

3GPP TSG CN/RAN/T/SA #15
Jeju-do, Korea, 5-14 March 2002

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MCC Review of the Work Plan at Plenaries #15

This presentation does not include the results of TSG
CN, RAN, T and SA #15

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Content

- Review of Rel-4 and Rel-5 testing activities
- Review of progress on all features presently anticipated for Rel-5
- Features with unclear status (Rel-5 or Rel-6?)
- Review of Rel-6 features
- Summary of Foreseen Completion Dates
- Conclusion

In **Black**: Name of the task

In **Red**: important statement

In **Green**: question to plenary

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Testing activities



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UE Testing Rel-4 (1/2)

- **Note: R99 test activities not covered here**
- **Not started yet:**
 - **Testing of RAB support for RoHC** (*delayed to Sep 02*)
 - **Testing Emergency call enhancements for CS based calls (SIG)** (*delayed to June 02 for prose and Dec 02 for TTCN*)
- **Presented for approval:**
 - **WID on Conformance Testing of UE MExE capability (Feasibility study)**

UE Testing Rel-4 (2/2)

- **Ongoing activities** (% complete, foreseen completion date):
 - *LCR_TDD, Testing RF Radio Transmission and Reception (RF)* (80 %, June 02)
 - *LCR_TDD, Testing Layer 2 and 3 protocol aspects (SIG)* (10%, **delayed** to Dec 02 for prose and Dec 03 for TTCN)
 - *Optimisation of Test Time, RF Aspects (FDD and TDD) (RF)* (40 %, June 02 for both)
 - *Extensions to R99 Test cases (SIG, covers the completion of FDD prose and TTCN)* (25%, **delayed** to Dec 02 for prose and mar 03 for TTCN)
 - *Maintenance of the R99 test specification and test cases (SIG)* (50%, ongoing)
 - *Creation of the Release 99 TCs for TDD, prose and TTCN (SIG)* (25%, Sep 02 for prose and Mar 03 for TTCN)

UE Testing Release Independent

- **Testing UMTS 1800/1900:**
 - RF part **finished**
 - Signalling expected for June 02 (prose) and Mar 03 (TTCN)
- **Optimisation of Test Time, RF Aspects (FDD and TDD)**
 - 70% completed, **delayed** to Sept 02

UE Testing Rel-5

WI under study and seeking supporting companies (no change since last meeting)

- Improvements of Radio Interface
 - Testing improvement of inter-frequency and inter-system measurement
 - Testing Hybrid ARQ II/III
 - Testing Improved usage of downlink resource in FDD for CCTrCHs of dedicated type
 - Testing Terminal Power saving features
 - Testing DSCH power control improvement in soft handover
- RAN Improvements
 - Testing Radio access bearer support enhancements – TM except ROHC (ROHC belongs to Rel-4)
- Emergency call enhancements
 - Stage 3 for emergency calls and packet emergency calls in general (Core requirement and testing moved to Rel6)

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Rel-5 Features



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Complete List of Features (1/2)

| Unique ID | Title |
|-----------|---|
| 2 | Evolutions of the transport in the UTRAN [in progress] |
| 4 | Evolutions of the transport in the CN [in progress] |
| 2476 | High Speed Downlink Packet Access |
| 1216 | Improvements of Radio Interface [in progress] |
| 9 | RAN improvements [in progress] |
| 1273 | Provisioning of IP-based multimedia services |
| 34001 | Extended Transparent End-to-End PS Streaming Service |
| 1652 | Emergency call enhancements [in progress] |
| 1517 | Global Text Telephony |
| 1637 | OSA enhancements [in progress] |
| 1638 | CAMEL phase 4 |
| 2464 | MExE enhancements Rel-5 |
| 1625 | Wideband Telephony Service - AMR |
| 1826 | Terminal interfaces |
| 1536 | Location Services enhancements [in progress] |
| 1560 | UICC/(U)SIM enhancements and interworking [in progress] |

Complete List of Features (2/2)

| Unique ID | Title |
|------------------|--|
| 1800 | (U)SIM toolkit enhancements [in progress] |
| 1571 | Security enhancements [in progress] |
| 1861 | Miscellaneous UE Conformance Testing Activities |
| 1365 | Support of Push Services |
| 1142 | Charging and OAM&P |
| 2062 | Subscription Management |
| 2243 | Intra Domain Connection of RAN Nodes to Multiple CN Nodes |
| 2320 | GERAN improvements |
| 2499 | Support of Presence Capability |
| 2507 | Display of Service Provider name on UE |
| 2520 | User Equipment Management |
| 2527 | Emergency calls without UICC/SIM in netw. with IMS |
| 2556 | End to End QoS for PS Domain including IMS |
| 2569 | Messaging enhancements Rel-5 |
| 13000 | Service Change and UDI Fallback |
| 35009 | Trace Management |

Evolutions of the Transport in the UTRAN

IP Transport in the UTRAN (R3) – Rel-5. Completed.

- RAN WG3 believes that the IP-Transport Work Item and the associated CRs to specifications is completed enough to ensure exhaustive implementation and use of the IP-Transport option in UTRAN.
- All change requests needed for the introduction of IP Transport option in the UTRAN are submitted to TSG RAN#15 for approval.
- TR 25.933 v2.0.0 will be submitted to TSG RAN#15 for approval.

Evolution of transport in UTRAN and GERAN (R3) – Rel-5.

- **No work was done** on this WI. WI is not complete.
- Work on-going in TSG GERAN.

Evolution of the transport for CN

- *SUA Feasibility Study*
 - *Finished at TSG CN #14*

HSDPA (1/2)

Or “High Speed Downlink Packet Access”

Completed.

- **General issues (R2)**
 - Completion date (core specifications): March 2002.
 - Joint R1/R2 and R2/R3 meetings in February.
 - Substantial progress:
 - Corrections and updates to Stage 2 description in TS 25.308
- **Physical Layer (R1)**
 - Almost all key issues have been fixed.
 - TR to be submitted for approval.
 - CRs to core specifications to be submitted for approval.

HSDPA (2/2)

- **Layer 2 and 3 aspects (R2)**
 - CRs to core specifications to be submitted for approval.
- **Iub/Iur protocol aspects (R3)**
 - CRs have been written for all RAN3 specifications.
- **RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing (R4)**
 - Good progress, completion expected in June.

Improvements of Radio Interface (1/4)

Items (almost) on schedule:

- *Enhancement on the DSCH hard split mode (R1): On schedule. CRs to be submitted to RAN#15*
- *BS Classification for 1.28 Mcps TDD option (R4): Completion date moved to June.*
- *TDD BS classification (R4): Agreement on all topics, the work is almost completed. The CRs will be presented in June, R4 proposes to keep the WI in Release 5.*

Items in progress but delayed:

- *Multiple Input Multiple Output antennas (MIMO) (R1): Little progress*
 - *FDD BS classification (R4): Completion date moved to December*
- =>RAN#15 shall take a decision to keep them or not in Rel5**

Improvements of Radio Interface (2/4)

Items finished:

- *UMTS1800/1900 (R4). Finished at RAN#14*

No progress on:

- *Improvement of inter-frequency and inter-system measurement (R1)*
- *Improved usage of downlink resource in FDD for CCTrCHs (R2) (not for Rel5)*
- *Terminal power saving feature (R2) (“basket” feature)*

Improvements of Radio Interface (3/4) Feasibility Studies

FSs ongoing:

- Radio link performance enhancements (R1): Work on progress. TR on Tx-diversity to be provided to RAN #15 for information*
- Deployment of UTRA in additional spectrum arrangements (R4).
Work on progress*
- Improvement of inter-frequency and inter-system measurements for 1.28 Mcps TDD (R1) Small progress. Behind schedule*
- Fast Cell Selection (FCS) for HS-DSCH (R1): No progress*
- UTRA Wide Band Distribution Systems (R4) Completion date moved to March 2003, depends on the progress on micro-pico BS classification.*

Improvements of Radio Interface (4/4) Feasibility Studies

FSs finished:

- Mitigating the effect of CPICH interference at the UE (R4):
Completed. It was agreed in R4 to create a Rel-6 WI.***
- FS on the re-introduction of the downlink SIR measurement
(R4). Finished at RAN#14***

FS proposed to be re-opened:

- FS on UE antenna efficiency test method performance
requirements (R4). The FS was closed in RAN#14. It was agreed
to follow the work done by CTIA. A number of issues have
arisen, R4 considers the Study should be reopened.***

=>RAN#15 shall take a decision

RAN improvements (1/2)

- **On schedule:**
 - *RL Timing Adjustment (R3)*
 - **Completed.** TR 25.878 will be submitted for approval. CRs will be submitted to TSG RAN#15 for approval.
 - *Separation of resource reservation and radio link activation (R3)*
 - **Completed.** TR 25.879 will be submitted for approval. CRs will be submitted to TSG RAN#15 for approval.
 - *Node B synchronisation for 1.28 Mcps TDD (R1)*
 - **Completed.** TR 25.836 will be submitted for approval. CRs will be submitted to TSG RAN#15 for approval.
 - *RRM optimization for lur and lub (R3)*
 - **Completed.** CRs submitted to TSG RAN#15 for approval.

RAN improvements (2/2)

- *Re-arrangement of Iub Transport Bearers (R3)*
 - **Completed.** TR 25.880 will be submitted for approval. CRs will be submitted to TSG RAN#15 for approval.
- **Ongoing:**
 - *SRNS Relocation Procedure Enhancement*
 - As RAN3 did not have any time to handle this SI during the last two RAN3 meetings, the **proposed Target date is TSG RAN#16.** Therefore the level of completion has not changed since the last TSG-RAN meeting: 80%.
 - *RAB support enhancement (R2)*
 - New work **started** by RAN 2: RFC 3095 context relocation in SRNS relocation. TR 25.860 v1.0.0 submitted to TSG RAN #15 for information.

IMS (1/8)

Or “IP-based Multimedia Services”

- **Stage 1 in 22.228 already in v.5.**
 - Corrections on ISIM, access independence, identities, messaging and group management.
 - Change to 22.115 for charging (including Pre-paid)
- **Overall Stage 2 in 23.228 in v.5 since SA#13.**
 - Remaining Stage 2 issue solved for:
 - Charging (including on-line charging): TR 23.815 to be presented in v.2 at SA#15
 - Lot of corrections and clarifications, e.g. on QoS handling, IP v4/v6 interworking (still not solved), mapping PDP context(s) <-> media component(s), Local services, use of pre-Rel-5 USIM, SIP compression (mandatory).
- **Detailed Stage 2 and Stage 3: see next slides**

IMS (2/8)

Now provided for **approval** (formal change control)
from CN1 :

- Stage 2 TS 23.218v201 on call model (100 %)
- Stage 3 TS 24.228v202 on information flows (85%)
- Stage 3 TS 24.229v201 on protocol details (85%)

Freezing of TS 23.218 is requested, but **NOT**
freezing TSs 24.228 and 24.229 now.

Lot of dependencies to IETF work for Stage 3.

Completion dates for IETF dependencies to be clarified.

- Performance characterisation of codecs : a TR on the issue still to be started: not critical

IMS (3/8)

Security aspects (“Access Security for IMS”):

- **Stage 3** targeted for **June 2002** approval
- << problem for CN: 33.203 presented for **approval** at SA#15. 2 mechanisms for Integrity Protection still under consideration (Annex C): choice to be made when IETF drafts more stable. This open issue should be solved in **June 2002**>>.
 - <<SA3 stage 2 may delay CN stage3 - CN wish SA3 to finalize work in April timeframe>>

IMS (4/8)

Aspects completed:

- Specification of SLF (Subscription Locator Function): **completed** at N4
- <<CN4 have fixed protocol for subscription locator – however this does not mean the SLF is complete Why do we mention entities and not simply the interface (Cx) --- Suggest removal of this slide.>>

IMS (5/8)

- **Aspects not yet stable:** << Propose slide listing interfaces with status \ another slide to include 'functions' only (SIP compression etc.)>>
 - SIP compression : Stage 2 done, Stage 3 to be completed by **June** by N1 (also linked to IETF dependencies)
 - Go and interface: see slide on end-to-end QoS (**June**)
 - Cx <<Sh, Si and Dx>> interface: still ongoing, to be completed by **June**
 - Lawful interception. 33.108 (Handover Interface, Stage 3) for information at SA#15: Target completion date is **June** but does not yet cover multimedia aspects. Multimedia aspects to be clarified by the SA3-LI group.
 - << Authentication issue need to be addressed >>
 - << Key transport issue needs to ... >
 - << integrity protection issue>>

IMS (6/8)

- Other aspects << not yet stable >>.
- To be confirmed at TSG#15 if planned for Rel-5 or Rel-6:
 - Header removal/compression in UTRAN and/or GERAN
 - IMS local services: Stage 2 just defined (CR 149 to 23.228), Stage 3 not started << CN1 do not intend to do work on this for Rel-5 >>
 - Sh and Si interfaces are of concern for Rel-5
 - CAMEL in IMS: << link to Si >> see separate slide

IMS (7/8)

still << not yet stable >> (cont'd):

- IMS to PS interworking: CN3 has decided to move the finalisation date to **March 2003** => **Moved to Rel6 << or stay in Rel5 >>??**
 - Done for user plane (use of transcoder)
 - Location of interworking function for the control plane still under discussion in SA2.
 - Interworking between 3GPP profile of SIP and IETF SIP still under discussion at CN3
 - IP v4/v6 interworking not solved at S2
- IMS to CS interworking: CN3 has decided to move the finalisation date to << CN pushed to Dec 2002 >> **June 2003** => **Moved to Rel6 << or stay in Rel5 >>?**
 - Work for TS 29.163 is completed but ITU-T SG11 part on SIP to BICC / ISUP interworking (moved from February 2002 to November 2002) remains the blocking point

IMS (8/8)

- **Moved to Rel6:**
 - Identification portability (was number portability - << is this statement true? >>) in IMS
 - << CN propose move of IMS Local services to Rel6 – cover in Rel6 part of slides>>
 - << Load of rubbish – please delete slide>>>

Extended Streaming

(in full: Extended Transparent End-to-End Packet Switched Mobile Streaming Applications)

Feature completed at SA#15:

- **Stage 1: TS 22.233 presented to SA#15 for approval, and CR to 22.105 on End-user performance expectations-Streaming Services**
- **Stage 2: TS 26.233 and TS 26.234 Rel-5 provided through CRs to Rel-4, presented to SA#15 for approval**
- **Stage 3: TS 26.236 “Transport Protocol for PS Conversational Multimedia applications” presented to SA#15 for approval**
- **LS to SA4 on PSS Rel-6 Work Program**

Emergency call enhancements

For PS and IMS: for **Rel-6** as decided at SA#14.

For **Rel-5** the decision is to use the CS emergency call feature, and CRs to do this is included in the IMS TSs now for **approval**.

No activity << incorrect - CN1 has done some work in this area >> for CS nor for PS emergency call enhancements for Rel-5.

Global Text Telephony

- **Completed** and closed at SA#12
- << CN4 still have an outstanding issue on GTT - to be checked Link to bearer indep. >>

Reminder: VHE enhancements deleted at TSG#14

OSA (1/3)

Feature re-structured << CN believe these 3 slides are out of date - needs update from SA1 ?? >>

- **Stage 1 is completed – CRs on:**
 - Security requirements on User Profile Management
 - OSA support of a Generic Network Interface Function
 - Retrieval of IP Session Information
 - Charging Requirements
 - OSA WID update for Release 6

OSA (2/3)

Progress on OSA BBs:

- **Call Control: completed**
- **User Interaction : completed**
- **Mobility: open issues remain, reference to the LCS architecture to be added.**
- **Account Management: completed, No associated architecture expected**
- **Presence: to be completed in SA2#23**
- **Terminal Capabilities : open for IMS (certainly in R6), current support is for WAP and MExE terminals only (same as R99 and R4). Still open for SA1. Linked to GUP stage 2 and/or terminal capabilities WI (if created)**

OSA (3/3)

- **Data Session Control: Nothing new for R5**
- **User Profile Management (and associated security – see OSA security task): open, lack of network support for R5, rely on GUP stage 2 (not started yet)**
- **Charging: may be completed in SA2#23, based on charging architecture status**
- **Information Services open, no network support in R5.**
- **Network Capabilities: completion linked to GUP stage 2 (not started yet). Low priority level.**

N5'S INPUT MISSING << Will be provided by CN5 officials by Friday 8th >>

CAMEL phase 4 (1/3)

- **Stage 2 and Stage 3: Draft TSs ,, in the form of mega CRs >> are sent to CN#15 for information. CN2 recommendation is to approve these specifications in June.**

Progress on CAMEL4 BBs:

Completed:

- Interactions with Optimal Routing
- CAMEL control over MT SMS
- Provision of location information of called subscriber
- Inclusion of ODB data in the CSE-HLR interface
- Inclusion of flexible tone injection: CPH interaction is FFS

CAMEL phase 4 (2/3)

Completed 80% and more, to be completed by **June** (still proposed for Rel-5):

- Call Party Handling
- Notification of GPRS mobility management to CSE
- Location information during an ongoing call
- GPRS Any Time Interrogation
- Mid call procedure for MO and MT calls

SA1 agreed removal of the feature “Enhancements of dialled services”. If SA#15 approves related CR, this BB will be removed from the WP for Release 5.

CAMEL phase 4 (3/3)

CN2#22 agreed to move target date to June (little << some >> progress) for:

- Support of CAMEL by the IMS
- Charging notification to the CSE

=>TSG #15 to decide if still part of Rel-5

SA1 agreed introduction of “Transfer of the IMEI (with SW version) to the CSE”. If SA#15 approves related CR, this item will be added to the WP.

<< proposed CAMEL split needs to be reflected in these slides >>

MExE Enhancements Rel-5

MExE Improvements and Investigations:

- **Completed.** Main enhancements:
 - investigate ECMA “Common Language Infrastructure” Support as Classmark 4
 - General enhancements and improvements
 - security enhancements

MExE Security Analysis:

- **Delayed.** Little progress due to lack of input, scheduled for **June 2002** but unlikely to be completed

WB-AMR (1/2)

Globally completed.

Presented for Completion:

- Codec specifications : **COMPLETED**
- Characterisation tests : phase 2 on-going **not critical**
- AMR Wide Band and Narrow-Band Interworking : technical work done **COMPLETED**
- Interworking of AMR WB with Fixed Network Wideband Legacy Codecs : **not required/needed**
- AMR WB Floating point : TS 26.204 v. 2.0.0 release 5 presented to SA #15 for approval **COMPLETED**
- TFO AMR WB : TS 28.062 Release 5 provided through CRs to Release 4 version **COMPLETED**

WB-AMR (2/2)

- CN aspects << completed and not required items will be updated >>:
 - Codec selection and GSM-UTRAN interworking **proposal made**
 - TFO and TrFO signalling (50% ready); **not critical**
 - Radio Access Bearer optimisation; **on-going**
 - Radio Access Bearer renegotiation (impact at least on 23.018)
 - Tones and announcements : **not required /low priority**
 - Billing, accounting and call detail record aspects; **on-going**
 - WB Conferencing and WB Voice Group calls; **not critical**
 - Adaptation of subscriber data in HLR/VLR; **on-going <<complete>>**
 - Legal interception. **on-going <<not complete >>**

Terminal Interfaces Rel-5

- **Wide Area Data Synchronization**
 - vObjects and Other Constructs for Use in Data Synchronization
Proposal from T2 to **delete** work item and continue work as part of
the Generic User Profile (Rel-6).
=>TSG T#15 shall confirm
- **Terminal Local Model enhancements**
completed

LCS in Rel-5

- **LCS activities for Rel-5 are:**

- *Location Services for GERAN in A/Gb Mode*
- *LCS for GERAN in Iu Mode*
- *Specification for the Le Interface*
- *Support of the Presence Service Architecture*

– **Stage 1 already completed**

– **Stage 2 completed: 23.871 in v.2.0.0, CRs to 23.271**

– **Stage 3:**

- **Check at CN #15 the status of LCS Stage 3, at least for LCS/Presence interactions << CN1 will define application servers for presence (Sept 2002) – this depends on archi. From SA2 >>**
- **<< all other aspects in CN - complete >>**
- **Location Services for GERAN in A/Gb Mode : completed at GERAN, LCS for GERAN in Iu Mode: on-going at GERAN**
- **UE positioning:**
 - **UE positioning enhancements for 1.28 Mcps TDD: completed**
 - **Open interface between the SMLC and the SRNC within the UTRAN to support UTRAN Rel-4 Positioning: not started**

- **Activities identified for Rel-6: see LCS Rel-6 slide**

UICC/(U)SIM enhancements and interworking

- **“C SIM API”** – Missing info (no MCC T3 support)
- *Reminder: “UICC/USIM Transport Protocol” deleted at T#14.*

(U)SIM toolkit enhancements

- **“USAT Interpreter”** – Missing info (no MCC T3 support)
- *Reminder: “Enhancements to (U)SIM toolkit secure messaging” deleted at T#14.*

=>TSG T#15 are asked to provide info on the completion date for these features

Security Enhancements Rel-5 (1/2)

- Network domain security
 - MAP application layer security (Automatic Key Management):
 - Good progress on 33.200 - Rel-5 CR to be presented to SA#15 for approval << CN will be pushed to complete stage 3 by June 2002 >>
 - NDS/IP:
 - TS 33.210 to be presented to SA#15 for approval
 - << CN will be pushed to complete stage 3 by June 2002 >>

Security Enhancements Rel-5 (2/2)

- FIGS
 - **Still no contribution to SA WG3 and no progress. Deleted from Work Plan by SA WG3 .**
- *Reminder: Protection for user plane data (GTP-U) deleted at SA#14*

Charging and OAM&P

- No information

Subscription Management

- No information

User Equipment Management - Feasibility Study

- No information

Iu-Flex

Full name: “Intra Domain Connection of RAN Nodes to Multiple CN Nodes”

Work **completed** (except for GERAN):

- Stage 2 completed in TS 23.236 at SA#13
- Stage 3 CN:
 - completed for CN1 at CN#14, potentially some CRs to come from CN4
- Stage 3 RAN:
 - Completed for RAN3: CRs and TR 25.875 v2.0.0 are submitted to TSG RAN#15 for approval
- Stage 3 GERAN:
 - Just started at GERAN #8

GERAN (1/3)

Ongoing Work Items for Release 5 (all in **progress**):

- GERAN/UTRAN interface evolution 1 (evolution of Iu PS)
- GERAN/UTRAN interface evolution 2 (evolution of Iu CS)
- GERAN Inter BSC NACC improvements over the Gb Interface
- 8PSK AMR HR
- GERAN enhancements for streaming services 1 & 2
- Intra Domain Connection of RAN Nodes to Multiple CN Nodes:
Overall System Architecture started at GERAN#8
- Uplink TDOA feasibility study started at GERAN#7

GERAN (2/3)

Ongoing Work Items for Release 5 **not started**:

- GERAN improvements 2/3 : MS conformance test for Intra BSC NACC
- GERAN support for IP multimedia : MS and BTS conformance test
- Alignment of 3G functional split and Iu : MS and BTS conformance test
- Enhanced Power Control : MS and BTS conformance test
- Wideband telephony services (UMTS) : MS and BTS conformance test
- Location services (UMTS) : BTS conformance test

GERAN (3/3)

Work Items for Release 5 **completed**:

- Location Services (LCS) for GERAN in A/Gb Mode
- Real Time QoS for packet services including VoIP
- GERAN improvement : Low chip rate TDD option
- GERAN improvement : Gb over IP
- 700 MHz spectrum support (Release 4) : Closed except BTS conformance test on-going
- GB Enhancements Stage 2 / Stage 3 Closed

End-to-End QoS (1/2)

Work ongoing, to be **completed by June**.

- Stage 2 in TS 23.207 already **completed**, lot of CRs, in particular on determining the highest QoS
- No additional reduction of Stage 2 options (still 3 options)
- Stage 3: TS 29.207 (“Policy control over Gs interface”) and 29.208 (“End-to-end QoS signalling flows”) to be presented to CN#15 for information, completion of work expected by CN3 in **June 2002**.

End-to-End QoS (2/2)

- **SA4 issues:**
 - UMTS QoS mapping for both streaming and conversational services applications:
completed
 - QoS parameter values for various media types:
further guidance would be needed/beneficial
from S1 to S4 in order to complete the work:
Ongoing

Messaging Enhancements: MMS

- **MMS (Multimedia Messaging Service) enhancements**

Almost completed

- **MMS REL-5 stage 2 finalised; one open item on stage 3**
- **Main enhancements**
 - Address resolution and Mobile Number Portability (stage 2 + stage 3)
 - MM7 (MMS Relay/Server – MMS VAS Applications) (stage 2 + stage 3)
 - Support of persistent storage in MMS (stage 2)
 - Enhanced interworking issues (stage 2 + stage 3)
- **Open items:**
 - MM7 stage 3 expected for **June 2002**
 - Support of "Recipient Party pays" charging model in MMS (late requirement from SA1 cannot be achieved in Rel-5)
- **MM1 (interface MMS User Agent and MMS Server/Relay) stage 3 will be defined by WAP Forum**
- **Responsibility for Media formats and codecs for MMS has been transferred from T2 to SA4 (TS 23.140 -> TS 26.140). TS 26.140 presented to SA Plenary for **approval**.**

Messaging Enhancements: EMS

EMS (Enhanced Messaging Service) enhancements completed

- **main enhancements**
 - use of extended objects, with compression
 - bitmap graphics, including colour
 - hyperlink IE
 - vector based graphics format
 - monophonic and polyphonic sound formats

Service Change and UDI Fallback (SCUDIF)

- **Stage 1:**
 - CR to 22.101 on Service change and fallback for UDI/RDI multimedia calls
- **Stage 3:**
 - CRs to 24.008, 23.972, 27.001 & 29.007 to be presented to CN#15
- **Work Item Status:**
 - **Almost complete** with the approval of the above CRs. Remaining issue: interworking with ISUP (requirement just added).

Features with Unclear Status (Rel-5 or Rel-6?)

Presence

- Stage 1 already **completed**, still in Rel-5 for SA1
 - Stage 2 **on-going** normally: TR 23.841 presented to SA#15 for information (v.1.0.0)
 - Stage 3 and other aspects (security, charging, testing) **not started**, to be started in <<April 2002>> at N1
- =>TSG CN#15 to give an estimate on time needed to define the Stage 3
- =>TSG SA#15 to confirm to which release it belongs (SA#14 decision was to check at SA#15, SA1 says it's for Rel5)
- Presence Release 6 WID by SA1:
 - maintenance (other WG's will have PS as a R6 item)
 - enhancements (e.g. security, charging, attributes etc.)

UE functionality split

- TR on Feasibility Study from S1 and T2 presented for Approval for Rel-5

Display of SP name on UE

- Stage 1 completed: requirements defined by S1 are still valid
 - Stage 2 & 3: missing info from T3 (no MCC support)
- =>TSG T#15 are asked to clarify the status of this feature**

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Release 6 features



A GLOBAL INITIATIVE

Multimedia Broadcast/Multicast Service (MBMS)

- **Stage 1 CRs on:**
 - **MBMS Broadcast and Multicast Sessions**
 - **Power consumption minimisation for MBMS**
- **Stage 2 progressing well at S2**
- **Stage 3 not started (not at CN nor at <<RAN is but what about T? >>)**

Push Services

Now clarified that it applies to Rel-6

- **SA1's requirements provided for Rel-6**
- **Push Service Service aspects (Stage 1) 22.174 v 0.6.0 sent to all groups**
- **SA2 will work on Stage 2 for Rel-6 (a FS was done for Rel-5)**

Wireless LAN (WLAN)

- **Stage 1 to be presented for information to SA#15**
 - 22.934 V 1.0.0
- **Updated WID for S1 activities on WLAN presented for approval**
- **WID for S2 activities on WLAN presented to SA#15**
- **Stage 3 not started (not yet defined)**

Network Sharing (NetShare)

- **S1 activities started: TR skeleton started, to include:**
 - **Identification of the main scenarios in which network sharing can manifest**
 - **Identify the requirements applicable to any of the scenarios, (to be mainly user's requirement, and possibly security and charging requirements)**
 - **Analyse more in depth the available technical solutions, and check if the existing requirements are sufficient**
 - **Other activities (Stage 2 and 3) not yet started**

MExE Enhancements Rel-6

- ***WID MExE Rel-6 Improvements and Investigations***
presented for approval to TSG-T
- ***WID MExE Run-Time Independent Framework***
presented for approval to TSG-T

LCS in Rel-6

- **Activities identified for Rel-6:**
 - Interactions with 3GPP Generic User Profile
 - Security aspects of enhanced support for user privacy in location services (SA3)
 - GMLC - GMLC interface (SA2)

“IMS Enhancements”

- **WID not created yet**
- **It will include the Rel-5 postponed items and/or the newly created ones.**
- **Moved from Rel-5:**
 - **Identification portability (was number portability) in IMS**
- **Newly created:**
 - **Radio optimisation impacts on PS domain architecture**

Other Release 6 features (1/2)

- ***Generic User Profile:***
 - Work ongoing in SA1, SA2 and T2
 - TR 22.240 V0.6.0 on GUP sent to other groups
 - Investigation ongoing on the degree to which OSA interfaces provide the needed functionality for GUP
- ***Digital Rights Management:***
 - Stage 1 document presented to SA for information (TS 22.242, Version 1.0.0)
- ***Speech Recognition and Speech Enabled Services***
 - Stage 1 (TR 22.243) is stable in SA1.
 - Aurora part belongs to Rel-5.

Other Release 6 features (2/2)

- ***FS on Priority Service***
 - **Work started at SA1**
 - **Priority Service Feasibility Study Technical Report is deemed 75-80% complete**
 - **TR 22.950 presented for information at SA #15**
 - **Feature Code for Priority Service required**

Emergency call enhancements

Rel-6

Emergency calls from UEs without UICC/(U)SIM in Networks containing an IMS

- SA2 work completion target moved from TSG T#16 to TSG#18
- Stage 3 (mostly by CN1?) must re-target its completion date << major impact on stage 3 – completion date unknown probably after TSG#18 >>

Emergency call enhancements for IP & PS based calls with (U)SIM:

- Requirements covered by SA1 in 22.228
- Stage 3 work has started in CN1, but completion depends on the related IMS progress still under discussion in SA2.

3GPP TSG CN/RAN/SA #15
Jeju-do, Korea, 5-14 March 2002

NP-020093_rev. of 0008



Summary of Completion Dates

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Summary

- The two following slides provide a summary of the Foreseen Completion Dates: they provide the number of the TSG meeting at which the feature is completed or anticipated to be completed.
- Abbreviations used in next slides:
 - “UID” = Unique ID (Reference in the Work Plan)
 - “FCD” = Foreseen Completion Date
 - “?” = no clear estimation, to be clarified at TSG#15
 - “+” = and (the feature can be split and the resulting BBs can be completed independently)
 - “several” = the feature consists in a lot of independent BBs with different completion dates
 - In Red: Features particularly relevant

Foreseen Completion Date (1/2)

| UID | Title | FCD |
|------------|--|------------------|
| 2 | Evolutions of the transport in the UTRAN [in progress] | 15 |
| 4 | Evolutions of the transport in the CN [in progress] | 14 |
| 2476 | High Speed Downlink Packet Access | 15 |
| 1216 | Improvements of Radio Interface [in progress] | 16+later |
| 9 | RAN improvements [in progress] | 15+16 |
| 1273 | Provisioning of IP-based multimedia services | 16+later |
| 34001 | Extended Transparent End-to-End PS Streaming Service | 15 |
| 1652 | Emergency call enhancements [in progress] | Del |
| 1517 | Global Text Telephony | 12 |
| 1637 | OSA enhancements [in progress] | 15? |
| 1638 | CAMEL phase 4 | 16+later? |
| 2464 | MExE enhancements Rel-5 | 15+16 |
| 1625 | Wideband Telephony Service - AMR | 15 |
| 1826 | Terminal interfaces | 15 |
| 1536 | Location Services enhancements [in progress] | 15? |
| 1560 | UICC/(U)SIM enhancements and interworking [in progress] | ? |

Foreseen Completion Date (2/2)

| UID | Title | FCD |
|------------|---|------------|
| 1800 | (U)SIM toolkit enhancements [in progress] | ? |
| 1571 | Security enhancements [in progress] | 15 |
| 1861 | Miscellaneous UE Conformance Testing Activities | NA |
| 1365 | Support of Push Services | 18? |
| 1142 | Charging and OAM&P | NA |
| 2062 | Subscription Management | NA? |
| 2243 | Intra Domain Connection of RAN Nodes to Multiple CN Nodes | 15 |
| 2320 | GERAN improvements | GERAN8+9? |
| 2499 | Support of Presence Capability | 18? |
| 2507 | Display of Service Provider name on UE | ? |
| 2520 | User Equipment Management | NA? |
| 2527 | Emergency calls without UICC/SIM in netw. with IMS | 18 |
| 2556 | End to End QoS for PS Domain including IMS | 16 |
| 2569 | Messaging enhancements Rel-5 | 15+16 |
| 13000 | Service Change and UDI Fallback | 15+16 |
| 35009 | Trace Management | ? |



Sorted by Completion Date



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Foreseen Completion Date (1/2)

| UID | Title | FCD |
|------------|---|------------|
| 1517 | Global Text Telephony | 12 |
| 4 | Evolutions of the transport in the CN [in progress] | 14 |
| 2 | Evolutions of the transport in the UTRAN [in progress] | 15 |
| 2476 | High Speed Downlink Packet Access | 15 |
| 34001 | Extended Transparent End-to-End PS Streaming Service | 15 |
| 1625 | Wideband Telephony Service - AMR | 15 |
| 1826 | Terminal interfaces | 15 |
| 1571 | Security enhancements [in progress] | 15 |
| 2243 | Intra Domain Connection of RAN Nodes to Multiple CN Nodes | 15 |
| 1637 | OSA enhancements [in progress] | 15? |
| 1536 | Location Services enhancements [in progress] | 15? |
| 9 | RAN improvements [in progress] | 15+16 |
| 2464 | MExE enhancements Rel-5 | 15+16 |
| 2569 | Messaging enhancements Rel-5 | 15+16 |
| 13000 | Service Change and UDI Fallback | 15+16 |
| 2556 | End to End QoS for PS Domain including IMS | 16 |

Foreseen Completion Date (2/2)

| UID | Title | FCD |
|------------|---|------------|
| 1216 | Improvements of Radio Interface [in progress] | 16+later |
| 1273 | Provisioning of IP-based multimedia services | 16+later |
| 1638 | CAMEL phase 4 | 16+later? |
| 2320 | GERAN improvements | GERAN8+9? |
| 2527 | Emergency calls without UICC/SIM in netw. with IMS | 18 |
| 1365 | Support of Push Services | 18? |
| 2499 | Support of Presence Capability | 18? |
| 1560 | UICC/(U)SIM enhancements and interworking [in progress] | ? |
| 1800 | (U)SIM toolkit enhancements [in progress] | ? |
| 2507 | Display of Service Provider name on UE | ? |
| 35009 | Trace Management | ? |
| 2062 | Subscription Management | NA? |
| 2520 | User Equipment Management | NA? |
| 1861 | Miscellaneous UE Conformance Testing Activities | NA |
| 1142 | Charging and OAM&P | NA |



Conclusion

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Conclusion (1/2)

- **Many features are either completed at TSG #15 or anticipated to be completed at TSG #16**
- **It is proposed to decide at TSG#15 which features belong to Rel-5 but to allow until TSG#16 -exceptionally more- for the actual completion of the Rel-5 features (not including charging and testing aspects)**

Conclusion (2/2)

- **The Features proposed to belong to Rel-5 are the ones that are anticipated to be completed by TSG#16**
- **When a splittable Feature can be partly completed by TSG #16, it is proposed to split it in two: only the part to be completed by TSG#16 is proposed to belong to Rel-5**
- **The two following pages provide the complete list of the Features belonging entirely or partly to Rel-5, and an incomplete list of those belonging to Rel-6, if the above proposal is accepted.**

Features entirely For Rel-5

| UID | Title | FCD |
|------------|---|------------|
| 1517 | Global Text Telephony | 12 |
| 4 | Evolutions of the transport in the CN [in progress] | 14 |
| 2 | Evolutions of the transport in the UTRAN [in progress] | 15 |
| 2476 | High Speed Downlink Packet Access | 15 |
| 34001 | Extended Transparent End-to-End PS Streaming Service | 15 |
| 1625 | Wideband Telephony Service - AMR | 15 |
| 1826 | Terminal interfaces | 15 |
| 1571 | Security enhancements [in progress] | 15 |
| 2243 | Intra Domain Connection of RAN Nodes to Multiple CN Nodes | 15 |
| 1637 | <u>OSA enhancements [in progress]</u> | 15? |
| 1536 | <u>Location Services enhancements [in progress]</u> | 15? |
| 9 | RAN improvements [in progress] | 15+16 |
| 2464 | MExE enhancements Rel-5 | 15+16 |
| 2569 | Messaging enhancements Rel-5 | 15+16 |
| 13000 | Service Change and UDI Fallback | 15+16 |
| 2556 | End to End QoS for PS Domain including IMS | 16 |

Other Features

| UID | Title | FCD |
|------------|--|------------------|
| 1216 | Improvements of Radio Interface [in progress] | 16+later |
| 1273 | Provisioning of IP-based multimedia services | 16+later |
| 1638 | <u>CAMEL phase 4</u> | 16+later? |
| 2320 | <u>GERAN improvements</u> | GERAN8+9? |
| 2527 | <i>Emergency calls without UICC/SIM in netw. with IMS</i> | 18 |
| 1365 | <i><u>Support of Push Services</u></i> | 18? |
| 2499 | <i><u>Support of Presence Capability</u></i> | 18? |
| 1560 | <u>UICC/(U)SIM enhancements and interworking [in progress]</u> | ? |
| 1800 | <u>(U)SIM toolkit enhancements [in progress]</u> | ? |
| 2507 | <u>Display of Service Provider name on UE</u> | ? |
| 35009 | <u>Trace Management</u> | ? |
| 2062 | <u>Subscription Management</u> | NA? |
| 2520 | <u>User Equipment Management</u> | NA? |
| 1861 | Miscellaneous UE Conformance Testing Activities | NA |
| 1142 | Charging and OAM&P | NA |

Bold: Partly for Rel-5

Italic: only for Rel-6

Underlined: To be clarified (also applicable to previous page)