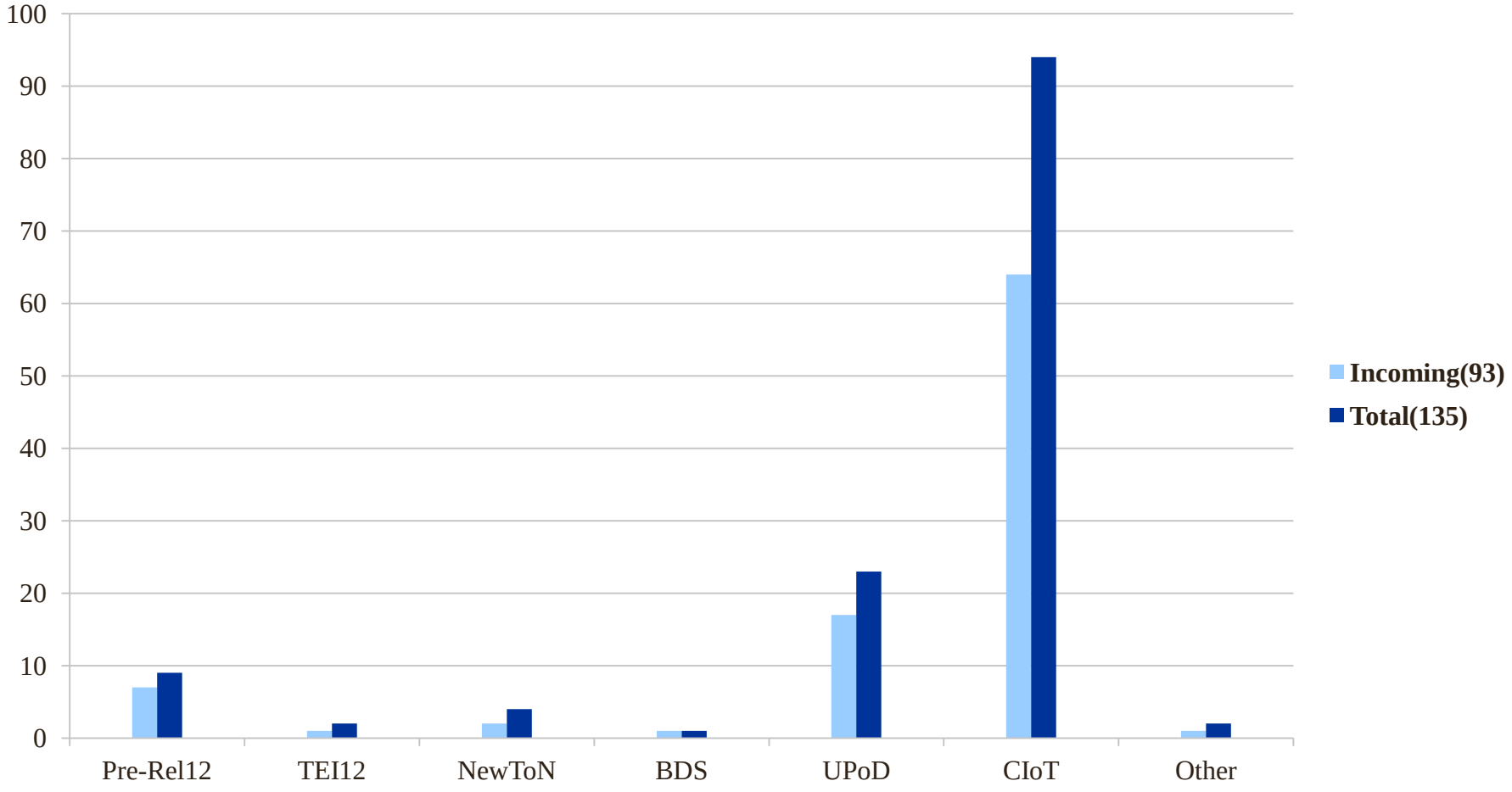
3GPP TSG GERAN WG2#65

Chairman's Summary (GP-150315)

Chairman: Yang ZHAO (Huawei Technologies)

Secretary: Gert THOMASEN (MCC report in GP-150314)

Incoming Contributions



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Schedule

	Monday	Tuesday	Wednesday	Thursday
9:00-10:30		UPoD	CIoT-Ericsson	Paging
Coffee Break				
11:30-12:30		CIoT-Rapportuer Semtech/SIGFOX	CIoT-Ericsson	Revision
Lunch				
14:00-15:30	LS/Pre-R12	CIoT-HW	CIoT-Ericsson	Revision
Coffee Break				
16:00-18:00	NewTon/BDS /TEI12/Other	CIoT-QC	SA Joint Session	Revision
18:00-20:00	UPoD	CIoT-Ericsson	CIoT-NN Architecture	

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1 Pre-Rel12 Corrections

2 Rel-12 Work

3 Rel-13 Work

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7.2.5.1 Pre-Rel12 corrections

- **LS on Unnecessary IRAT Handover Detection in 0064**
  - RAN3 has agreed to enhance the encoding of the HO Report IE described in TS36.413 by including a list of detected PCIs and corresponding EARFCNs.
  - G2 see no impact on GERAN specifications
- **EARFCN Extension**
  - **GERAN#64**
    - G2 agreement: only UEs supporting network sharing read SI23 to get extended EAFCNs, and UEs not supporting network sharing or UEs supporting network sharing without SI23 broadcast from the network read SI2quater to get extended EARFCNs.
  - **GERAN#65**
    - CRs 0119, 0120 on **44.018** since **Rel-11** agreed
    - CRs 0181, 0180 on **44.060** since **Rel-11** agreed
    - 0182 Draft CR on **24.008** Endorsed: Capability indicator for supporting extended EARFCN, corresponding LS in 0277 sent to CT1, LS in 0234 sent to RAN4 to inform GERAN progress

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7.2.5.1 Pre-Rel12 corrections

- **Correction of the dual priority feature**
  - CRs 0235, 0236 on **44.018** since **Rel-11** postponed: to avoid ambiguity of "upper layer"; the MS is allowed to start another access attempt even if T3234 or T3236 is running, if the new access is not for the purpose of NAS signalling low priority.

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7.2.5.2.3 New Training Sequence

- **Introduction of extended TSC sets**
  - **GERAN#63**
    - 0619 CR on **44.018**, 0658 CR on **44.060** Conditionally agreed: to introduce extended TSC sets in signaling
    - 0595 Draft CR on **24.008** Endorsed: to introduce capability indication of NewToN for mobiles
  - **GERAN#64**
    - 0955 CR on **44.018**, 0956 CR on **44.060** Conditionally agreed: to introduce extended TSC sets in signaling
    - 0957 LS to CT1 to introduce capability indication of NewToN: sent to plenary, pending on G1 status
  - **GERAN#65**
    - 0237 CR on **44.018**, 0238 CR on **44.060** agreed: clarification on “Extended TSC sets”.

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7.2.5.2.4 BDS

- **Corrections to BDS information**
  - 0202 CR on **44.031** agreed: The reference [18] is changed to point to the BDS ICD 2.0.

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7.2.5.2.5 TEI12

- **Corrections to Galileo System Time Origin issue**
  - 0240 CR on **44.031** agreed: Galileo system time origin is corrected according to Galileo OS SIS ICD.

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7.2.5.3.3 Power Saving for MTC Devices(1/3)

- **Work Plan in 0056 noted**
- **Discussion**
  - **Use case and Traffic model**
    - GERAN#63
      - Traffic models agreed in 0659 for network-triggered and mobile-originated reporting
      - PCR of clarification for Use cases and traffic models agreed in 0708
      - High/Medium Mobility, Active timer usage and requirements for Software upgrades remain FFS
    - GERAN#64
      - No input on OPEN issues
    - GERAN#65
      - No input on OPEN issues

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7.2.5.3.3 Power Saving for MTC Devices(2/3)

- **Discussion (Cont')**
  - **Solution**
    - ALT1: event-triggered measurements in 0103, PCR in 0241 agreed
    - ALT2: eDRX
      - 0127 Paging Group Determination, PCR in 0130 agreed
      - 0159 Identifying uPoD Devices, PCR in 0245 agreed
      - 0161 Energy Consumption Evaluation for RAU procedure, PCR in 0242 agreed
      - 0163 MS Energy Consumption Evaluation for data transfer, PCR in 0243 agreed
      - 0205 MS Energy Consumption Evaluation, PSM vs. eDRX, PCR in 0206 agreed
      - 0126 Realizing eDRX using TDMA FN information noted, corresponding LS sent to SA2 in 0311
      - 0204 Accelerated System Access Procedure noted: the legacy case should not only consider the worst case
      - 0129 Introduction of short and long sync up procedures postponed
      - 0273 full set of CRs agreed

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7.2.5.3.3 Power Saving for MTC Devices(3/3)

- **Discussion (Cont')**
  - **TR update in 0316 (sent to GERAN plenary)**
    - G2 agree to send UPoD TR to GERAN plenary for information

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7.2.5.3.4 Cellular IoT (1/7)

- **TR Update in 0189**
- **G2 agree to send the TR to GERAN plenary for information in 0192**
- **Work plan updated in 0274 -> sent to GERAN plenary**
  - G2 agree to have an additional meeting during 9:00 June 29th – 15:00 July 2nd
  - G2 agree to start on Monday afternoon of the GERAN plenary meeting week
- **Discussion**
  - **Architecture**
    - 0053 noted: Optimisations for S1-based architecture
    - 0108 noted: NB M2M - Evaluation of Transmission Efficiency
    - Way forward:
      - Evaluations on legacy Gb, legacy S1 is necessary
      - Evaluations on optimised Gb/S1 is optional
      - Asking SA2's view on optimised Gb/S1 to help GERAN conclude the architecture selection before SI completion in August (LS is expected to be sent in April adhoc meeting)

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7.2.5.3.4 Cellular IoT (2/7)

- **Discussion (Cont')**
  - **CN impact for paging**
    - 0126, 0107, 0193, 0179 noted: couples of proposals addressing paging for devices in different coverage conditions
    - Reply LS in 0312 to SA2 and companies are encouraged to bring contributions directly to SA2
  - **Agreed Drafting rule:**
    - PCR should only refer to specifications
    - Stage 3 type details like detailed description of message content, information elements and header fields should be seen as examples and are subject to change during a potential work item phase

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7.2.5.3.4 Cellular IoT (3/7)

- **Discussion (Cont')**
  - **SIGFOX solution**
    - C-UNB technology for Cellular IoT - MAC Layer description in 0058
      - Various concerns raised on support of DL Command and Software update traffic model, support of existing security model and SMS/network sharing/PLMN selection features etc.
    - C-UNB technology for Cellular IoT - Performance evaluation in 0059
      - More precise analysis needed
    - PCR in 0281, 0283 postponed
  - **Huawei solution**
    - PCR in 0078 agreed: clarification on NB M2M Scheduling a UE after Random Access with Random Number procedure
    - Overview of Coverage Class in 0095, PCR in 0099 agreed
    - PCR in 0105 on NB M2M Cell Selection and Reselection agreed
    - PCR in 0276 on NB M2M Paging Concept agreed
    - NB M2M Gb/S1 UE Operating Modes in 0051, PCR in 0250 agreed
    - 0258 full set of the PCRs agreed

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7.2.5.3.4 Cellular IoT (4/7)

- **Discussion (Cont')**
  - **Huawei solution**
    - PCR in 0079 of overall introduction for Narrow band solution postponed
    - 0073 battery life analysis, 0109 latency analysis noted: more work needed
  - **Qualcomm solution**
    - Narrow Band OFDMA - Revised frame structure in 0112 noted, mainly G1 scope
    - Narrow Band OFDMA – Physical resource block design in 0187 noted, mainly G1 scope
    - Narrow band OFDMA- System information design in 0047, PCR in 0252 agreed
      - More work needed on system information acquisition time analysis
    - Narrow Band OFDMA – Paging mechanism design in 0114, PCR in 0255 agreed
    - Narrow Band OFDMA – General MAC layer description in 0186, PCR in 0254 agreed
      - More details needed on ACK and non-ACK mode
    - PCR in 0256 Narrow band OFDMA- Access procedure agreed
      - More details needed on scheduling, retransmission etc.
    - PCR in 0253 Narrow band OFDMA- Downlink packet transfer initiation procedure agreed
    - 0257 full set of the PCRs agreed

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7.2.5.3.4 Cellular IoT (5/7)

- **Discussion (Cont')**
  - **Ericsson solution**
    - EC-GSM, Concept description in 0230 noted
    - EC-GSM, Paging Group Determination in 0133, PCR in 0259 agreed
    - EC-GSM, BCCH Overview in 0135, PCR in 0260 agreed
    - EC-GSM, Random Access Procedure in 0136, PCR in 0289 agreed
    - EC-GSM, CCCH Mapping on TS0 and TS1 in 0137, PCR in 0290 agreed
    - EC-GSM, AGCH assignment messages in 0167, PCR in 0261 agreed
    - EC-GSM, EC-PCH Paging Request message in 0169, PCR in 0262 agreed
    - EC-GSM, RLC support of open ended fixed uplink allocation in 0171, PCR in 0263 agreed
    - EC-GSM, Support of Normal bursts in large cells in 0173, PCR in 0264 agreed
      - Clarification on relationship between coverage class and AB/NB bursts usage is FFS
    - EC-GSM, PACCH Header Optimization in 0175, PCR in 0265 agreed
      - Analysis on how to multiplex legacy UE and EC-GSM UE by using different headers is FFS

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7.2.5.3.4 Cellular IoT (6/7)

- **Discussion (Cont')**
  - **Ericsson solution**
    - EC-GSM, Overload Control in 0177, PCR in 0266 agreed
    - EC-GSM, EC-SCH design performance and mapping in 0208 noted -> mainly G1 scope
    - EC-GSM, Battery lifetime performance evaluation in 0134 noted, PCR in 0275 Conditionally agreed
    - EC-GSM – Incremental redundancy and chase combining in 0139 noted, PCR in 0268 Conditionally agreed
    - EC-GSM, Exception Report Latency performance evaluation in 0269
      - sent to G1
      - Related PCR in 0270 Conditionally agreed
    - EC-GSM, Device Aspects in 0060 noted: more precise complexity analysis expected
    - 0271 full set of the PCRs agreed

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7.2.5.3.4 Cellular IoT (7/7)

- **Discussion (Cont')**
  - **Nokia Networks solution**
    - 0195 Narrowband Hybrid Modulation - Coexistence with legacy GPRS users noted -> mainly G1 scope
    - 0198 Narrowband Hybrid Modulation - Link layer design aspects noted
      - More details needed on resource allocation, scheduling and retransmission etc.

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7.2.5.3.6 Other

- **New WID on RAN aspects for improvements to CS/PS coordination in GERAN Shared Networks in 0225**
  - Approved in GERAN opening plenary
  - Related LS in 0278 sent to SA2

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Outgoing LSs

Source GERAN2

- **GP-150313** LS to SA2 on MBMS for Message delivery to Group of devices
- **GP-150277** LS to CT1 on Introduction of extended EARFCN value range in GERAN
- **GP-150234** LS to RAN4 on Introduction of extended EARFCN value range in GERAN
- **GP-150311** LS on extended DRX in idle mode to SA2

Source GERAN

- **GP-150312** Reply LS to SA2 on paging for MTC
- **GP-150278** LS to SA2 on New WID on RAN aspects for improvements to CS/PS coordination in GERAN Shared Networks

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Next Meetings

- WG1&2 adhoc 20 - 23 April 2015, EU
- GERAN2#66 25 - 29 May 2015, EU
- GERAN WG2#67 11 – 13 August, 2015 Yin Chuan, China

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Thank You