3GPP TSG-RAN, Meeting #12
Stockholm, Sweden, 12-21 June 2001

Tdoc RP-010452

MCC Review of the Work Plan at Plenaries #12

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General Plan

- **Remaining open points from Plenaries #11 on Release 4 Features**
- **Status of Release 5 Features**
- **Proposed new Features**
- **Conclusion**

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Resolution of open points on Release 4 Features from Plenaries #11

Rel 4 Open Features

- QoS (restructured)
- Network Domain Security (restructured)
- Multimedia Codec (clarified)
- LCS (clarified)
- UE Testing activities (clarified)
- OSA Rel4 enhancements (clarified)
- OAM issues (clarified)

QoS

As proposed in TSG #11, QoS has been split in two:

- **UMTS QoS for PS Domain for Rel4**
- **End to End QoS for PS Domain (including IMS) for Rel5**

Corresponding WIDs submitted to SA#12. See Work Plan for more details

Network Domain Security

- **NDS has been split into NDS-MAP (TS 33.200) and NDS-IP (TS 33.210):**
  - **NDS MAP presented for approval as Rel4 in June 2001**
  - **NDS-IP is for Rel5.**
- **WI updates to replace the MAPsec WI and Key Management WI with NDS-MAP and NDS-IP Work Items**
- **NDS MAP will be updated with CRs to include message flows when these are completed**

Multimedia Codecs

- **Multimedia Codecs and Protocols for Conversational Packet-Switched Services**
  - **TS 26.235 applies to Release 5**

LCS

- **Work clarified in separate tdoc.**

UE Testing (Rel4)

- ***The following testing activities are presented for approval***:

Work item	Completion date
Testing UMTS 1800/1900	TSG T#15, Mar 02 - prose TSG T#19, Mar 03 - TTCN
Testing Layer 2 and layer 3 protocol aspects (SIG)	TSG T#15, Mar 02 - prose TSG T#20, Jun 03 - TTCN
LCR_TDD, Testing RF Radio Transmission and Reception (RF)	TSG T#14, Dec 01 (started!)
Testing Emergency call enhancements for CS based calls (SIG)	TSG T#14, Dec 01 - prose TSG T#15, Mar 02 – TTCN
Optimisation of Test Time, RF Aspects (FDD) (RF)	TSG T#15, Mar 02 (started!)
Optimisation of Test Time, RF Aspects (TDD) (RF)	TSG T#15, Mar 02 (started!)
Extensions to R99 Test cases (SIG), covers the completion of FDD prose and TTCN	TSG T#15, Mar 02 - prose TSG T#17, Sept 02 – TTCN
Maintenance of the R99 test specification and test cases (SIG)	On going
Creation of the Release 99 TCs for TDD, prose and TTCN (SIG)	TSG T#16, Jun 02 - prose TSG T#18, Dec 02 - TTCN
Testing of RAB support for RoHC	TSG T#16, Jun 02

OSA enhancements (Rel4)

Rel4 part is now 100% complete

- **Stage 1 in 22.127 (S1), Stage 2 in 23.127 (S2)**
- **Stage 3 parts in 23.127 removed and transferred to Stage 3 in 29.198-series (N5)**
- **Stage 3 completed by N5 in co-operation with ETSI SPAN12 and Parlay (29.198/998-series).**
- **Problem: intra-3GPP co-ordination**
  - **S1 OSA ad-hoc weak lead, S2 OSA ad-hoc "rotating" convenor, N5/S5 work overlap (Charging), S3/N5 communication (Security), S1/T2 communication (Retrieval of Terminal capabilities),…**

Charging and OAM&P (Rel4)

- **Principles, high-level requirements and architecture: completed at TSG#12 (Rel4)**
- **Configuration Management: 95%, 5% re-classified Rel5 (Rel4, 100% complete)**
- **Fault Management: 80%, 5% for TSG#13, 15% re-classified Rel5 (Rel4, 95% complete)**
- **Performance Management: 50%, 50% for TSG#13, 10% re-classified Rel5 (Rel4, 85% complete)**
- **Charging Management (Rel4 and 5): 80%, 100% targeted at TSG#13 (Rel4, 80% complete)**
- **TSG Approval Targets:**

  90% of Rel4 at TSG#12 **100% of Rel4 at TSG#13**

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UTRAN O&M

Objective: To capture procedures and guidelines for identifying solutions to manage a multi-vendor UTRAN effectively.

- **100% complete (Rel4) – TR 32.800 V1.0.0**
- **TSG Approval Target: 06/01 (TSG#12)**

Release 5 features

List of Rel 5 Features (1/2)

Unique ID	*Title*	*Release*
2	Evolutions of the transport in the UTRAN	partly R5
2476	High Speed Downlink Packet Access	Rel5
2481	Enhancement of Broadcast and Introduction of Multicast Capa	Rel5
1216	Improvements of Radio Interface	partly R5
9	RAN improvements	partly R5
1273	Provisioning of IP-based multimedia services	Rel5
1652	Emergency call enhancements	partly R5
1517	Global Text Telephony	Rel5
1367	VHE enhancements	partly R5
1637	OSA enhancements	partly R5
1638	CAMEL phase 4	Rel5
2464	MExE enhancements Rel-5	Rel5
1625	Wideband Telephony Service - AMR	Rel5
1826	Terminal interfaces	partly R5

List of Rel 5 Features (2/2)

Unique ID	*Title*	*Release*
1536	Location Services enhancements	partly R5
1560	UICC/(U)SIM enhancements and interworking	partly R5
1800	(U)SIM toolkit enhancements	partly R5
1571	Security enhancements	partly R5
1365	Support of Push Services	Rel5
1142	Charging and OAM&P	partly R5
2062	Subscription Management	Rel5
2243	Intra Domain Connection of RAN Nodes to Multiple CN Nodes	Rel5
several	GERAN issues	Rel5
2499	Support of Presence Capability	Rel5
2507	Display of Service Provider name on UE	Rel5
2520	User Equipment Management	Rel5
2527	Emergency calls without UICC/SIM in netw. with IMS	Rel5
2556	End to End QoS for PS Domain (including IMS)	Rel5
2569	Messaging enhancements Rel-5	Rel5

Evolutions of the Transport in the UTRAN (Rel5)

- **IP Transport in the UTRAN (R3) – 75 % completed. Most of the study areas are complete, but still a number of agreements to be made. TR 25.933 v1.1.0 presented to TSG-RAN #12 for information. No CRs for RAN3 specifications are provided.**
  - **Layer 1 and Layer 2 independence – Some agreements have been made, but some remaining agreements are required.**
  - **Radio Network Signalling Bearer – Agreements are required.**
  - **Backward compatibility with R99/coexistence with ATM nodes – No agreements yet.**
  - **Synchronisation – Not started.**
  - **Security – RAN3 is waiting for SA3 response on security aspects.**
  - **Iu-cs/Iu-ps harmonisation – No agreements yet.**
- **Evolution of transport in UTRAN and GERAN (R3) – Rel5. This WI is not complete. No work was done on this WI.**

HSDPA (1/3)

- **High Speed Downlink Packet Access (R2)**
  - **TR 25.855 captures working assumptions/open issues between R1/R2. Version 1.0.0 at RAN #12. Substantial progress:**
    - **Agreement on protocol model with very few open issues**
    - **Agreement on requirements for evaluation of techniques**
    - **All proposals on signalling approach on the table and agreement on range of bits required for signalling**
    - **Agreement on most HS-DSCH transport channel attributes and physical channel characteristics**
    - **Agreement on MAC architecture**
    - **Agreement on requirements and comparison criteria for HARQ protocols**
    - **Achievement of large commonality in the TDD and FDD approaches in signalling**

HSDPA (2/3)

- **Physical Layer (R1)**
  - **Focus on simulation assumptions/results, physical layer structure, UE complexity, advanced receiver proposals.**
  - **Open issues include Link Level Simulations with HARQ (Chase Combining), Receiver Studies, TDD Processing and Buffering Complexity, ARQ details and Turbo coder operation with bit/symbol level combining, Remaining transport channel characteristics such as TTI length**
- **Layer 2 and 3 aspects (R2)**
  - **Focus on HARQ protocol. A number of proposals cover all possibilities. Choice planned to be made during the next few R2 meetings.**

HSDPA (3/3)

- **Iub/Iur protocol aspects (R3)**
  - **Initial contributions on the requirements for evaluating proposals and the UTRAN model.**
  - **Joint R2/R3 meeting planned in August.**
- **RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing (R4)**
  - **No work has been identified yet.**

Improvements of Radio Interface Rel5 (1/3)

- ***Improvements of inter-frequency and inter-system measurement*** **(R1) – Discussion just started**
- ***FDD BS classification*** **(R4) – on schedule (to be finished 09/01)**
- ***TDD BS classification*** **(R4) – finished**
- ***Hybrid ARQ II/III*** **(R2) – No progress on this WI but a number of proposals have been made in R1 and R2 in the framework of HSDPA work item.**
- ***Improved usage of downlink resource in FDD for CCTrCHs*** **(R2) – No Progress since RAN #11**
- ***Terminal power saving feature*** **(R1) – No progress**

Improvements of Radio Interface Rel5 (2/3)

- ***UMTS 1800*** **(R4) – on schedule**
- ***UMTS 1900*** **(R4) – on schedule**
- ***Multiple Input Multiple Output antennas (MIMO)*** **(R1)**
  - **No Progress**
- **Enhancement on the DSCH hard split mode (R1)**
  - **In progress (Skeleton TR was agreed in R1#20)**
- ***Gated DPCCH transmission*** **(R1)**
  - **in R1#20 it was decided to put this WI on hold until significant benefit is shown over the existing feature.**

Improvements of Radio Interface - FS (3/3)

(FS = Feasibility Studies)

- ***FS on Fast Cell Selection (FCS) for HS-DSCH*** **(R1) – No Progress**
- ***FS on Radio link performance enhancements*** **(R1)**
  - **– Tx-diversity : TR 25.869 *was agreed in R1#20***
  - **– For other topics : Enhancement of SSDT was discussed.**
- ***FS on USTS*** **(R1) – R3 concluded USTS is feasible given a low mobility environment.**
  → WI proposed to be derived from this FS for Rel-5 in RAN#12
- ***FS on improved common DL channel for Cell-FACH state*** **(R2)**
  - **– No work has been identified, and this SI is proposed to be closed down in RAN#12.**
- ***FS on UE antenna efficiency test method performance requirements*** **(R4) – finished, now evaluating whether to create WI or not.**
- ***FS on the re-introduction of the downlink SIR measurement*** **(R4)**
  - **– just started**
- ***FS on mitigating the effect of CPICH interference at the UE*** **(R4)**
  - **– on schedule**

RAN improvements Rel5 (1/2)

- **Radio Link Timing Adjustment (R3)**
  - **Work just started (TR in version 0.1.0)**
- **Separation of resource reservation and radio link activation (R3)**
  - **Work just started (TR in version 0.1.0)**
  - **Several open issues have been identified.**
- **Improvement of Radio Resource Management across RNS and RNS/BSS (R3)**
  - **The SI sheet has been reviewed as requested by TSG-RAN. A skeleton TR was agreed as version 0.0.2.**

RAN improvements Rel5 (2/2)

- **Traffic Termination Point Swapping (R3)**
  - **It is proposed to rename this WI to "Re-arrangement of Iub Transport Bearers"**
  - **Work has started with a TR agreed as version 0.1.0. The TR contains the scope, introduction part, requirements and open study areas.**
- **Node B synchronisation for 1.28 Mcps TDD (R1)**
  - **A skeleton TR has been agreed, but no actual technical discussion has taken place so far.**
- **RAB support enhancement (R2)**
  - **No progress has been made since RAN #11.**

IP-based Multimedia Services (1/2)

- **Stage 1 (22.228 v.5.1.0): new work identified: UE functionality split, Multimedia capabilities. In addition, an IMS Framework document is being produced (22.941). CS domain based services is out of scope, although interworking between CS and PS based services is. Work is ongoing to produce basic and advanced examples for IMS services.**
- **Stage 2 (23.228 v.5.0.0): corrections and main lacking issues (e.g. security, CAMEL/OSA in IMS, basic interworking) being actively developed, planed to be completed by August.**

IP-based Multimedia Services (2/2)

- **Detailed stage 2 and Stage 3 progressing at N1 (TS 23.218, 24.228 and 24.229). TS 24.228 v1.0.0 is for information to CN#12**
- **Security aspects: expected early delivery (v.1.0.0 at SA#12). New work identified related to Network Hiding (see new WID).**
- **Work on Charging just started at SA5**

Proposed improvements to the Work Plan in separate tdoc. WID revised.

Codec aspects Rel5

- **AMR-Wide Band Characterisation: Phase 1A completed, Phase 1B is under way**
- **Tandem Free Operation: inclusion of AMR-WB is under way**
- **Wideband Codec: 8-PSK performance left for Rel-5. A list of Uncovered Network Aspects of the AMR-WB Feature to be discussed and decided at SA#11. Characterisation Phase AMR-WB (Phase 2) is under preparation**
- **Audio visual terminal characteristics: Harmonization for terminal “acoustics” in GSM and 3G ongoing (requirements in TS 43.050 / TS 26.131, test methods in TS 51.010 / TS 26.132)**

Emergency call enhancements

- **New WID as feature**
- **Emergency calls from UEs without UICC/SIM in Networks containing an IMS**
  - **SA2 work on 23.221, 23.060 and 23.228 targeted for TSG#13**
  - **Stage 3 (mostly by CN1?) targeted for TSG#15**
- **The 'old' feature Emergency call enhancements for IP & PS based calls**
  - **Requirements covered by S1 in 22.228**
  - **No progress since TSG#11. Stage 3 completion depends on the IMS progress.**

VHE enhancements Rel5

- **SA1 has now completed VHE stage 1: TS 22.121 to be raised to v.5 at SA#12**
- **Stage 2: focusing on characterisation of User Profile. Charging aspects introduced in the Plan.**
- **No stage 3 identified.**

OSA enhancements Rel5

- **Stage 1:**
  - **SA1 has elaborated a new BB called "Interaction with Rel-5 features", with WT "Access to Presence information", "Access to User Profile and Policy Management".**
  - **SA1 has updated its timescales for OSA to SA #13 and SA #14.**
- **Stage 2: little progress. Lack of permanent contact point.**
- **Stage 3: BB on OSA Stage 3 for approval at N#12 (see NP-010331). No technical work started (waiting for Stage 1 and 2 stabilisations).**

GTT

- **Work clarified. Feature restructured in separate tdoc. WID revised.**
- **Work almost completed. Remaining issues:**
  - **Terminal aspects (just started)**
  - **SIP Activation and transport**
  - **Data Channel Activation and transport**

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LCS Rel5

- **Work clarified in separate tdoc. WID revised.**

CAMEL phase 4 (1/2)

- **Stage 1: no new work identified at this time**
- **Stage 2 and 3: draft TSs under development**
- **Progress on CAMEL4 BBs:**
  - **Interactions with Optimal Routing: almost complete**
  - **Call Party Handling: on schedule, progress due to adHoc**
  - **Mid call procedure for MO and MT calls: on schedule**
  - **CAMEL for IMS: wait for Stage 2 stabilisation.**
  - **CAMEL applicability to media streams like VoIP: work on standstill. Service requirement and architecture is open.**
  - **CAMEL control over MT SMS: on schedule**

CAMEL phase 4 (2/2)

- **Progress on CAMEL4 BBs (continuing):**
  - **Inclusion of flexible tone injection: almost complete**
  - **Charging notification to the CSE: some progress**
  - **Enhancements of dialled services: some progress**
  - **Provision of location information of called subscriber: on schedule**
  - **Notification of GPRS mobility management to CSE: some progress**
- **New functionalities added to CAMEL4:**
  - **Inclusion of ODB data in the CSE-HLR interface: no progress yet**
  - **Location information during an ongoing call (Handover DP): some progress**
  - **GPRS Any Time Interrogation: no progress yet**

MExE Enhancements (Rel5)

- **MExE Improvements and Investigations: on schedule. Main enhancements are:**
  - **support of VHE User Profile**
  - **investigate ECMA "Common Language Infrastructure" Support as Classmark 4**
  - **USAT/OSA/CAMEL interaction to provided advanced services**
  - **investigate support of terminal management**
- **MExE Security Analysis: no progress (no input). New target completion date: December 2001.**

Messaging Enhancements (Rel5)

- **MMS enhancements: on schedule. Main enhancements:**
  - **MM7 application server interface**
  - **Notification**
  - **Presence**
- **EMS enhancements: behind schedule. Main enhancements (under discussion):**
  - **line or vector based image format**
  - **monophonic and polyphonic Sound formats**
  - **means of sequencing various elements**
  - **support for further Image formats**
  - **more complex elements (forms, menus, session ID etc)**
  - **alternative compression techniques**
  - **EMS in CBS**

USIM aspects Rel5

- **UICC/(U)SIM enhancements and interworking**
  - **Work on Rel 5 part is ongoing**
  - **new Rel 5 BB proposed at TSG-T #12 for "UICC/USIM Transport Protocol"**
- **(U)SIM toolkit enhancements**
  - **"USAT Interpreter" – agreed as delayed Rel 4 at TSGT#11, but still not complete at TSG-T#12 so proposed to move to Rel 5**
  - **new Rel 5 task for test specification for "USAT Interpreter" at TSG-T#12**
  - **in summary, complete for Rel 4, ongoing for Rel 5**

UE Testing Rel5

- ***Several WI identified. Seeking supporting companies!***
  - ***Testing improvement of inter-frequency and inter-system measurement***
  - ***Testing Hybrid ARQ II/III***
  - ***Testing Improved usage of DL resource in FDD for CCTrCHs of dedicated type***
  - ***Testing Terminal Power saving features (SIG)***
  - ***Testing DSCH power control improvement in soft handover (SIG/RF)***
  - ***Testing Node B synchronisation for TDD (SIG/RF)***
  - ***Testing Stage 2 signalling (SIG)***
  - ***Testing Stage 3 for emergency calls and packet emergency calls in general (SIG)***

Subscription Management

- Operational Requirements and Specifications (TS 32.140).
  - Subscription Management is a feature that permits operators to provision services for a specific customer subscription (i.e. to create, amend and delete subscriber subscription data).
  - Estimated 40% complete
- Co-ordination ongoing with other working groups on e.g.:
  - VHE Enhancements & User Profile (SA1), HSS Interface (CN4).
    Draft 32.140 sent for information to these groups 04/01.
    Awaiting feedback from SA1, CN4 since 04/01.
- Completion of requirements planned for 09/01
- TSG Approval Target: 12/01 (TSG#14)

Support of Presence Capability

- **Work on Presence Capability (22.141) is progressing swiftly in SA1. Approval is expected at SA #14.**
- **Stage 2 and 3 not started yet**

Terminal Interfaces Rel5

- **Wide Area Data Synchronization: vObjects and Other Constructs for Use in Data Synchronization: no progress (no input)**
- **Terminal Local Model enhancements: work started. Aspects of UE Functionality Split to be accommodated**

GERAN WI status Rel5 (1/2)

All on-going

- **Evolution of transport in UTRAN and GERAN**
- **GERAN/UTRAN interface evolution of Iu-ps : impacted by TR on “optimised speech”**
- **GERAN/UTRAN interface evolution of Iu-cs**
- **Evolution of the transport for A interface: define a new A/Ater interface**
- **GERAN support for IP multimedia: header adaptation, signalling, MS & BTS Conformance tests**

GERAN WI status Rel5 (2/2)

- **Alignment of 3G functional split and Iu: GERAN user / control plane, Iu-rg, voice over ps / cs, MS & BTS Conformance tests**
- **GERAN enhancements for streaming services: SDU discard, use of ECSD**
- **Real Time QoS for packet services including VoIP (UTRAN): Handover PS**
- **Wideband telephony services: (UMTS) 8-PSK support, MS + BTS Conformance test for AMR Wideband**
- **LCS for GERAN Stage 2 and 3**

Proposed new features

Extension of Streaming

New Work Item on "Extended Transparent End-to-End Packet Switched Mobile Streaming Applications" proposed by S4.

- **Stage 1 work already started: CRs to 22.101 are already being proposed, but it may result in a separate stage 1.**

Broadcast MM

- **SA1 is proposing a new Feature: enhancements on Broadcast and Introduction of Multicast.**
- **A draft separate stage 1 has been elaborated.**

UE Management

- **New WID proposed in SP-010234. Target completion: 06/02 (TSG#16)**
  - **UE Management defined as a collection of functions and applications to allow operators and potentially manufacturer to remotely manage UE (e.g. to extend service and network management, fault isolation and resolution to the remote UE).**

Conclusion

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- **Too early to identify if work is on time or not for Rel5: wait for September for a more precise review.**