3GPP TSG GERAN2#34bis

Póvoa de Varzim, 25 – ~~29~~ 27 June, 2007

Chairman's summary

Guillaume SÉBIRE (Nokia-TP/Helsinki)

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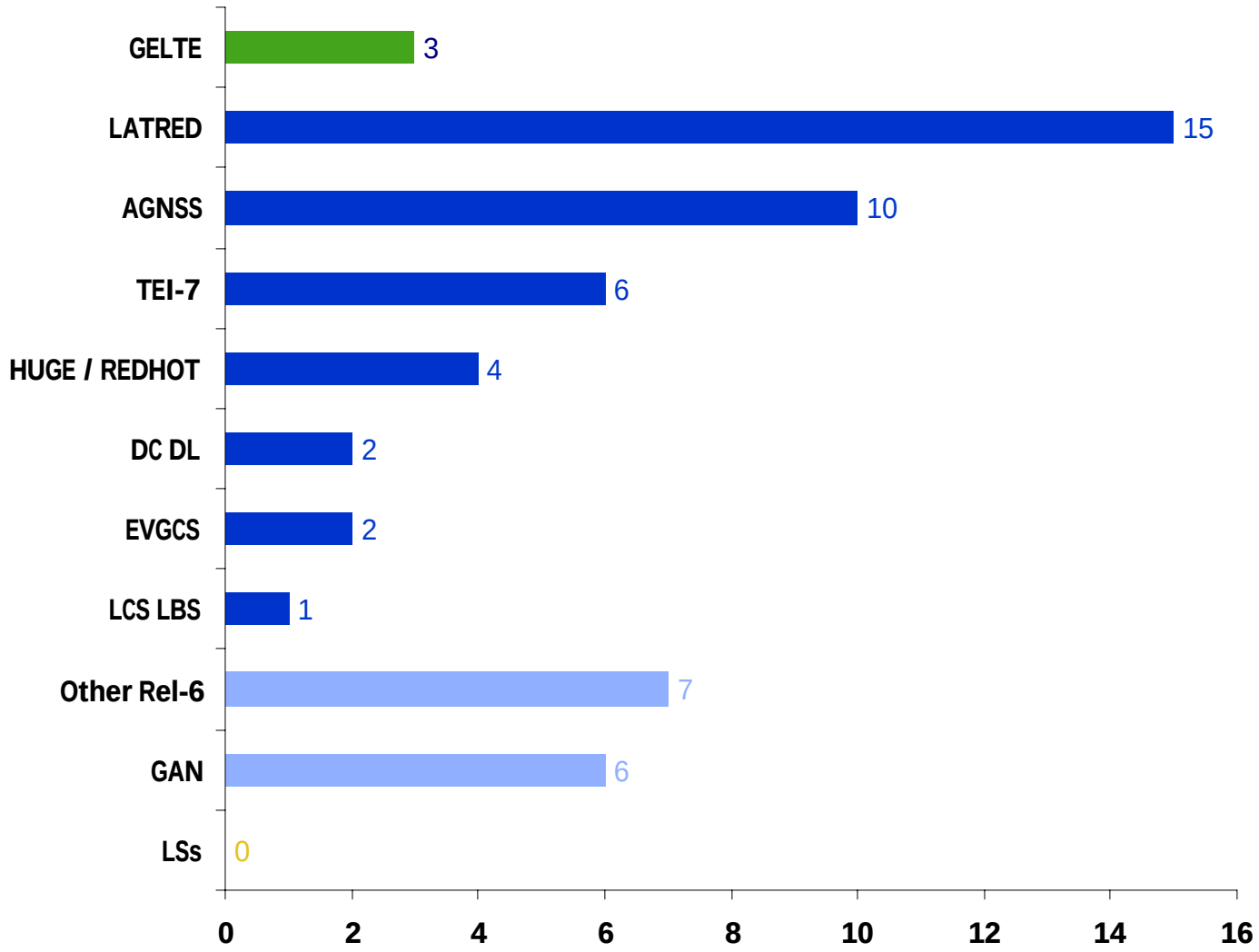
Incoming Contributions per Agenda Item



Total: 56

Total (end): 100

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	Monday	Tuesday	Wednesday	Thursday	Friday
8am					
9am	GAN / Other Rel-6	LATRED	AGNSS		
10am	Coffee	Coffee	Coffee		
11am	DCLD HUGE / REDHOT	TEI-7	AGNSS LCS LBS		
12pm	Lunch	Lunch	Lunch		
1pm					
2pm	LATRED	EVA	Revisions		
3pm		GELTE			
4pm	Coffee	Coffee	Coffee		
5pm	LATRED	GELTE	Revisions		
6pm					
7pm					
8pm					

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SA3 issue on Algorithm Change [G#31]

- **Pending:** Review if any changes are needed to our specifications due to the introduction of UEA2/UIA2 and the inferred algorithm change at inter RAT Handover (see GP-061526)

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Pre Release 6 Corrections

- **None**

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Completed Rel-6 Work Items (2/2)

- **GAN**
  - **G2-070225, G2-070226** CRs 44.318 approved: Correction of IE coding
    - The length of some IEs may overcome the limit indicated by the length field of that IE, hence extension is needed for these IEs. Also IEIs have been corrected
- **Other Rel-6**
  - **G2-070195, G2-070194** CR 48.018 approved: Correction to GPRS Timer IEI Type
    - Wrong IEI name ”Packet Flow Timer” used instead of ”GPRS Timer”
  - **G2-070227, G2-070228** CR 48.018 approved: Service UTRAN CCO Clarifications
    - Defines the BSS behaviour with Service UTRAN CCO while several may be received from the SGSN for a given MS, but the most recent shall be used
  - **G2-070208** CR 48.008 RNC Identifier coding alignment for PS Handover
    - Coding of RNC ID aligned with that use in R99 (CS handover) and Rel-5 (RIM)
  - **G2-070241, G2-070242** CR 44.018 approved: Clarification of talker behaviour for VGCS Reconfigure procedure
    - Mobiles in group transmit mode to act on the reception of a VGCS/VBS RECONFIGURE / RECONFIGURE2 message in an I frame and to re-establish the main signalling link on the new channel

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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

- **G2-070197** CR 44.060 approved: PFI inclusion in Packet CS Release
  - As per GERAN#34 agreement, PFI optional – not used in single TBF case
- **G2-070230** CR 44.060 postponed: Transmission order of blocks in DCDL RLC Unack mode
  - In-order delivery of RLC data blocks to be preserved for Dual Carrier Downlink. Clarification of the MS behaviour *may be* needed to ensure *all* RLC data blocks received within a radio block period are taken into account prior to detecting missing RLC data blocks

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Rel-7 – RED HOT / HUGE

- **Naming of the feature in the specification**
  - GERAN2 endorsed
    - The introduction of one name to refer to both uplink and downlink enhancements, no use of “RED HOT” and “HUGE”.
      - G2-070222 proposes the use of “EGPRS-2” (to be compared with R99 EGPRS while 8-PSK is optional in uplink”) itself containing “[downlink/uplink] EGPRS-2A” and “ [downlink/uplink] EGPRS-2B” (specifically to refer to the A and B levels of REDHOT and HUGE) – These names have not been endorsed by GERAN2
      - Reluctance to use some 3GPP2-like abbreviations
    - No coupling of the support of uplink and downlink enhancements
    - Reduced Latency support: generic indicator i.e. not coupled with uplink/downlink enhancements
    - Short conclusive discussion paper needed for GERAN#35 plenary
- **Stage 2**
  - G2-070223 CR 43.064 noted
    - USF decoding by an “EGPRS-2” MS for different modulations to be discussed – GERAN1
- **Stage 3**
  - G2-070232 CR 44.060 postponed

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Rel-7 – Latency Enhancements (1/4)

- **RTTI**
  - Removal of PDCH Split over two carriers: open
  - Channel coding for RTTI RLC/MAC Control Blocks – no progress!
    - Multiplexing case: new "MCS-1" like coding needed
    - No multiplexing case (RTTI only): same new "MCS-1" coding or 10ms CS1 could be used: open
      - One company willing to use 10ms CS1
    - Definition of the new "MCS-1" open and subject to discussion in GERAN1
      - See proposals in G2-070173 (G2-070174), G2-070210
      - Performance impact of using a new stealing flag codepoint on detecting stealing flags to be evaluated (reduced Hamming distrance)
      - Late proposed "compromise" in G2-070233
  - **G2-070234** CR 44.060 postponed: RTTI TBF Assignments
    - Provides assignment details (PDCHs, corresponding PDCH pairs, USF mode, etc) for RTTI TBFs
    - Does not cover PDCH split over two carriers: is this split needed? (see above)
    - Coding to be further optimized
  - **G2-070179, G2-070180** CRs 44.060 postponed: USF granularity = 1 with RTTI in dynamic and extended dynamic allocation
    - Concerns raised as to allocating every 2nd reduced block period i.e. leave 10ms gap between two RTTI blocks

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Rel-7 – Latency Enhancements (2/4)

- **FANR (cont'd)**
  - MS shall monitor a PAN only on the PDCHs on which the USF is monitored
    - Whether the MS shall also monitor a PAN on other PDCHs when downlink TBFs are assigned to this MS open
  - GERAN2 agreement to use implicit TFI indication for PAN
    - In uplink, implicit TFI is optional (not needed for single TBF)
    - In downlink, implicit TFI is mandatory
    - Agreement to define the TFI, CRC operation in 45.003 and provide appropriate link between 45.003 and 44.060
    - **G2-070258** CR 44.060 approved: introduction of implicit TFI for PAN
    - **G2-070254** Draft CR 45.003 noted: introduction of implicit TFI for PAN. Text will be revised offline. CR to be submitted to GERAN1
  - **G2-070260** CR 44.060 approved: PAN transmission when no PUAN nor data is available for transmission: network allowed to use a LLC UI Dummy Command
    - Corresponding CR 44.064 in G2-070238 endorsed and sent to CT1 in G2-070256

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Rel-7 – Latency Enhancements (3/4)

- **FANR**
  - Time-based approach revived
    - GERAN#32 concluded the need for SSN-based FANR in both uplink and downlink. Time-based FANR for uplink ack/nacks (sent by the BSS) left open
    - Simulation results provided in G2-070211 show in the simulated conditions an increased coverage for VoIP (so that recommendations/requirements are met: max mouth-to-ear delay=300ms, max FER=1%) when Time-based FANR is used
    - More simulation results needed, e.g. with multiple users (channel utilization rate ≤0.5), HUGE A/B (4bits/entry in the bitmap), …
    - **G2-070221** CR 44.060 postponed

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Rel-7 – Latency Enhancements (4/4)

- **General**
  - **Faster Resumption of Uplink Transmissions – G2-070178**
    - Proposed concept discussed for a few meetings
    - **G2-070178** CR 44.060 rejected while most companies do not see a need for the proposal
  - **G2-070240** CR 44.018 postponed: Introduction of latency reduction features in assignment messages. Linked to G2-070234

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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 (1/2)

- **Bit-efficient extended orbit information**
  - **Background:** Galileo and in general GNSS to include the option to extend the satellite orbits beyond that provided by the native format
  - **Observation:** extended orbits require a large amount of signalling (RRLP) in order to convey the necessary information to the MS i.e size of the ephemeris and clock correction for each satellite (and for each constellation supported)

  - Prior agreement to conduct a comparison in terms of performance and complexity between two proposals (G2-070009) and G2-070169 (revised vs. previous proposal)
    - Detailed comparison initiated in GP-070778
    - Additional comparisons provided in G2-070213 (not taking into account the latest updates provided in G2-070169) and G2-070193
  - No agreement on a solution despite expectations at GERAN#34 – summary of discussions in G2-070251
    - Two methods "A" and "B" with method "B" gathering a wide support while method "A" has isolated support
    - Integrity check within ephemeris extension feature needed: MS to check with the SMLC whether the "slice" of the ephemeris is still valid or not. SMLC to know whether long term orbit is valid or not
  - **G2-070190** CR 44.031 postponed

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Rel-7 – A-GNSS (2/2)

- **Misc CRs**
  - **G2-070186, G2-070189** CRs 44.031 postponed: proposed modifications to the GANSS Orbit Model to fit to the current Galileo ICD Ephemeris description wrt. eccentricity. Disagreement on which of the proposed approach or the current 3GPP TS 44.031 is futureproof enough
  - **G2-070248** CR 44.031 approved: Correction to Bad Signal Identifier to allow the indication of bad (L1) GANSS satellite signal
  - **G2-070190** CR 49.031 postponed: correction of alignment between 44.031 and 49.031 for GANSS Time of Ephemeris description
    - Either 49.031 or 44.031 could be updated

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Rel-7 – LCS Enhancements for LBS

- None

- **Bit-efficient extended orbit information**
  - No contribution – likely to adopt the method for AGNSS (TBC)

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Rel-7 – A-GPS Minimum Performance Requirements

- None

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Rel-7 – TEI-7

- G2-070181 CR 44.318 approved: UTF-8 encoding for the AP Service Name IE and GAN Service ZOne IE increases the maximum length of these IEs: this needs to be reflected in the messages making use of these IEs
- G2-070182 CR 44.018 approved: MS support for Ciphering Mode Setting IE is indicated in CM3
- G2-070243, G2-070244 CRs 48.008, 48.018 approved: introduction of extended RNC ID: compatible with existing RNC ID coding in GERAN specifications
- G2-070262 CR 44.060 approved: Construction of bitmap in EGPRS PDAN in response to poll
  - Aim at clarifying for RL-EGPRS, NP-mode, and DCDL configurations, what RLC data blocks to take into account for constructing the FRB.
- G2-070252 CR 44.031 approved: Removes an ambiguity with GPS Reference Time Uncertainty and GPS TOW Accuracy so that, GPS Reference Time Uncertainty when available refers to the GPS TOW Accuracy
- G2-070220 CR 44.018 postponed: Sending of DTM request clarifications
  - Allows the MS to stop sending DTM Requests in a given cell after 5 consecutive DTM Rejects in that cell
  - However concerns raised with the CR that it prevents the MS to ever perform further DTM Requests in this cell should the condition above have been met
  - Reasons for the CR to be clarified while the CR proposes an option for the MS to behave as suggested

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Rel-8 – FS on GAN Enhancements

- None

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Rel-8 – GERAN/E-UTRAN Interworking (1/2)

- **General**
  - [GERAN#34] A TSG GERAN **Working Document** (maintained by the rapporteur) should be established to capture agreements and open issues in TSG GERAN as to GERAN/LTE interworking in order to monitor the work and guarantee all elements will be in place in the standard
  - **Joint RAN/GERAN meeting** (proposed at GERAN#34) is scheduled on 27-28 September 2007 in Sophia Antipolis. Aim at laying out respective requirements/limitations from both groups from Layer 1/2 perspective (e.g. Ncell list, NCell monitoring, corresponding parameters, measurements and applicable scenarios e.g. cell re-selection, PS Handover)
- **Fallback to CS Domain** (cont'd)
  - Proposal in G2-070183 to allow inter-domain Handover while in GERAN (GERAN PS>GERAN CS) through allocation of PS and CS radio resources via a new Inter-domain Handover Command message, re-using some of DTM Handover Command components. This proposal may also be used at PS Handover between E-UTRAN and GERAN
    - Draft CR to SA2's 3GPP TS 23.401 in G2-070184 describing PS Handover from E-UTRAN to GERAN with or without fallback to CS domain (fallback would occur once in GERAN)
  - Updated proposal in G2-070224 making use of DTM while in GERAN to perform domain transfer following a pure PS Handover between E-UTRAN and GERAN Handover
  - See next slide
  - "Conflict" to be sorted out between [GERAN] 3GPP TS 43.129 and [SA2] 3GPP TS 23.401. Way forward would be to first agree in GERAN the impact on 43.129 of GERAN/E-UTRAN interworking and next liaise to SA2

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

Fallback to CS Domain Assumptions
Fallback to CS decision lies in GERAN (/UTRAN): endorsed by TSG GERAN Fallback to CS to occur when the MS is in GERAN (/UTRAN): i.e. solutions not relying on scenario 1 Seamless PS > CS domain change needed and achieved through parallel PS and CS resources until CS call established Seamless mobility E-UTRAN > GERAN needed; Compatibility with SR VCC required

Fallback to CS Domain Solutions		
	Nortel (G2-070224)	**Ericsson (G2-070184)**
E-UTRAN > GERAN mobility	PS Handover	PS Handover
GERAN CS Resource Reservation while in E-UTRAN	Not necessary (not prevented)	Required, in the PS Handover preparation phase *Guarantees CS resource availability*
Provision of GERAN CS Resources to the MS while in E-UTRAN	No	Required, in the PS Handover execution phase
"PS Handover message" content	PS Resources	PS Resources and CS Resources
GERAN CS Resource Establishment when in GERAN	Required	No. CS Resources already established
Provision of GERAN CS Resources to the MS when in GERAN	DTM Enhancements: PACKET CS COMMAND [DTM ASSIGNMENT COMMAND] *Avoids dropping the PS Resources and allows to reconfigure all resources*	No. CS Resources already provided
CS Call Control Establishment in GERAN	In Parallel with PS Voice	In Parallel with PS Voice
DTM Support	Yes	"Yes": DTM radio resource handling required DTM air interface signaling not required
DTM Enhancements Support	Partly Required – Enhanced CS Establishment while in packet transfer mode	No

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Rel-8 – VGCS Enhancements for VGCS Apps

- **Transmission of short application-specific data to/from group members of an ongoing group call**
  - **G2-070249, G2-070250** CRs 48.008, 44.018 approved

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Rel-8 – Other

- None

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AOB

- None

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Outgoing LSs

- **G2-070256** LS to CT1 on usage of UI Dummy Command

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Future meetings

• **GERAN2 #35**	**27 – 31 August 2007**	**Dublin, Ireland**
• GERAN2#35bis	08 – 12 Oct 2007	Sophia Antipolis, France
• GERAN2 #36	12 – 16 November 2007	Vancouver, Canada

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