanism is not clear for there could exist other means to increase the reliability of the link
- **Use of Bad Frame Indication**
  - **GERAN2#37bis**
    - Preliminary evaluations showing the BFI flag might no longer be needed and existing RFC 3551 for GSM HR, FR, EFR would be sufficient. Refinement of evaluations needed to confirm this
    - SA4 need to be involved: recommendation to bring this discussion to SA4 directly
  - **GP-080529:** additional evaluations concurring with the results shown in GERAN2#37bis. Proposal to no longer use BFI for GSM FR, HR and EFR
    - Simulation assumptions have however been questioned: SA4, GERAN1 involvement needed
  - ➲ Discussion to take place in SA4, according to the previous recommendations
  - ➲ Document to be seen in GERAN1

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Rel-8 – Other (1/2)

- **ETWS**
  - **GERAN#37**
    - Exhaustive requirements needed so proper evaluation of solutions, limitations can be done
      - Some limitations have been identified with GP-080142 (e.g. Paging capacity, NMO, MS Class…)
    - In particular:
      - Legacy MS:
        Support for legacy MS is not excluded as per regulatory requirements:
        Definition of "legacy MS" is needed: what are the minimum required capabilities to be supported for delivery of ETW information
  - **GERAN#38:** LS from SA2 in GP-080453 indicates a CBS-based solution would be used for ETWS. However this may not necessarily imply that CBS would be used for primary notification
  - **GP-080674** proposed alternatives for ETWS primary notifications
    - Evaluation of the alternatives is cumbersome while detailed requirements are still missing in GERAN (see e.g. above)
  - **GP-080543** ETWS Primary Notification
    - Update of **G2-080142** seen in GERAN2#37bis
    - Provides the rationale for the ETWS requirement for primary notification (4s) and additional justifications for using CBS for the primary notification
    - Concerns raised on feasibility of using CBS for primary notification

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Rel-8 – Other (2/2)

- **Interdomain Handover (GERAN>GERAN)**
  - LS from SA2 in **GP-080452** requires further clarification in GERAN: Discussion paper in GERAN is needed to clarify a working mechanisms to get the reliable anchoring information so that domain transfer procedure can be invoked
    - Note that a requirement exists that if the MS is VCC capable, the call shall be anchored to VCC AS
    - If there is any open issue, within SA2 remit, then communication to SA2 will be made
  - Proposal **is independent from SR VCC discussion in SA2** and is to realise in GERAN the domain transfer procedure
  - All CRs have been seen before and are *technically correct*, however pending the above discussion paper before considering approval
    - **GP-080676** CR 43.129 noted
    - **GP-080675** Draft CR 24.008 noted
    - **GP-080677** CR 44.018 postponed
    - **GP-080680** CR 44.060 postponed
    - **GP-080693** CR 48.018 postponed

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AOB

- None

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Outgoing LSs

- **GP-080881** LS to CT1 on Latency Reduction support for non RTTI capable MSs
- **GP-080883** LS to RAN2, RAN3, SA3, CT1 on GAN Iu security considerations
- **GP-080910** LS to SA2 cc RAN3 on specifying Inter-RAT PS Handover between GERAN and E-UTRAN

- **GP-080899** LS to CT4, SA4 on A-interface User Plane over IP: plenary
- **GP-080900** LS to CT3 cc CT4 on on A-interface User Plane over IP: plenary

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Future meetings

• **GERAN2#38bis**	**24 – 27 June 2008**	**Xi'an, China**
• GERAN2#39	26 – 28 August 2008	Florence, Italy
• GERAN2#39bis	30 September – 3 October 2008	Sophia Antipolis, France
• GERAN2#40	17 – 21 November 2008	TBD

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