Review of the Work Plan at Plenaries #15

A first version of this presentation (available in SP-020103) has been elaborated by MCC.

A second version contains the updates of TSG RAN, T and CN#15 (SP-020190).

This final version contains the TSG SA#15 decisions (in green).

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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/answer to/from plenary

Testing activities

UE Testing Rel-4 (1/2)

- *Note: R99 test activities not covered by this presentation*

- **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), approved at T#15*

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)**
  - *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 <u>seeking supporting companies</u>
(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 – 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)

Rel-5 Features

List of Features (1/2)

UID	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 1
1560	UICC/(U)SIM enhancements and interworking [in progress]

List of Features (2/2)

UID	Title
1800	(U)SIM toolkit enhancements [in progress]
1571	Security enhancements [in progress]
1861	Miscelleneous 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
31013	UE functionality Split
31018	Network Sharing

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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. View was endorsed by TSG-RAN #15.**

- **All change requests needed for the introduction of IP Transport option in the UTRAN approved at TSG-RAN #15.**

- **TR 25.933 approved as v5.0.0 at TSG-RAN #15.**

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 25.858 approved as v5.0.0 at TSG-RAN #15.
  - CRs to core specifications approved at TSG-RAN #15.

HSDPA (2/2)

- **Layer 2 and 3 aspects (R2)**
  - CRs to core specifications approved at TSG-RAN #15.

- **Iub/Iur protocol aspects (R3)**
  - CRs for all RAN3 specifications approved at TSG-RAN #15.

- **RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing (R4)**
  - Good progress, completion expected in June.
  - A number of CRs approved at TSG-RAN #15.

- **No work needed by other TSGs**

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Improvements of Radio Interface (1/4)

Items to be completed by June:

- *Enhancement on the DSCH hard split mode (R1): Completed. CRs approved at TSG-RAN #15.*

- *BS Classification for 1.28 Mcps TDD option (R4): Completion date moved to June (proposed for Rel-5).*

- *TDD BS classification (R4): Agreement on all topics, the work is almost completed. Completion date moved to June (proposed for Rel-5).*

Items in progress:

- *Multiple Input Multiple Output antennas (MIMO) (R1): Completion date moved to March 2003 (not for Rel-5)*

- *FDD BS classification (R4): Completion date moved to December (not for Rel-5)*

Improvements of Radio Interface (2/4)

Items finished:

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

No progress on:

–*Improvement of inter-frequency and inter-system measurement* *(R1)* **Completion date** **moved to December (not for Rel-5)**

–*Improved usage of downlink resource in FDD for CCTrCHs* **(R2)** **(not for Rel-5)**

– *Terminal power saving feature* **(R2) (generic item, no work done for Rel-5)**

Improvements of Radio Interface (3/4) Feasibility Studies

Note: these FSs are not allocated to any Release

- *Radio link performance enhancements* (R1): Work in progress. TR on Tx-diversity was provided to TSG-RAN #15 for information.

- *Deployment of UTRA in additional spectrum arrangements* (R4). Work in progress

- *Improvement of inter-frequency and inter-system measurements for 1.28 Mcps TDD* (R1) Small progress. Behind schedule. *Completion date moved to June.*

- *Fast Cell Selection (FCS) for HS-DSCH* (R1): No progress. Completion date *moved to December*.

- *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. A Rel-6 WI was approved.

– *FS on the re-introduction of the downlink SIR measurement* (R4). Finished at TSG-RAN #14. This Study Item did not trigger any WI.

FS proposed to be re-opened:

– *FS on UE antenna efficiency test method performance requirements* (R4). The FS was closed in TSG-RAN #14. A number of issues have arisen. A new SI was approved in TSG-RAN #15.

RAN improvements (1/2)

- ## **On schedule:**
  - *RL Timing Adjustment* (R3)
    - **Completed.** TR 25.878 approved as v5.0.0 and CRs approved by TSG-RAN #15.
  - *Separation of resource reservation and radio link activation* (R3)
    - **Completed.** TR 25.879 approved as v5.0.0 and CRs approved by TSG-RAN #15.
  - *Node B synchronisation for 1.28 Mcps TDD* (R1)
    - **Completed.** TR 25.868 approved as v5.0.0 and CRs approved by TSG-RAN #15.
  - *Iur Neighbouring cell reporting Efficiency Optimisation (R3)*
    - **Completed.** CRs approved by TSG-RAN #15.

RAN improvements (2/2)

- *Iur Common Transport Channel Efficiency Optimisation (R3)*
  - **Completed. TR 25.884 approved as v5.0.0 and CRs approved by TSG-RAN #15.**
- *Re-arrangement of Iub Transport Bearers* **(R3)**
  - **Completed. TR 25.880 approved as v5.0.0 and CRs approved by TSG-RAN #15.**

- **Ongoing:**
  - *SRNS Relocation Procedure Enhancement*
    - *Completion date moved to June.*
  - *RAB support enhancement for Rel-5* **(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. *Completion date moved to June.***

IMS (1/7) – general issues (1/2)

Or "IP-based Multimedia Services"

- **Stage 1 in 22.228 already in v.5.**
  - **Corrections on ISIM, access independence, identities, messaging and group management.**
- **Overall Stage 2 in 23.228 in v.5 since SA#13.**
  - **Lot of corrections and clarifications at SA#15, e.g. on QoS handling, IP v4/v6 interworking (still not solved), mapping PDP context(s)<->media component(s), etc.**
  - **Handling of Local services clarified at SA2 but no corresponding Stage 3 planed for Rel-5. Should SA2 delete the corresponding Stage 2?->Not part of Rel-5 (don't delete from 23.228 but mark it as "not applicable to Rel-5"). Do the same for Stage 1.**
  - **Use of pre-Rel-5 USIM: SA2 CR rejected at SA#15. Still for Rel-5?->Yes. Check again at TSG#16.**
- **Detailed Stage 2 and Stage 3: see next slides**

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IMS (2/7) – general issues (2/2)

Approved at CN#15 (formal change control, v.5.0.0):

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

➤ **TS 23.218 is "frozen", but TSs 24.228 and 24.229 are NOT "frozen" now.**

- **Stage 3 TS 26.236 "Transport Protocol for PS Conversational Multimedia applications" approved at SA#15 (formal change control) from SA4**
- **Performance characterisation of codecs : a TR 26.9xy on the issue still to be started (not critical for CN work)**

IMS (3/7) – Aspects not stable (1/4)

- *Access Security for IMS* : Stage 2: 33.203 ("Access Security for IP-based Services") approved at SA#15. Main remaining open point: 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 April. Stage 3 targeted for June 2002 approval

- *Security of SIP signalling between network nodes* : Stage 2 in 33.210 ("Network domain security; IP network layer security") approved at SA#15. Stage 3 work based on 33.210 not yet started in CN1 (targeted to June 2002)

IMS (4/7) - Aspects not stable (2/4)

- *User authentication*: stage 2 and IETF information still required to allow stage 3 work to complete - also some work on key transport required (June 2002)

- *Interface at Go (GGSN-PCF)*: ->Still in Rel-5. - see end to end QoS

- *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.

- *SIP Compression*: Stage 2 clarified at SA#15, decisions still required in CN1 (June 2002)

- *Charging*: CRs on Stage 1 Change to 22.115 to include Pre-paid, Stage 2 completed (TR 23.815 presented in v.2 at SA#15, also including pre-paid), Stage 3 in 32.225 (v.1. At SA#15) to be completed by June by SA5.

IMS (5/7) - Aspects not stable (3/4)

– *IMS to PS interworking*: CN3 has decided to move the finalisation date to March 2003 (No agreement in CN on whether it should stay in Rel-5). View from SA?->Not in Rel-5.

- Done for user plane (use of transcoder)
- Location of interworking function for the control plane still under discussion in SA2.
- Interworking between 3GPP mandated extensions (manyfolks, 100rel) and IETF SIP still under discussion at CN3
- IP v4/v6 interworking not solved at S2

– *IMS to CS interworking*: CN has decided to move the finalisation date to December 2002 (No agreement in CN on whether it should stay in Rel-5) View from SA?->split in Rel-5/Rel-6.

- 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

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IMS (6/7) – Aspects not stable (4/4)

- **To be confirmed at SA#15 if planned for Rel-5 or Rel-6:**
    - **Header removal in GERAN->Still Rel-5 (June). To be reconfirmed at GERAN (no WI for Header removal in UTRAN->true)**
    - **Header compression in UTRAN->already in Rel-4 (RoHC)**
    - **Header compression in GERAN-> for Iu, re-use RoHC. No intention to support it for Gb.**
    - **IMS local services: Stage 2 just defined (CR 149 to 23.228), Stage 3 not started ==> CN#15: move to Rel-6. Can SA#15 confirm?->answered elsewhere.**
    - **CAMEL in IMS (23.278): see CAMEL slides (June 2002? No consensus at CN#15) ->answered elsewhere.**

IMS (7/7) - Interfaces

- interfaces at Mw (CSCF – CSCF), Mg (MGCF – CSCF), Mi (CSCF – BGCF), Mj (BGCF – MGCF), Mk (BGCF – BGCF): changes in contents of IETF specifications have delayed editorial completion of SIP interfaces (June 2002)

- interface at Mr (CSCF – MRFC): complete

- interface at Mc (MGCF – IM-MGW): 29.232 based on existing H.248 specification - no work required

- interface at Mp (MRFC – MRFP): unclear. Work not started at CN4. Any specific work needed?-> use H.248, no specific work.

- interface at Cx (HSS – CSCF): dependent on IETF deliverables (June 2002)

- interface at Dx (CSCF – SLF): subset of Cx with no additional work

- interface at Sh (HSS – SIP AS and HSS – OSA SCS): WI just defined, regarded as subset of Cx (June 2002)

- interface at Si (HSS – IM-SSF): WI being defined (June 2002 - under discussion). See slide on Camel.

- interface at Go (GGSN – PCF): see slide on end-to-end QoS (June 2002)

- *Reminder: Sr (Application Server – MRFC) moved to Rel-6*

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Extended Streaming

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

Feature completed at SA#15:

- **Stage 1: TS 22.233 approved at SA#15, 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, approved at SA#15**

- **Stage 3: felt not strictly necessary, will not be produced;**

- **TR 26.937 RTP usage model started, not critical**

- ***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 for CS nor for PS emergency call enhancements for Rel-5.

Feature deleted of Rel-5.

Global Text Telephony

- **"Almost completed" at SA#12: CR still needed to support Cordless Terminal Mobility in Bearer Independent Circuit-Switched Core Network (June 2002)**

Reminder: VHE enhancements deleted at TSG#14

OSA (1/3)

- **Feature re-structured**

- **Stage 1 is completed – CRs on:**
  - Security requirements on User Profile Management
  - OSA support of a Generic Network Interface Function (CN question: for Rel-6 ?->not for rel-5)
  - Retrieval of IP Session Information (CN question: for Rel-6 ? ->not for rel-5)
  - Charging Requirements

  ->Stage 1 should be aligned

- **Note: OSA WID for "OSA Rel-6" or "OSA enhancements 2" approved at SA#15**

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OSA (2/3) – BBs on schedule

- **All the Items below are targeted June 2002**
  - *OSA APIs for Multi-media* : 70 % completed
  - *Retrieval of Terminal Capabilities*: completed except for IMS aspects, still to be addressed by SA2.
  - *Framework*: Stage 3: 65 % (ongoing dialogue between N5 and SA3).
  - *Generic User Interaction*: Stage 2: architectural mapping in CS/PS/IMS still needs to be documented, Stage 3: 65 %
  - *Charging*: work ready (Stage 3: 95%), CR in 06/2002
  - *Policy Management*: work ready (Stage 3: 95%), CR in 06/2002
  - *Presence & Availability Management*: work ready (Stage 3: 90%), subset for 3GPP needs still to be created and reviewed, CR in 06/2002
  - *Call Control mapping to ISC*: Stage 3: 70%
  - *WSDL APIs for HTTP/SOAP transport*: 90% (automatic mapping rules from UML created, WSDL APIs generated, CRs need to be produced)

OSA (3/3) – BBs delayed

Important delay on items listed here.

All items below to be deleted from Rel-5? To be re-scheduled for Rel-6?->Not for Rel-5. SA1 should decide on whether re-introducing them in Rel-6.

- *Journaling*: Stage 3: 0%

- *User Profile Management*: nothing done, assigned low priority by SA1 in Rel-5.

- *Information Services*: There is currently no network support in Rel5.

- *Retrieval of Network Capabilities*:
  - assigned low priority by SA1 in Rel-5.
  - Network Capabilities can only be partially addressed (access to information in HLR and HSS). This is also linked to GUP stage 2.
  - Stage 3: 10%, clarification from SA1 pending

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CAMEL phase 4 (1/5)

- **Stage 2 (23.078) and Stage 3 (29.078): Draft CRs to lead to v5.0.0 were sent to CN#15 for information. CN #15 recommendation is to approve these specifications in June as part of Rel-5.**

- **Enabling CRs to 23.008, 23.016, 23.018, 23.079, 23.083 & 29.002 were approved by CN #15.**

CAMEL phase 4 (2/5)

Support of CAMEL by the IMS:

- **Stage 2 for CAMEL control of IMS (23.278) 60% complete; it was sent to CN #14 for information.**

- **Stage 2 for information transfer between HSS & IM-SSF 15% complete.**

- **Views in CN are divided on whether this work can be completed by June. View from SA#15?->Keep it in Rel-5 so far. CN#16 to decide.**

CAMEL phase 4 (3/5)

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

80% or more complete, expected completion June:
- *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*

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CAMEL phase 4 (4/5)

Transfer of the IMEI (with software version) to the CSE: introduced by SA1 at SA#15 (approved). Currently 60% complete; delivery expected in June.

Charging notification to the CSE: S1 propose conditional retention of this item, subject to resolution of open issues in CN2 #23. Currently 60% complete; delivery expected in June if open issues are resolved in CN2 #23.

Enhancements of dialled services: removed by S1 at SA#15. So this BB will be removed from the WP for Release 5.

CAMEL phase 4 (5/5)

SA1 agreed the principle of defining "subsets" of CAMEL phase 4 (used for CAMEL phase negotiation):

- **CS call control (except charging notification);**
- **Charging notification to the CSE;**
- **Control of MT SMS;**
- **GPRS mobility event reporting;**
- **Any Time Interrogation in the PS domain.**

The impact of this on stage 2 & 3 specifications needs to be studied in CN2 & CN4. However, with the above subsets, the work can probably be completed by June

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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. TSG T#16 will decide whether to keep it to Rel-5, to move it to Rel-6 or to delete it, based on inputs from T2 at the next meeting.**

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 approved at SA #15: Completed**

- **TFO AMR WB : TS 28.062 Release 5 provided through CRs to Release 4 version: Completed**

WB-AMR (2/2)

- **CN aspects (all expected to be completed by June 2002):**

  – **Codec selection and GSM-UTRAN interworking almost completed**

  – **TFO and TrFO signalling almost completed**

  – **Radio Access Bearer optimisation completed**

  – **Radio Access Bearer renegotiation (impact at least on 23.018) completed**

  – **Billing, accounting and call detail record aspects CN completed**

  – **Legal interception almost completed, pending on SA3-LI work ->Not part of WB-AMR.**

- **Aspects to be deleted or re-scheduled:**

  – **Tones and announcements not required /low priority->Not for Rel-5**

  – **WB Conferencing and WB Voice Group calls not required ->Not for Rel-5**

  – **Adaptation of subscriber data in HLR/VLR not required ->Not for Rel-5**

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Terminal Interfaces Rel-5

- **Wide Area Data Synchronization**
  - **vObjects and Other Constructs for Use in Data Synchronization Proposal from T2 is to incorporate it in the work item Generic User Profile (Rel-6), so it is deleted as an independent WI. (confirmed at TSG T15).**

- **Terminal Local Model enhancements**
  completed

LCS in Rel-5 or "LCS enhancements 1"

- **Enhancements for Rel-5:**

*Stage 1 and 2 of all these enhancements are **completed** except for Le (to be checked) and User Privacy*

- *Location Services for GERAN in A/Gb Mode:* **completed** at GERAN
- *LCS for GERAN in Iu Mode:* **on-going** at GERAN
- *Specification for the Le Interface (GMLC - external LCS Client): check status->Rel-5: Stage 2: just a reference to LIF specification is in 3GPP specs. Stage 3: completed. Check again.*
- *Enhanced support for user privacy and subscriber data handling: Stage 1 approved. FS on Stage 2 in 23.871 **rejected** [point still open on March 13] in v.2.0.0 at SA#15 (see also Rel-6 slide). Stage 3 not started. -> could (part of) this item remain in Rel-5?->to be split into Rel-5/Rel-6. This split has to be clarified at SA#16.*
- *Deferred location request: might not belong to Rel-5. Check again at SA#16.*
- *Support of the LCS/Presence interactions:* **on-going** at SA2 and Stage 3 **should be finished by September** -> could this item remain in Rel-5?->No. Stages 1 and 2 need to be aligned.
- 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**

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

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UICC/(U)SIM enhancements and interworking

– **"C SIM API" –No progress at T3 (presented for information at TSG T#14). Moved to Rel-6 (decision from TSG T#15).**

– *Reminder: "UICC/USIM Transport Protocol" deleted at T#14.*

(U)SIM toolkit enhancements

– **"USAT Interpreter" – Completed. TS 31.114 approved at TSG T#15. Enhancements to be provided for Rel-6 (decision from TSG T#15).**

– *Reminder: "Enhancements to (U)SIM toolkit secure messaging" deleted at T#14.*

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.**
    - **Completion by CN of stage 3 unlikely by June 2002.-> June is feasible: Rel-5 is present assumption, check again at CN#16.**
  - **NDS/IP:**
    - **TS 33.210 to be presented to SA#15 for approval.**
    - **Completion by CN of stage 3 unlikely by June 2002. -> again, June feasible : Rel-5 is present assumption, check again at CN#16.**

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

- **80% complete**
- **TSG approval target remains 06/2002**

Subscription Management

- **Stage 1 in TS 32.140 submitted to SA#15 for Information, approval target delayed from 03/2002 to 06/2002 because SM is closely linked to GUP, which will not be included in Rel-5 (S2-020887). Stages 2 and 3 not started.**

- **Move to Rel-6?->Yes. Stage 1 to apply also to Rel6.**

User Equipment Management - *Feasibility Study*

- TR 32.802 v1.0.4 submitted to SA#15 - **for the 2nd time for Information**
- TSG approval target delayed from **03/2002** to **06/2002** because T2-SWG2 requesting further discussion and a joint session during SA5#27 in Cork (04/2002) in parallel with GUP ad-hoc meeting

Trace Management

- Submission to TSG for Information **delayed** from 03/2002 to 06/2002 because of ongoing communication with CN4/SA3: information to be collected in MGW, security concerns when transmitting sensitive information like IMSI/IMEI across the Mc Interface. TSG approval target remains **06/2002** for SA5 work**.**
- Work from other WGs (CN1, RAN2, RAN3**)** **not started yet.**
- **Move to Rel-6?->Yes, as the core spec cannot be stable before June.**

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Iu-Flex

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

Work completed (except for GERAN):

- **No Stage 1 defined for this feature**

- **Stage 2 completed in TS 23.236 at SA#13**

- **Stage 3 CN:**
  - **completed for CN1 at CN#14, some CRs from CN4 approved at CN#15**

- **Stage 3 RAN:**
  - **Completed: TR 25.875 approved as v5.0.0 and CRs approved at RAN #15.**

- **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)

Work Items related to Testing 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

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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 if no more important change at Stage 2.

- **Stage 2 in TS 23.207 "almost completed": still lot of CRs, open issues, and risk of additional requirements – Freezing / stability of stage 2 is essential to CN**

- **Stage 3 in TS 29.207 ("Policy control over Go interface") and TS 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)

Open issues which require resolution before the work can be completed

- **SA4 issue:**
  - **SDP to UMTS QoS mapping for both streaming and conversational services applications: completed?**

- **SA5 / SA2 issue:**
  - **Handling of charging ID: to be clarified**

- **SA1 / SA4 issue:**
  - **QoS parameter values for various media types: further guidance would be required in order to complete the work: ongoing**

- **TSG RAN wonder if there is no impact on their work. SA#15 should clarify whether there are or not RAN implications-> No impact (SDP to QoS mapping to be finished by S4 before June)->Rel-5 confirmed.**

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Messaging Enhancements: MMS

MMS (Multimedia Messaging Service) enhancements

elayed

- **MMS REL-5 stage 2 finalised**; two open items 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 (T#15: kept for Rel-5)
  - MM1 (interface MMS User Agent and MMS Server/Relay) stage 3 will be defined by WAP Forum
  - Support of "Recipient Party pays" charging model in MMS
    (very late requirement from SA1 cannot be achieved in Rel-5) (T#15: to be part of Rel-6->decision revised by SA) The subscription-based case might be already covered. -> T2 has to verify that with approved CR in SP-020193, the MMS charging requirements are now almost aligned with what is currently supported and if the remaining work (if any) can be done by June. Additional requirement approved in SP-020195 (Automatic Bearer selection for MMS). T2 has to try to define the corresponding Stage 3 by June.

- **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)

- **At SA: two CRs approved at SA#15**
  - CR from SA1 on service requirements (ISUP interworking)
  - CR from SA4 on 3G.324 codec
- **At CN, CRs agreed in CN1 and CN3 were presented at CN#15, but referred back to the WGs for inclusion of two remaining issues:**
  - interworking with ISUP networks (new requirement from SA1)
  - clarification of handling of pre-R99 mobiles

The two above CN issues will be handled by CN WGs for subsequent approval and completion at CN#16, June 2002

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

Presence

- **Stage 1 already completed, still in Rel-5 for SA1**
- **Stage 2 on-going: 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 by N1**

CN#15 expect stage 3 deliverables September 2002

=>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)->Not in Rel-5 (6 IETF dependencies still not complete).

- **Note also the "Presence Release 6" or "Presence enhancements" WID by SA1 approved at SA#15:**
  - **maintenance (other WG's will have PS as a R6 item)**
  - **enhancements (e.g. security, charging, attributes etc.)**

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UE functionality split

- **TR on Feasibility Study from S1 presented for Approval for Rel-5. Joint meeting S1/S3 to be held. No other work started.**

- **Completion date and Release to be clarified at SA#15. ->TR part of Rel-5, actual Feature for next Release (no WID on the actual Feature at present: to be elaborated by interested companies).**

Display of SP name on UE

- **Basic feature included in Rel99.**

- **There will finally be no "graphical display" addition, so this Rel-5 enhancement to "Display name on UE" can be deleted.**

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**

- **Stage 2 not yet started at SA2. One LS sent to R3.**

- **Stage 3 CN: no work started.->no clear estimation of the needed amount of CN work is visible now**

- **Stage 3 RAN: Relationship with newly approved RAN WI "Shared Network support in connected Mode" to be clarified.->SA1+SA2 should consider RAN WI and provide appropriate related work.**

- **->Check again at SA#16, after checking if SA1, SA2 and CN were able to fulfill the corresponding tasks.**

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Release 6 features

Or "non-Rel-5 features"

Multimedia Broadcast/Multicast Service (MBMS)

- **Stage 1 CRs on:**
  - **MBMS Broadcast and Multicast Sessions**
  - **Power consumption minimisation for MBMS**
- **Stage 2 progressing at S2, but still behind schedule**
- **Stage 3 not started at CN, RAN and T**
- **Workshop on MBMS planned May 6-7th in UK involving WGs of different TSGs**

Push Services

Now clarified that it does not apply to Rel-5

- **SA1's requirements provided for Rel-6**

- **Push 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)**

- **Other aspects not started**

Wireless LAN (WLAN)

- **Stage 1 in 22.934 presented for information to SA#15**

- **Updated WID for S1 activities on WLAN presented for approval**

- **WID for S2 activities on WLAN presented to SA#15, technical work not started**

- **Stage 3 not started (not yet defined)**

MExE Enhancements Rel-6

- ***WID MExE Rel-6 Improvements and Investigations***
  Approved at TSG-T#15.

- ***WID MExE Run-Time Independent Framework Feasibility Study***
  Approved at TSG-T#15.

LCS in Rel-6 or "LCS enhancements 2"

- **LCS activites identified for Rel-6: (WI rejected at SA#15)**
  - **Interactions with 3GPP Generic User Profile**
  - **Enhanced User Privacy**
    - **FS on Stage 2 (23.871) proposed for v.5.0.0 (Rel-5) but rejected at SA#15.**
    - **Stage 3: CN#15 understanding was that it should be finished at June, but this might be challenged by the non-approval of 23.871**
    - **Security aspects (SA3) and other aspects (UTRAN, GERAN): not started**
  - **GMLC - GMLC interface (SA2)**

"IMS Phase 2"

- **WID not created yet: will include the Rel-5 postponed items and the newly created ones.**

- **Moved from Rel-5:**
  - **Identification portability (was number portability) in IMS**
  - **IMS local services?**
  - **Specification of the interface at Sr**
  - **Potentially some other items to be decided at SA#15/16**

- **Newly created:**
  - **Radio optimisation impacts on PS domain architecture**
  - **IMS Messaging**
  - **IMS Group management**

- **The WID for IMS Phase 2 shall be elaborated. Who volunteers?->Lucent.**

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)
  - Stage 2: no work started at SA2. One LS received.
  - Security work identified at SA3

- *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: TR 22.950 on FS is deemed 75-80% complete (presented for information at SA #15)**

- ## *OSA Rel6*

  – **WI on stage 1 just approved at SA#15, to be renamed not to refer to any feature (e.g. "OSA enhancements 2").**

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 GPRS and IMS stage 3 specs – 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.

Support for Subscriber Certificates

- **Work started at SA3, clarification on scope with S1.**

Other

- **Potentially some other items re-scheduled at TSG #15.**

New WIs approved at RAN#15

RAN new Work Items

- WI "Shared Network support in connected Mode" (RP-020246)
  [R3; for TSG-RAN #17]

- WI "Improving Receiver Performance Requirements for the FDD UE" (RP-020124)
  [R4; for TSG-RAN #18]

- SI "UE Antenna efficiency test methods and requirements" (RP-020253)
  [R4, for TSG-RAN #18]

Other activities

- Centralised Radio Resource Management: No work reported to RAN. Not for Rel-5.

Summary of Completion Dates

Summary

- **The two following slides provide a summary of the Foreseen Completion Dates for the Features that (partially) belong to Rel-5 and for which there is or there was an ambiguity.**

- **Abbreviations used in next slides:**
  - **"UID" = Unique ID (Reference in the Work Plan)**
  - **"FCD" = Foreseen Completion Date (unit=TSG#)**
  - **"?" = ambiguity, to be clarified at TSG#15**
  - **"+" = and (the feature can be split and the resulting BBs can be completed independently)**

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Foreseen Completion Date (1/2)

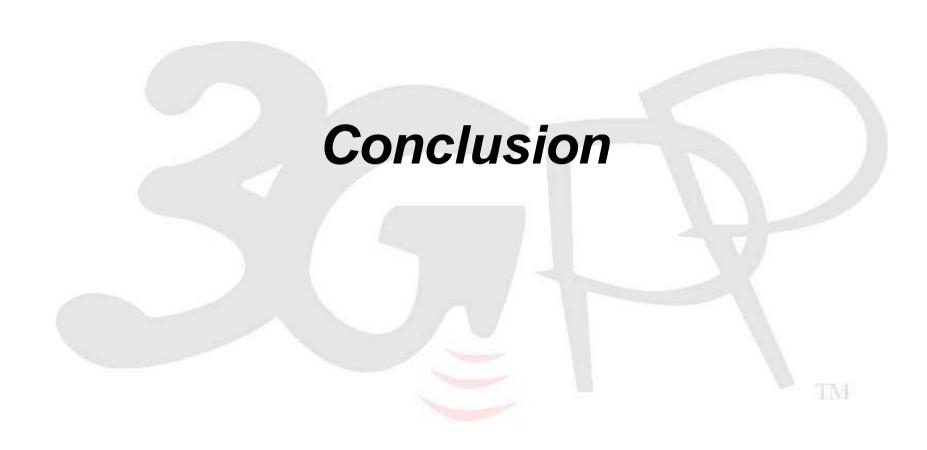| UID	Title	FCD
2	Evolutions of the transport in the UTRAN [in progress]	15
4	Evolutions of the transport in the CN [in progress]	14
2476	High Speed Downlink Packet Access	15
1216	Improvements of Radio Interface [in progress]	16+later
9	RAN improvements [in progress]	15+16
1273	Provisioning of IP-based 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]	16+later?
1638	CAMEL phase 4	16+later?
2464	MExE enhancements Rel-5	15+16?
1625	Wideband Telephony Service - AMR	16
1826	Terminal interfaces	15
1536	Location Services enhancements 1	15+16?
1560	UICC/(U)SIM enhancements and interworking [in progress]	18?

Foreseen Completion Date (2/2)

UID	Title	FCD
1800	(U)SIM toolkit enhancements [in progress]	15
1571	Security enhancements [in progress]	16?
1861	Miscelleneous UE Conformance Testing Activities	NA
1365	Support of Push Services	18?
1142	Charging and OAM&P	16
2062	Subscription Management	17?
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	Del
2520	User Equipment Management	16
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	16
13000	Service Change and UDI Fallback	16
35009	Trace Management	17?
31013	UE functionality Split	18?
31018	Network Sharing	16?

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Conclusion

Conclusion (1/2)

- **Many features are either completed at TSG #15 or anticipated to be completed at TSG #16 (as IMS "Phase 1")**

- **It is proposed to decide as much as possible 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 splitable 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 or later, if the above proposal is accepted.**

->Approved. Check again and refine the content of Rel-5 at TSG#16.

Proposed content of Rel-5 (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**
1826	**Terminal interfaces**	**15**
1800	**(U)SIM toolkit enhancements [in progress]**	**15**
2243	**Intra Domain Connection of RAN Nodes to Multiple CN Nodes**	**15**
9	**RAN improvements [in progress]**	**15+16**
2464	**MExE enhancements Rel-5**	**15+16?**
1536	**Location Services enhancements 1**	**15+16?**
2320	**GERAN improvements**	**GERAN8+9?**
1142	**Charging and OAM&P**	**16**
2520	**User Equipment Management - FS**	**16**
2556	**End to End QoS for PS Domain including IMS**	**16**

Red: Belongs to Rel-5   **Black: Does not belong to Rel-5**
Blue: Belongs partly to Rel-5   **Orange: unclear**
Underlined: To be clarified

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Proposed content of Rel-5 (2/2)

UID	Title	FCD
1625	Wideband Telephony Service - AMR	16
13000	Service Change and UDI Fallback	16
1571	Security enhancements [in progress]	16?
31018	Network Sharing	16?
2569	Messaging enhancements Rel-5	16
1216	Improvements of Radio Interface [in progress]	16+later
1273	Provisioning of IP-based multimedia services	16+later
1637	OSA enhancements [in progress]	16+later?
1638	CAMEL phase 4	16+later?
2062	Subscription Management	17?
35009	Trace Management	17?
2527	Emergency calls without UICC/SIM in netw. with IMS	18
1560	UICC/(U)SIM enhancements and interworking [in progress]	18?
1365	Support of Push Services	18?
2499	Support of Presence Capability	18?
31013	UE functionality Split	18?