*3GPP/PCG#7 Meeting*
*Tokyo, Japan*
*8 October 2001*

*3GPP/PCG#7(01)15*
2 October 2001
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**Source:**     **TSG SA Chairman**

**Title:**     **MCC Review of the Work Plan at Plenaries #13**

**Agenda item:**  **5.2**

**Document for:**

| | |
|---|---|
| Decision | |
| Discussion | |
| Information | **X** |

3GPP TSGs, Meeting #13
Beijing, China, 18-27 September 2001

*Tdoc SP-010552*

# *MCC Review of the Work Plan at Plenaries #13*

**This presentation includes the results of TSG RAN, T and CN #13**

# *List of Rel 5 Features (1/2)*

| Unique I | Title |
|---|---|
| 2 | Evolutions of the transport in the UTRAN |
| 4 | Evolutions of the transport in the CN |
| 2476 | High Speed Downlink Packet Access |
| 34001 | Extended Transparent End-to-End Packet Switched Streaming |
| 1216 | Improvements of Radio Interface |
| 9 | RAN improvements |
| 1273 | Provisioning of IP-based multimedia services |
| 1652 | Emergency call enhancements |
| 1517 | Global Text Telephony |
| 1367 | VHE enhancements |
| 1637 | OSA enhancements |
| 1638 | CAMEL phase 4 |
| 2464 | MExE enhancements Rel-5 |
| 1625 | Wideband Telephony Service  - AMR |
| 1826 | Terminal interfaces |

# *List of Rel 5 Features (2/2)*

| Unique I | Title |
|---|---|
| 1536 | Location Services enhancements |
| 1560 | UICC/(U)SIM enhancements and interworking |
| 1800 | (U)SIM toolkit enhancements |
| 1571 | Security enhancements |
| 1365 | Support of Push Services |
| 1142 | Charging and OAM&P |
| 2062 | Subscription Management |
| 2243 | Intra Domain Connection of RAN Nodes to Multiple CN Nodes |
| several | GERAN issues |
| 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 |
| 2544 | Enhancement of Broadcast and Introduction of Multicast |

# *Evolutions of the Transport in the UTRAN*

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

- Ad Hoc meeting #4 in August. Most of the study areas are complete.  TR 25.933 v1.4.0 presented to RAN #13 for information. WI is not complete.

- Agreements have been reached for the following topics:

  - Iu-cs user plane protocol stack: RTP/UDP/IP/Data Link Layer/Physical Layer with RTCP as optional.

  - Iu-ps user plane protocol stack: GTP-u/UDP/IP/Data Link Layer/Physical Layer.

  - Header compression based on RFC 2507 and its negotiation on RFC 2509.

- Contentious issues:

  - Signalling bearer protocol stack: Despite long discussions, no agreement could be reached.

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

- No work was done on this WI. WI is not complete.

# *Evolution of the transport in the CN*

**Feasibility Study on SCCP-User Adaptation:**

**Work on schedule:**

– **The TR 29.903 on FS on SS7 signalling transportation in the CN with SCCP-User Adaptation (SUA) is 50 % complete.**

– **To be presented for approval at CN#14.**

# *HSDPA (1/2)*

## *Or "High Speed Downlink Packet Access"*

- **General issues (R2)**
  - **On schedule.**
  - **Joint R2/R3 meeting in August.**
  - **Substantial progress. TR 25.855 approved at RAN #13:**
    - **Stage 2 description near-complete.**
    - **Transferred to TS 25.308 (approved in RAN #13) to cover normative text (and for reference purposes by ITU).**
- **Physical Layer (R1)**
  **Agreements on:**
  - **TTI length for FDD and 1.28 Mcps TDD**
  - **Signalling scheme**
  - **HARQ combining schemes**
  - **Control channel structure**

# *HSDPA (2/2)*

- **Layer 2 and 3 aspects (R2)**

  **Major decisions on HARQ protocol:**
  - **Asynchronous downlink**
  - **Synchronous uplink**

- **Iub/Iur protocol aspects (R3)**

  **Work has started:**
  - **TR 25.877 contains proposed study areas for Iub and Iur interfaces.**
  - **Issue of flow control over Iub discussed.**

- **RF Radio Transmission/ Reception, System Performance Requirements and Conformance Testing (R4)**
  - **Presentation has been given, but work has not started.**

# *Improvements of Radio Interface (1/3)*

- **Items on schedule:**

    - *BS Classification for 1.28 Mcps TDD option (R4)*

    - *FDD BS classification* **(R4)**

    - *Hybrid ARQ II/III* **(R2) – In progress as part of HSDPA WI**

    - *Multiple Input Multiple Output antennas (MIMO)* **(R1)**
      **TR outline created**

    - *Enhancement on the DSCH hard split mode (R1)*
      **TR to be presented for information to RAN #13**

# *Improvements of Radio Interface (2/3)*

- **Items in progress:**

  - *Improvements of inter-frequency and inter-system measurement* (R1)

  - *UMTS 1800* (R4) – In progress (release independent)

  - *UMTS 1900* (R4) – In progress (release independent)

    - On UMTS 1800/1900, TS 25.307 (Requirements on UEs supporting a Release Independent Frequency Band) approved at RAN #13

- **Items no progress on:**

  - *Improved usage of downlink resource in FDD for CCTrCHs* (R2)

  - *Terminal power saving feature* (R2) – No work identified

- **Out of schedule:**

  - *TDD BS classification* (R4) – finished in RAN#12 but discussion resumed

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# *Improvements of Radio Interface - FS (3/3)*

**Feasibility Studies on:**

- *Fast Cell Selection (FCS) for HS-DSCH* (R1) – Just started
- *Radio link performance enhancements* (R1)
  - Tx-diversity : In progress with MIMO discussion
  - Other topics : Enhancement of SSDT; RAN #13 agreed to include this as part of new WI *Beamforming*.
- *Improved Common DL Channel for Cell-FACH State* (R2) – RAN #13 decided results have to be ready by RAN #14, or FS to be deleted.
- *USTS* (R1) – In progress. System simulation results have been presented for various cases. RAN #13 was asked to derive Rel-5 WI for this feature, but RAN #13 did not approve (study incomplete).
- *UE antenna efficiency test method performance requirements* (R4) – In progress / On schedule
- *The re-introduction of the downlink SIR measurement (R4)* – In progress / On schedule
- *UTRA Wide Band Distribution Systems(R4)* – In progress but behind schedule
- *Mitigating the effect of CPICH interference at the UE*(R4)
  - In progress but behind schedule

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# *RAN improvements (1/2)*

- **On schedule:**
  - **RL Timing Adjustment (R3)**
    - TR 25.878 v0.2.0; open issue on timing adjustment mechanism.
  - **Separation of resource reservation and radio link activation (R3)**
    - A proposal was included in the TR on how delayed activation could work when reserved resources remain tied to a certain UE context. The other case is FFS.
    - TR 25.879 v0.2.0; several open issues are left.
  - **Improvement of Radio Resource Management across RNS and RNS/BSS (R3)**
    - TR 25.881 v0.2.0; there were several open issues. RAN #13 was asked to move this FS to WI, but this was not approved.
  - **Node B synchronisation for 1.28 Mcps TDD (R1)**
    - TR 25.868 for information at RAN#13.

# *RAN improvements (2/2)*

- **Ongoing:**
  - **Re-arrangement of Iub Transport Bearers (R3)**
    - **Several open issues have been identified.**

- **No progress:**
  - **RAB support enhancement (R2)**
    - **New work approved at RAN #13:**
      **RFC 3095 context relocation in SRNS relocation**

# *IP-based Multimedia Services (1/3)*

- **Stage 3 delayed until March 2002, Security aspects delayed until June 2002**

- **Stage 2 not fully stable for:**
  - **Charging (prepay and "post pay")**
  - **Emergency sessions**
  - **Signalling PDP context**
  - **=> *Additional SA2 drafting meeting in October***

- **Stage 3 not yet defined for:**
  - **The items above**
  - **SIP and SIP compression (IETF dependencies should be completed by March 2002)**
  - **Detailed stage 2 and Stage 3 progressing at N1: TS 24.228v120, 23.218v052 and TS 24.229v040 are planned for March 2002**
  - **Security (S3 and T3):see next slide**

# *IP-based Multimedia Services (2/3)*

- **Security aspects ("Access Security for IMS"):**
  - **Stage 2 targeted for March 2002 approval**
  - **Stage 3 targeted for June 2002 approval**
  - **Completion dependent upon progress in IETF on Extensible Authentication Protocol (EAP), Security Mode Set-up and Integrity Protection**
  - **Work on mechanism for integrity of SIP messages ongoing in SA3**
  - **Requirements draft developed by SA3 for input to IETF in October 2001**
  - **On T3 aspects: discussion has started, but little progress yet. Concept of ISIM being discussed.**
  - **The impact on compression in RAN has also to be investigated**

# *IP-based Multimedia Services (3/3)*

- **Other aspects not yet stable:**

  – **Header removal/compression in UTRAN and/or GERAN**

  – **Number portability in IMS (requirements to be clarified)**

  – **IMS local services**

  – **CAMEL and OSA in IMS and SIP Application Server (ISC interface)**

  – **interworking with external IP and CS networks**

  – **Specification of MRF**

  – **UE functionality split**

# *Global Text Telephony*

- **Completed** and closed at SA#12

# *VHE enhancements*

- "**dormant** mode": very little activity related to this WI

# *Emergency call enhancements*

**For IP & PS based calls**

    **Work ongoing**

–   Requirements covered by S1 in 22.228

–   Stage 3 completion by N1 depends on the related IMS progress now under discussion in S2

## *Emergency calls from UEs without UICC/SIM in Networks containing an IMS*

• No work done in SA2 (impacts on 23.221, 23.060 and 23.228 still to be specified)

• Stage 3 targeted for TSG#15

• To be confirmed if it is still applicable to Rel5

# *CAMEL phase 4 (1/3)*

- **Stage 2 and Stage 3: Draft TSs are under development.**

  - **First official Rel-5 versions of CAMEL specs will be inputs for CN plenary in March 2002 in form of one major CR to Rel-4 version.**

  - **IMS CAMEL needs adjustment in the target date taking the whole IMS work into account.**

# *CAMEL phase 4 (2/3)*

## Progress on CAMEL4 BBs:

**Almost complete:**

- **Interactions with Optimal Routing**

- **Inclusion of flexible tone injection:** CPH interaction is FFS

- **Provision of location information of called subscriber**

**On schedule for March 2002:**

- **CAMEL control over MT SMS**

- **Call Party Handling**

- **Notification of GPRS mobility management to CSE**

*Tdoc SP-010552*

# *CAMEL phase 4 (3/3)*

**Delayed**:

- **Charging notification to the CSE**

- **Enhancements of dialled services**

- **Inclusion of ODB data in the CSE-HLR interface**

- **Location information during an ongoing call**

- **GPRS Any Time Interrogation**: no progress yet

- **Mid call procedure for MO and MT calls**

**Work just started**:

- **CAMEL support by the IMS (see slide on IMS)**

"CAMEL support by the IMS" is added under WI "Provisioning of IP-based multimedia services" instead of BB "CAMEL applicability to media streams like VoIP" which is deleted

# *MExE Enhancements Rel-5*

- **MExE Improvements and Investigations on schedule for December 2001**
  - **main enhancements**
    - **investigate ECMA "Common Language Infrastructure" Support as Classmark 4**
    - **investigate support of terminal management**
    - **General enhancements and improvements**
    - **security enhancements**

- **MExE Security Analysis no progress due to lack of input, rescheduled for June 2002**

# *Wideband AMR*

- **AMR-WB Algorithm + test sequences: completed (c/o S4)**

- **AMR-WB Characterisation : Phase 1Ais completed, Phase 1B is on-going, Characterisation Phase 2 is under way (c/o S4)**

- **Tandem Free Operation: inclusion of AMR-WB is under way in S4**

- **AMR-WB Floating-Point version: new WID presented at SA#13**

- **AMR-WB work in progress:**

- **A list of Network / Security / Charging Aspects of the AMR-WB Feature to be progressed c/o related WGs; in particular:**

- **Signalling related to AMR-WB under discussion in CN; expected resolution at CN#13**

- **AMR-WB Service requirements c/o S1: no input received so far**

- **AMR-WB architectural aspects c/o S2 : no input received so far**

# *Extended Transparent End-to-End Packet Switched Mobile Streaming Applications*

- **WI approved at previous SA plenary (work just started).**

- **TS 26.233 and TS 26.234 in Release 5: work in progress to be concluded by March (one major CR to be provided on Rel-4 version of both specs)**

- **Discussion between S4 and S1 (all requirements potentially not provided in the first release)**

- **There were 2 entries for this feature in the Work Plan (under S1 and under S4 responsibilities): this has been re-arranged into one and the main responsibility is assigned to S4.**

- **Multimedia Codecs and Protocols for Conversational PS Services:**
  - **TS 26.235 in Release 5: under Change Control**
  - **Transport Protocols for PS conversational multimedia applications: to be completed at SA#14**
  - **Performance characterization of default codecs for PS conversational multimedia applications: to be started (completed at SA#14 or SA#15)**

# *Other codec issues*

- **Work in progress on Acoustic issues, e.g. Ambient Noise Rejection, Speech and Noise Bandwidth, …**

- **Audio visual terminal characteristics: Work in progress on Harmonization of requirements for terminal "acoustics" in GSM/GERAN and 3G (specifically TS 43.050 / TS 26.131 in Release 5); test methods in TS 51.010 / TS 26.132.**

# *Terminal Interfaces Rel-5*

– **Wide Area Data Synchronization**
  - **vObjects and Other Constructs for Use in Data Synchronization**
  **little progress, rescheduled for June 2002**


– **Terminal Local Model enhancements**
  **little progress, rescheduled for March 2002**
  - **aspects of UE Functionality Split to be accommodated**

# *LCS in Rel-5*

– **Re-submission to SA#13 of the WID on LCS for Rel-5 (was rejected at SA#12 because of not enough supporting companies and unclear description of some of the proposed items)**

– **LCS activities for Rel-5 are:**

  • **LCS in GERAN PS domain,**
  • **Event driven deferred LCS request,**
  • **Periodic location reports,**
  • **Standardization of the Le interface (a stand-alone WI was already approved on this topic in SP-010180),**
  • **Enhanced support for user privacy and subscriber data handling.**
  • **UE positioning:**
    – **UE positioning enhancements for 1.28 Mcps TDD – RAN#15**
    – **Open interface between the SMLC and the SRNC within the UTRAN to support A-GPS Positioning – finished at RAN#13 (TS 25.452 + CRs to existing specifications)**
    – **Open interface between the SMLC and the SRNC within the UTRAN to support UTRAN Rel-4 Positioning – RAN#14 but could be delayed to RAN#15**

– **Work on-going, Stages 1, 2 and 3 planned to be completed by March 2002**

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# *UICC/(U)SIM enhancements and interworking*

- – **work has started on "UICC/USIM Transport Protocol" but some risk of delay until March 2002.**

# *(U)SIM toolkit enhancements*

- – **"USAT Interpreter" now Rel-5 (was Rel-4). Two new specifications for approval at T#13 and a further one for approval is expected at T#14.**

- – **work on the test specification for "USAT Interpreter" not yet started.**

# *Presence*

**Potential delay:**

- **Requirements being defined by S1**

- **S2 just starting the related work: a WID is presented at SA#13 to clarify S2 involvement**

- **T3: work has not yet been identified.**

# *Display of Service Provider Name*

- **Graphical representation (Rel-5 part):**
  - **Requirements defined**
  - **T3 part not done**

- **All the other items are Rel-4 and have been completed**

# *Security Enhancements Rel-5 (1/2)*

- **Network domain security**
  - **MAP application layer security (Automatic Key Management):**
    - **material available, but no proposal for Zb interface at present. <span style="color:red">Contribution needed</span> to 33.200 to meet Rel-5 target date**
  - **Control plane protection IP-based CN (e.g., GTP, CAP, MAP/IP, provided by IPsec)**
    - **TS 33.210 expected completion <span style="color:red">June 2002</span>**

# *Security Enhancements Rel-5 (2/2)*

- **Protection for user plane data (GTP-U)**

  – **WI deleted due to lack of support**

- **FIGS**

  – **No contribution to SA WG3 and no progress. Consideration of deletion if no support.**

# *Push Services*

**Work delayed until March but clear willingness to still have it in Rel5**

- At SA2, only the question of the bearer to support Push Service has been addressed so far and is still not solved: "always on", NRCA or SMS-based. TR 23.974 is presented for approval at SA#13 : there is no agreement to introduce any changes on Bearer level in Rel-5 due to Push.

- It is hoped that the Stage 1 will allow S2 to solve this question (the Stage 1 is expected to be approved by December 2001).

- SA2 will come back to the Stage 2 of push services standardisation when Stage 1 has been approved, with potential re-consideration of the conclusion on the bearer issue.

# *Charging and OAM&P*

- Rel-4 completed and closed at SA#13

- Rel-5 25% complete at SA#13; none under CR

- TSG approval target remains 03/2002

# *Subscription Management*

- 50% complete at SA#13 (32.140)

- Co-ordination with VHE Enhancements & User Profile (SA1), HSS Interface (CN4). Awaiting feedback from SA1, CN4.

- Co-ordination with UE Management (SA5) on terminology relating to actors and roles

- TSG approval target remains 12/2001

# *FS on User Equipment Management*

- 10% complete at SA#13 (32.802)

- Draft TR 32.802 V0.0.2 submitted to TSG-T#13 (09/01)

- Joint SA5-T2 leadership of the WI progressing with a joint meeting in Cancun (11/01)

- TSG approval target remains 03/2002

# OSA enhancements

- CN#13 approved a set of CRs which align 3GPP OSA Rel4 as delivered to CN#12 with ETSI's SPAN version 1.0 and Parlay 3.0 (NOTE: CN5's OSA API is a sub-set of the Parlay/SPAN specifications)

- Rel-4 completed and closed at TSG#13

- Rel-5 25% complete at TSG#13

- TSG approval target (SA1/2, CN5 in co-operation with SA3/5,CN1,T2) remains 03/2002

- Parlay/SPAN/CN5 work schedule vs. target delivery date for 3GPP Rel5 (12/2001) may result in CN5's Rel5 OSA Stage 3 delivery in 03/2002

**Stage 3 OSA APIs by 3GPP CN5 (OSA)**

- BB WI (OSA Stage 3) submitted to CN#13 for approval (NP-010535)
- **Service Aspects -** aligned with the service provisioning architecture specified by SA1 and SA2 (enable the provision of 3rd Party services for UMTS)
- **Charging Aspects -** satisfy the charging requirements from SA1 and SA2 in co-operation with SA5 (22.127 v.5.0.0 available) and TR 23.815 (draft)
- **Security Aspects -** satisfy the security requirements from SA1 and SA2 in co-operation with SA3 (22.127 v.5.0.0, 22.121 v.5.1.0, TR 23.955 v.0.1.0 and in the security architecture)
- Mapping of Multi-party CC to SIP/ISC - co-operation with CN1 (23.218 v.0.6.0)

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# *Iu-Flex*

*Also known as "Intra Domain Connection of RAN Nodes to Multiple CN Nodes"*

**Work potentially delayed:**

- **The Stage 2 in TS 23.236 is presented to SA#13 for approval. An LS is sent to RAN3, RAN2, GERAN2, CN1 and CN4 to ask them to review the Stage 2 and provide the corresponding Stage 3.**

- **Stage 3 expected on:**
  - **RAN node selecting CN node in A / Gb / Iu interface mode (RAN has not yet started work, awaiting SA2 input)**
  - **New (resp. old) CN node selecting old CN (resp. new) node**
  - **SGSN selecting MSC**

# GERAN Work Items (1/2)

### All on-going (most to be completed by March /June 2002)

- Evolution of transport in UTRAN and GERAN (BB of UTRAN Feature)
- GERAN/UTRAN interface evolution of Iu-ps : impacted by TR on OVS, i.e. "optimised speech" (in progress)
- 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, RAB design, signalling, MS & BTS  Conformance tests
- Alignment of 3G functional split and Iu: GERAN user / control plane, Iu-rg, voice over PS and CS concept, NB speech, 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: support in GERAN, MS + BTS Conformance test for AMR Wideband
- Location service (UMTS) : LCS interoperability aspects to GERAN, LCS in A/Gb mode, Iu mode, MS + BTS Conformance test for LCS

# *GERAN Work Items (2/2)*

**Features or Building Blocks removed from the WP :**

- **Low chip rate TDD interworking with GERAN**

- **Gb over IP (GERAN improvements 1)**

- **Gb enhancements (Intra NACC Building block) (GERAN improvements 2)**

- **Delayed TBF  (GERAN Improvements 4, Gb enhancements 2)**

# *GERAN "New/updated" Work Items*

**All on-going (most to be completed by March /June 2002)**

- **Work Item for the "GERAN MS Conformance test for inter-system and intra-system Packet Data real time Handover"**

- **Update of GERAN LCS Work Item for A/Gb mode**

- **Update of GERAN LCS Work Item for Iu mode**

- **Building Block WI GERAN user/control plane**

# *End-to-End QoS*

**Work ongoing**

- **Stage 2 in TS 23.207 already in version 5 (v.5.1.0)**

- **Main issues on Stage 2: try to reduce the number of options**

- **Potential reduction on the scope of End-to-end QoS**

- **Stage 3 work started by CN3 (TS 29.207), foreseen to be completed by March 2002**

- **Work with GERAN on Optimised Speech Transport under discussion (joint meeting S2/GERAN beginning of August)**

# *Messaging Enhancements Rel-5*

- **MMS stage 2 enhancements behind schedule but still planned for December 2001**

  - **main enhancements**
    - **MM7 VAS server interface**
    - **enhanced interworking issues**
    - **extended User Agent capabilities for MMS**
    - **support of network based mailbox model in MMSE**
  - **Part of Stage 3 might again be defined by WAP Forum**

- **EMS enhancements on schedule for December 2001**

  - **main enhancements**
    - **line or vector based image format under discussion**
    - **monophonic and polyphonic sound formats**
    - **more complex elements (forms, menus, session ID etc)**
    - **hyperlink IE**
    - **EMS delivery request**

# *Enhancement of Broadcast and Introduction of Multicast*

- **Service renamed Multimedia Broadcast/Multicast Service (MBMS)**

- **Stage 1 (22.146 v.2.0.0): presented at this meeting for approval.**

- **Stage 2: S2 present a WID at SA#13 on S2's work for this feature. Discussions at SA2 to check whether it should be Rel-5 or Rel-6 (no firm decision).**

- **Security section is minimal but S3 expertise is required**

- **Charging section has basic requirements defined**

# *RAN new Work Items*

- **WI "Beamforming" (RP-010711)
[R1; for TSG-RAN #16]**

- **SI "Feasibility study considering deployment of UTRA in additional and diverse spectrum arrangement" (RP-010718)
[R4, for TSG-RAN #17]**

# *Summary of Completion Dates*

# *Summary*

- **The two following slides provide a summary of the Foreseen Completion Dates, sorted by date**
- **Abbreviations used in next slides:**
  - **"UID" = Unique ID (Reference in the Work Plan)**
  - **"FCD" = Foreseen Completion Date**
  - **"/" = or (no clear estimation)**
  - **"+" = 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**
  - **When the year is omitted: Dec = Dec 01, Mar = Mar 02, June = June 02**
  - **In Red: Features particularly relevant**

# *Foreseen Completion Dates (1/2)*

| UID | Title | FCD |
|---|---|---|
| 1517 | Global Text Telephony | Completed |
| 4 | Evolutions of the transport in the CN | Dec-01 |
| 1625 | Wideband Telephony Service - AMR | Dec-01 |
| 1800 | (U)SIM toolkit enhancements | Dec-01 |
| 2569 | Messaging enhancements Rel-5 | Dec-01 |
| 2464 | MExE enhancements Rel-5 | Dec+June |
| 2243 | Intra Domain Connection of RAN Nodes to Multiple CN Nodes | Mar-02 |
| 1536 | Location Services enhancements | Mar-02 |
| 1638 | CAMEL phase 4 | Mar-02 |
| 2476 | High Speed Downlink Packet Access | Mar-02 |
| 34001 | Extended Transparent End-to-End Packet Switched Streaming | Mar-02 |
| 1652 | Emergency call enhancements | Mar-02 |
| 1560 | UICC/(U)SIM enhancements and interworking | Mar-02 |
| 1365 | Support of Push Services | Mar-02 |
| 2556 | End to End QoS for PS Domain (including IMS) | Mar-02 |
| 2499 | Support of Presence Capability | Mar/June |
| 1273 | Provisioning of IP-based multimedia services | Mar*+later |
| 1571 | Security enhancements | Mar+June |

**\* Except the IMS Security, to be completed by June**

# *Foreseen Completion Dates (2/2)*

| UID | Title | FCD |
|---|---|---|
| several | GERAN issues | Mar+June |
| 2544 | Enhancement of Broadcast and Introduction of Multicast | No estima |
| 1367 | VHE enhancements | No info |
| 1637 | OSA enhancements | Mar-02 |
| 1142 | Charging and OAM&P | Mar-02 |
| 2062 | Subscription Management | Dec-01 |
| 2520 | User Equipment Management | Mar-02 |
| 2507 | Display of Service Provider name on UE | No Prog |
| 2527 | Emergency calls without UICC/SIM in netw. with IMS | No Prog |
| 2 | Evolutions of the transport in the UTRAN | several |
| 1216 | Improvements of Radio Interface | several |
| 9 | RAN improvements | several |

# *Conclusion*

# *Conclusion*

- **Given the data provided in the slide "Foreseen Completion Dates (1/2)", it is proposed to define the Completion Date of Release 5 as March 2002, with an exception for IMS Security ("stable" stage 3 to be approved in June).**

- **To achieve this, some discussions are encouraged to release the work load of some WGs by pushing out to Rel-6 some IMS aspects strictly speaking not required.**