



# *Review of the Work Plan at Plenaries #17*

This presentation is an update of NP-020332 / RP-020502 / TP-020225: it includes the results of TSG TAN/CN/T #17

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# Content

- Review of Rel 99, 4 and 5 testing activities
- Closing of open issues on Rel-5
- Review of on-going features (Rel-6)
- Conclusion

In **Black**: Name of the task

In **Red**: important statement

In **Green**: question to plenary



# *Testing activities*



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## ***UE testing R99***

- **15% of prose test cases updated to June 02 core specifications.**
- **98% of Package 1 and 80% of Package 2 are ready for verification**

# *UE Testing Rel-4 (1/2)*

- **Not started yet:**
  - *Testing of RAB support for RoHC (delayed to March 03)*
  - *Feasibility study on conformance testing of UE MExE capability (delayed)*
  - *Testing of IETF aspects of 3GPP RoHC (Sept 03)*

## ***UE Testing Rel-4 (2/2)***

- **Ongoing activities** (% complete, foreseen completion date):
  - ***LCR\_TDD, Testing Layer 2 and 3 protocol aspects (SIG)*** (40%, Dec 02 for prose and Dec 03 for TTCN)
  - ***Extensions to R99 Test cases (SIG, covers the completion of FDD prose and TTCN)*** (45%, 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)*** (40%, July 03 for prose and June 03 for TTCN)

# ***UE Testing Release Independent***

- **Testing UMTS 1800/1900:**
  - RF & SIG part **completed at last meeting**
  - TTCN expected for Mar 03
- **Optimisation of Test Time, RF Aspects (FDD and TDD)**
  - 70% completed, March 03

# UE Testing Rel-5

- Presented for **approval**:
  - *WID on Testing of support for IMS, 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 – 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)



## ***Closing of open issues on Rel-5***

**Note: this presentation contains only the open issues on Rel-5. The Features already agreed to be included in Rel-5 are listed in SP-020409 from SA#16.**

# High Speed Downlink Packet Access

*Reminder: the status at TSG#16 was “Completed at RAN#15 except the WG4 part (Radio Tx/ Rx, Performance Requirements and Conformance Testing)”.*

- **New progress since RAN#16:**
  - **FDD and 1.28 Mcps TDD:**
    - Complete: Node B and UE Fixed Reference Channel
    - In progress: UE Variable Reference Channel simulations. Aim is completion at RAN #18
  - **3.84 Mcps TDD: Simulation assumptions agreed and results presented; CR expected at next plenary**
- **Expected completion by RAN#18, the Work Item is kept in Release 5**

# ***UTRAN Sharing in Connected Mode***

Previously known as “Shared Network support in connected Mode”.

*Reminder: the status at TSG#16 was “Part of Rel5 if completed at RAN#17”.*

- Consensus reached within RAN WG3 on selecting the solution based on the SNA (Shared Network Area) concept. Necessary CRs for 25.401, 25.413 and 25.423 have been agreed
  - CN#17 APPROVED the CN4 CRs using the transport of SNA Access Information at BSSMAP.
    - Conclusion: 100% **completed for Release 5 at RAN#17. Part of Rel-5.**

# ***CAMEL phase 4***

Note: “CAMEL 4 Functional split into subsets” has been renamed to  
“Handling of partial implementation of CAMEL4”

## ***CAMEL control of IMS services***

*Reminder: the status at TSG#16 was “Stages 2 and 3 (including MAP CRs) targeted to September. As this item is relatively stand alone, it will still be part of Rel-5 if completed in September.”*

- Stage 2, general: New TS 23.278 approved at CN#17 (95% complete)
- Si interface (HSS – IM-SSF): Stage 2 in 23.278: **100% completed**, Stage 3: Completed (CRs against 29.002 approved at CN#17)
- Stage 3: New TS 29.278 approved at CN#17 (90% complete)
- So globally completed, part of Rel-5.

## ***Messaging Enhancements: MMS Rel-5***

- **MMS (Multimedia Messaging Service) enhancements**
  - **3GPP part completed** at TSG-T#16
    - **Open item:**
      - MM1 (interface MMS User Agent and MMS Server/Relay) stage 3, under development in OMA
      - storage of MMS info on the SIM – **completed at TSG-T/SA#17**
    - **Main enhancements MMS Rel-5**
      - Address resolution and Mobile Number Portability
      - MM7 (MMS Relay/Server – MMS VAS Applications)
      - Support of persistent storage in MMS
      - Enhanced interworking issues
      - Removal of SMS and USSD as MMS bearers

# ***GERAN Rel-5 (1/2)***

## **Completed Work Items for Release 5:**

- GERAN/UTRAN interface evolution
- GERAN Inter BSC NACC improvements over the Gb Interface
- Alignment of 3G functional split and lu
- Flow control supporting an MS with multiple data flows with different QoS over the Gb interface
- Enhanced Power Control
- 8PSK AMR HR
- GERAN enhancements for streaming services
- Intra Domain Connection of RAN Nodes to Multiple CN Nodes:  
Overall System Architecture (accept changes for Gb over IP)

# GERAN Rel-5 (2/2)

## GERAN Work Items for Release 5 (still on-going) :

- GERAN Improvement 3: Evolution of the transport for A interface
- GERAN support for IP multimedia
- Multiple TBF in A/Gb mode

## **Charging and OAM&P – Rel 5**

**100% complete at SA#17**

Rel-5 Charging was just finalized with huge effort and good spirit of compromise in **08/02**

- **32.225 IMS Charging:**
  - Draft TS v200 submitted for SA#17 Approval
- **32.2xy Charging:**
  - CRs submitted for SA#17 Approval
- **32.6/3/1xy-series Network Infrastructure Management:**
  - 18 New draft TSs submitted for SA#17 Approval
  - Some 50 CRs to existing TSs submitted for SA#17 Approval
- **32.403 Performance measurements**
  - CRs submitted for SA#17 Approval

**NOTE: Charging and OAM will be split in Rel-6 in two separate Features**





# ***Review of on-going features***

**Planned to belong to Rel-6**

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# List of Rel-6 Features (1/2)

<b>UID</b>	<b>Feature</b>
2	<b>Evolutions of the transport in the UTRAN</b>
4	<b>Evolutions of the transport in the CN</b>
1216	<b>Improvements of Radio Interface</b>
9	<b>RAN improvements</b>
1826	<b>MMS enhancements</b>
32023	<b>Location Services enhancements 2</b>
1800	<b>(U)SIM toolkit enhancements</b>
1571	<b>Security enhancements</b>
32021	<b>IMS Phase 2</b>
1365	<b>Support of Push Services</b>
42005	<b>Rel-6 MExE enhancements</b>
1142	<b>Charging and OAM&amp;P</b>
2062	<b>Subscription Management</b>
2499	<b>Support of Presence Capability</b>



## List of Rel-6 Features (2/2)

<b>UID</b>	<b>Feature</b>
2527+1652	Emergency calls enhancements
2544	Multimedia Broadcast and Multicast Service
31006	Speech Recognition and Speech Enabled Services
31008	Generic User Profile
31010	Digital Rights Management
31012	FS on WLAN-UMTS Interworking
31015	Priority Service
31018	Network Sharing
31013	UE Functionality Split
32016	QoS Improvements
33002	Support for subscriber certificates
15010	Rel-6 OSA enhancements
several	GERAN Enhancements for Rel-6

# ***Evolutions of the transport in UTRAN and in CN***

- “Basket features” acting as place holders for the time being.
- To be deleted at plenaries #18 if no transport evolution identified at that time.

## ***Rel-6 Improvements of Radio Interface (1/2)***

- Improvement of inter-frequency and inter-system measurement **(R1)**. No progress since several plenaries. New completion date: March 2003 (old date was Dec. 2002).
- Multiple Input Multiple Output antennas **(MIMO) (R1)**: On progress. Joint discussion with 3GPP2 on channel modelling is going on regularly. New completion date: June 2003 (old date was Mar. 2003).
- Improving Receiver Performance Requirements for the FDD UE **(R4)**. On progress. Completion by December 2002.
- FDD BS classification **(R4)**: Most of the Medium Area BS requirements have been agreed, Local Area BS work still pending. Completion by December 2002.
- Improved usage of downlink resource in FDD for CCTrCHs **(R2)**: No progress. Removed.
- Terminal power saving feature **(R2)**: No progress since several plenaries. To be kept as place holder, even no corresponding work!

## ***Rel-6 Improvements of Radio Interface (2/2)***

### **Feasibility Studies:**

- Radio link performance enhancements **(R1)**: Work in progress. **Completion Date: Moved to Dec. 2002.**
- Improvement of inter-frequency and inter-system measurements for 1.28 Mcps TDD **(R1)** Small progress. Behind schedule. TR is to be presented at RAN #17 for information. Completion date: **Mar. 2003.**
- Fast Cell Selection (FCS) for HS-DSCH **(R1)**: Small progress. Completion date: Moved to **Mar 2003.**
- Deployment of UTRA in additional spectrum arrangements **(R4)**. Work in progress, completion date **December 2002**. Clarification from TSG RAN required on the scope of the study
- UTRA Wide Band Distribution Systems **(R4)** No progress since RAN#16. Completion date **March 2003.**
- FS on UE antenna efficiency test method performance requirements **(R4)**. RAN WG4 intention was to re-use the methods developed in COST or CTIA groups, but none has yet finished them for 3G terminals. RAN WG4 suggest to close the FS and monitor the progress in the two bodies. Completed, closed at **TSG RAN#17.**

## ***RAN improvements – Rel-6***

- **Beamforming Enhancements (R1)** Small progress  
Completion date moved to **March 2003**.
- **RAB support enhancement (R2):** Basket Work Item, Rel-5 work finished. Rel-6 work not yet identified.
- **RRM optimization for Iur and Iub (R3):** Basket Work Item, Rel-5 work finished, nothing identified for Rel-6.
- **Improvement of RRM across RNS and RNS/BSS (R3):** Work ongoing, Completion date **December 2002**.
- **OFDM analysis for UTRAN evolution (Study Item, R1):** R1 has started the discussion. The update of SI description is to be submitted at RAN #17 for approval. Completion date: **June 2003**.
- **SRNS Relocation Procedure Enhancement (Study Item, R3)**  
RAN WG3 did not reach consensus whether the proposed enhancement provides an incremental gain or not. RAN WG3 proposes to close the SI. Completed **September 2002**. **No agreement to start the corresponding WI.**



# Emergency call enhancements

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

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

**No progress since several TSGs.**

- Requirements covered by SA1 in 22.228
- SA2 work completion target is **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**.

*Note on emergency calls in Rel-4 and 5:* there was a remaining open point on conflicts between service and emergency numbers and GGSN in HPLMN for roaming UEs. A solution was proposed last month at SA2: from Rel-4 onwards, local emergency numbers can be passed on to a roaming UE via MM/GMM messages from CN, so CS emergency calls can be made more accurately.

This still means no specific IMS/PS emergency calls for Rel-5, but further/other progress on this in Rel-6 is dependant on SA2 input.



# ***MMS (Multimedia Messaging Service) Enhancements***

- **Enhancements of the following and other areas are under consideration:**
  - MM1, MM4 reference points enhancements
  - interworking and transcoding enhancements
  - terminal capability negotiation enhancements
  - alternative User Agent capabilities
  - detailed description of User Profile mechanisms
  - security and privacy enhancements
  - Digital Rights Management
  - enhanced charging methods
  - enhancements of the interworking with VAS applications
  - enhancements for streaming
- **WID approved at TSG-T#17**

## ***LCS enhancements 2***

**Rel-6 LCS activities **on-going** (WIDs for SA1 and SA2 tasks approved at SA#16). It will include:**

- Enhancements on:
  - Le interface
  - Network support for user privacy and subscriber data handling
  - GMLC-GMLC interface
- New items:
  - Relationship between Location Services and Presence service
  - New events for triggered location reports
- New addition at SA#18: Study on applicability of GALILEO for LCS, just started, to be completed by SA#20 (Jun 03)
- **UE positioning:**
  - Study Item on Enhancements to OTDOA Positioning using advanced blanking methods approved at RAN #16; completion date **March 2003**
  - Open SMLC-SRNC Interface within the UTRAN to support Rel4 positioning" : **Work hasn't started.** completion date **March 2003**

# ***UICC/(U)SIM enhancements and interworking for Rel-6***

## **(U)SIM toolkit enhancements**

### **– C SIM API**

- ‘C’-language binding for (U)SIM API for Release 6. Allows (U)SIM toolkit application developers to create applications using the C programming language ISO/IEC 9899. Presented for **approval** at T#17.

- Test specification for ‘C’-language binding for (U)SIM API. New specification presented for information at T#17.

## **(U)ICC enhancements**

- Enhancement of UICC-Terminal interface communication speed: for **approval** at T#17.

# *Security Enhancements Rel-6*

- **Network domain security**
  - **NDS/IP:**
    - WID for NDS Authentication Framework (NDS/AF) approved TSG#16
    - Feasibility study presented to SA#17 for **information** (33.910 version 1.0.0)
  - **A5/3 – GSA3 Algorithm:**
    - A5/3 work completed and specifications/reports agreed by SA WG3 for presentation to SA#17 for **Approval** (55.216, 55.217, 55.218, 55.919 versions 1.0.0)

## ***IMS Phase 2 (1/2)***

- **Clarified in new WID proposed by SA2. It consists in postponed BBs from Rel-5 and new BBs. Technical work started at SA1 and SA2 even for the new BBs.**
- **It consists in (1/2) :**
  - **Identity portability in IMS**
  - **IMS local services**
  - **IMS to IP and PS interworking**
  - **IMS to CS interworking**
  - **Service continuity IMS to UMTS/GSM CS**
  - **IMS Group management**
  - **IMS Conferencing**

## ***IMS Phase 2 (2/2)***

- **It consists in (2/2):**
  - **PSS alignment to IMS**
  - **IMS Messaging**
  - **Additional SIP Capabilities Support**
  - **Emergency Calls in IMS**
  - **Commonality and Interoperability between IMSs**
  - **interface at Mc (MGCF – IM-MGW): 29.232 based on existing H.248 specification.**
  - **Performance evaluation of multimedia codecs for conversational services**

# *Push Services*

## Work **ongoing**

- TS 22.174 (Stage 1) presented to SA #17 for approval
  - There have been no substantive changes.
  - Refinement of the basic approach for Push.
  - The last revision eliminated overlap between two subsections, retaining the unique requirements in both sections.
- No progress on other aspects (e.g. on Stage 2).

# ***MExE Enhancements Rel-6***

- ***WID MExE Rel-6 Improvements and Investigations***  
*Approved at TSG-T#15.*
  - **Work ongoing**
- ***WID MExE Run-Time Independent Framework Feasibility Study***  
*Approved at TSG-T#15.*
  - **Work ongoing. TR presented to TSG-T#17 for information.**



## OAM – Rel 6

- Rel-6 **WID** for OAM Feature submitted to SA#17 for **Approval** together with 4 BBs:
  - OAM-AR (Principles, high level Requirements and Architecture)
  - OAM-UEM (User Equipment Management)
  - OAM-NIM (Network Infrastructure Management)
  - OAM-PM WID (Performance Management)

### NOTES:

- Charging and OAM are two separate Features in Rel-6.
- “Trace Management” and “UEM” are in Rel-6 not anymore Features (like they were in Rel-5) but a Building Blocks of Rel-6 OAM. As a consequence, progress is now reported under OAM.
- Trace BB was approved at SA#16.
- Established liaison with the Open Mobile Alliance for UEM work.

# Trace Management

**Note:** From TSG#18 onwards, progress on Trace will be reported under “OAM improvement”, as stated in previous slide.

## Work **ongoing**

- 32.421 Trace Concepts and Requirements (85% complete)
  - was submitted to SA#16 (**06/02**) for Information
  - planned sending to SA#18 (**12/02**) for Approval
- Trace Impacts on Network Signalling Interfaces (25% complete)
  - monitors progress of requests made to other 3GPP WGs
- 32.422 Trace Control and Configuration Management enhancement (45% complete)
- 32.423 Trace Data Definition and Management (35% complete)
- 52.008 GSM Subscriber and Equipment Trace (55% complete)

## ***Charging Management – Rel 6***

- **Rel-6 Feature-level WID for Charging Management will be submitted to SA#18 for Approval (12/02)**

**NOTE: Charging (at SA#18) and OAM (SP-020445) are split in Rel-6 in two separate Features**

# *Subscription Management*

- **WID** submitted to SA#17 for **Approval**
- Moved from Rel-5 to Rel-6
- SM is closely linked to GUP which was also moved to Rel-6
- Stage 1 TS 32.140 submitted to SA#15 for Information is 95% complete
- Stages 2 and 3 are 10% complete

# Presence

## Work ongoing.

- No substantial inputs in SA1.
  - Some changes being proposed based on SA3 security review of TS 22.141
  - Changes proposed to close open items.
- Stage 2: TR changed into TS 23.141, and v.1.0.0 presented for information **(and for approval)** at SA#17: **was approved**
- Stage 3: initial work underway in CN1. Other aspects (security, charging, testing) not started technically.
- WID for security aspects planned

## ***Multimedia Broadcast/Multicast Service (MBMS)***

- **No substantial input on Stage 1. Changes Proposed on Multicast service discovery, MBMS Availability, Simultaneous services, Charging and QoS**
- **Stage 2: Feasibility Study completed: TR 23.846 presented for approval at SA#17. SA2 now propose to start working on “real” Stage 2.**
- **Stage 2 to be performed by SA2 (Global Stage 2) and by RAN2 (Stage 2 in the AN)**
- **MBMS Stage 2 in RAN: Work started, a number of architectural proposals received, but no agreement reached. SA2 involvement is required.**
- **Stage 3:**
  - **WID for CN Part approved at CN#16.**
  - **RAN started looking at requirements (LS to workshop); work **not started.****

## *Speech recognition and Speech enabled Services*

### **Work ongoing**

- **TR 22.977 on SES presented for approval at SA #17**
  - **No outstanding issues**
  - **Terminology improved**
  - **Multimodal and multi-device detailed study has been added.**
  - **Role of IMS versus PS network has been clarified.**
- **Stages 2 and 3: Work not started**



# Generic User Profile

## Work ongoing

- GUP Stage 1 22.240 presented for information at SA#17
  - Main focus of work on GUP component synchronisation and consistency
  - No outstanding issues
- Stages 2 and 3: on-going, no technical material to be presented now. Current discussions between SA1, SA2 and T2 on the handling of situation-dependent profiles.
- On Stage 2, TS 23.240 completion date proposal at SA2 (not approved at SA#17) is to move to SA#19 (see revised WID). Impact on Stage 3 to be clarified.



# *Digital Rights Management*

- **No substantial changes on Stage 1 22.242.  
One CR to clean up TS**
- **Stages 2 and 3: work not started.**

# ***FS on WLAN/UMTS interworking***

## **Work ongoing**

- **Stage 1 TR 22.934 proposed for approval at SA#17. Outstanding issues:**
  - Network access selection,
  - use cases for access to 3GPP services from WLAN
- **Stage 2: proposal to modify the WID to make it a “real” feature (to start real Stage 2 for scenario 2 (&3)) (and no more a FS: FS will continue as a study of the other scenarios). TR 23.934 on FS and TS 23.234 on WLAN Subsystem, System Description presented for info at SA#17.**
- **Stage 3: work not started.**

# *Priority Service*

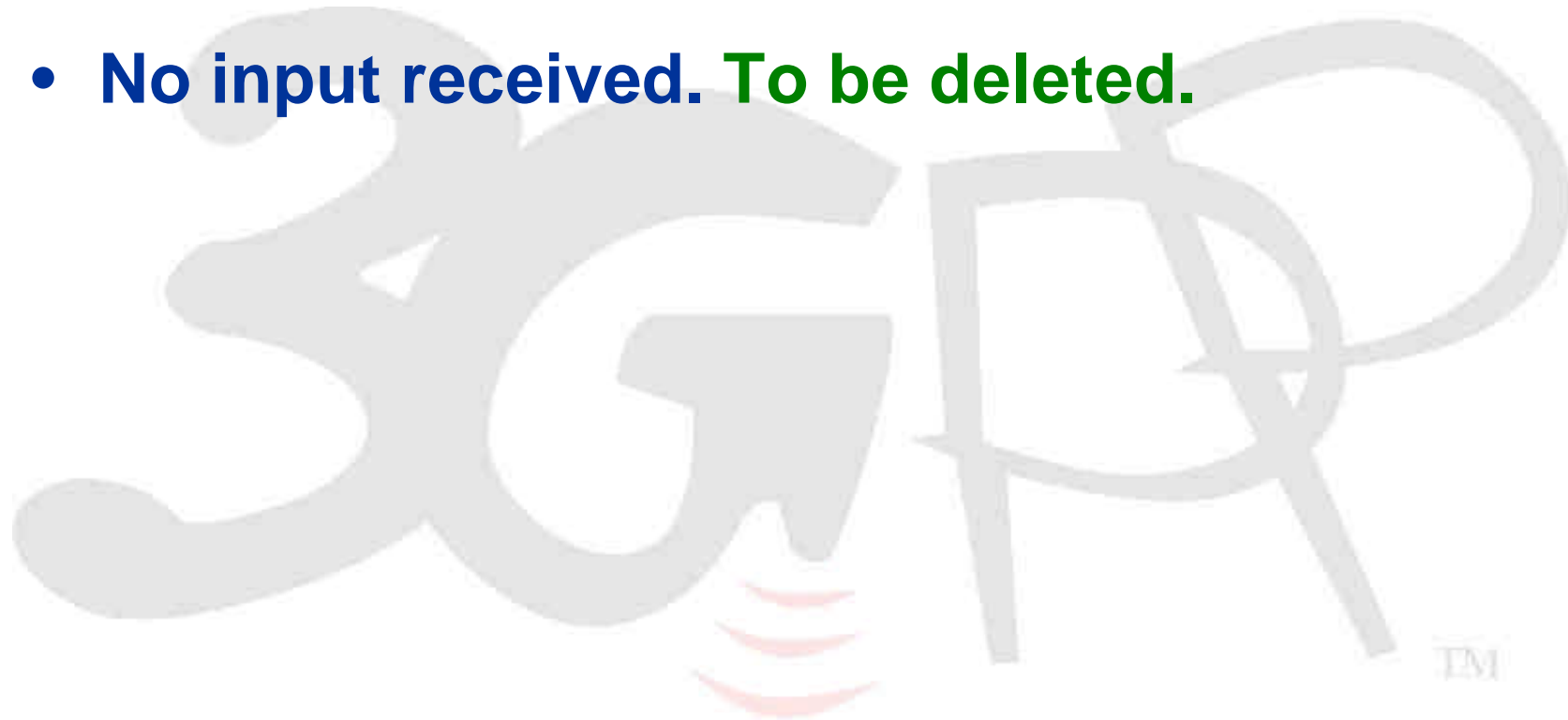
- **Stage 1 TR 22.950 approved at SA #16**
  - Work in ITU-T SG 11 on amendments to ISUP 2000 and BICC CS2 protocols to support International Preference Scheme (IEPS) is being tracked.
  - Proposal to add a new High Level Requirement to support Priority Queuing of Trunk resources to increase the probability of call completion.
  - Open issue in TR 22.950 for the ability to distinguish Priority Users and eMLPP Users
- **No other work started**

# Network Sharing

- **Stage 1 TR 22.951 Presented for information at SA #17**
  - Treatment of international roaming subscriber in sharing network
  - Conclusion to be drafted
  - Requirements on name display when manual network selection is used is for further study
  - UE capabilities and requirements will be for further study
  - Charging and security requirements to be completed
- **No other activity started**

# ***UE Functionality Split***

- **No input received. To be deleted.**



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# ***Streaming***

- **Modifications to Stage 1 in TS 22.233**
  - Requirement for efficient use of transport resources for PS Streaming
  - PSS server file format

# *QoS Improvements*

- This Feature consists in a Feasibility Study on Dynamic Policy Control Enhancements for End-to-End Quality of Service (QoS)
- No input on Stage 1
- Stage 2: WID revised to clarify that a FS is initially proposed, in TR 23.917 (intended completion date in SA#19). Technical work just starting at SA2.
- Stage 3: work not started.

## ***OSA Improvements (1/2)***

- **Reintroduction in Rel-6 stage 1 (TS 22.127) of functions previously removed from Rel-5:**
  - functions for retrieval of Visited Network Capabilities (Local services)
  - Information Services functions
  - User Data Management
  - support of 3GPP Presence Service
  - (NB: Reintroduction of journalling requirements was not yet agreed by SA1.)
- **New OSA functions to be introduced in Rel6:**
  - Generic Network Interface Function
  - Multimedia Messaging function
  - extensions to Policy Management
  - support of LCS Enhanced User Privacy



## ***OSA Improvements (2/2)***

- **Other functions to be clarified if belonging to Rel-6:**
  - **Support for MMS Relay/Server to VASP Connectivity**
  - **Support for the Push-Service**
  - **Enhanced User Notification**
  - **Support for GUP to enable applications access to the Users Profile**

**CN5 WID approved at CN#17**

# *Support for Subscriber Certificates*

## **Progressing in the SA3 (with SA1 & SA2 involvement).**

- **Tasks identified on:**

- Requirements for POP and identification of useage cases
- Compatibility with WAP
- Relationship and compatibility with m-commerce work and certificate work in other ETSI groups, IETF etc.
- Involvement of SA WG1, particularly on roaming issues
- Vistited Network issued certificates, resolution of disputes and user cases
- access independence issues (advantages/drawbacks of different solutions - global PKI considerations)
- Lawful interception implications
- Business relationships, Trust relationships, resolution of disputes (Trust issues).

# **GERAN Rel-6 (1/3)**

## **GERAN Work Items for Release 6 (all started) :**

- **Enhanced A/Gb feasibility study**
- **Seamless support of streaming services in A/Gb mode**
- **Flexible Layer One for GERAN**
- **Addition of frequency bands to GSM**
- **Uplink TDOA feasibility study**
- **Support of the Multimedia Broadcast Multicast Service (MBMS) in GERAN**

## ***GERAN Rel-6 (2/3) Testing activities***

***(all just started, or even not started, yet)***

- MS conformance test for Intra BSC NACC
- GERAN MS / BTS Conformance tests for support of IP multimedia
- GERAN MS / BTS Conformance tests for GERAN interface evolution
- Multiple TBF in A/Gb mode – MS tests
- GERAN MS Conformance tests for the Flexible Layer One
- Addition of frequency bands to GSM – Changes for conformance tests
- GERAN MS / BTS Conformance tests Enhanced Power Control
- GERAN MS /BTS Conformance tests for 8-PSK Half Rate
- GERAN MS / BTS Conformance tests for Wide Band AMR
- GERAN MS / BTS Conformance test for LCS



# ***GERAN Rel-6 (3/3):***

## ***New/revi*** ***sed GERAN WID***

- **GP-022561 Seamless support of streaming services for A/Gb mode**
- **GP-022562 Seamless support of streaming services for A/Gb mode / Performance study of cell change mechanisms**
- **GP-022563 Seamless support of streaming services for A/Gb mode / Reduction of service interruption times and packet loss during mobility procedures**
- **GP-022564 Seamless support of streaming services for A/Gb mode / Identification of requirements for streaming**
- **GP-022566 Support of the Multimedia Broadcast Multicast Service (MBMS) in GERAN**
- **GP-022565 Updated Feasibility Study on A/Gb Enhancements (GP-021233) to focus on conversational services via Gb**

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## ***New Feasibility Studies approved at RAN #17 (1/2)***

- **Early UE handling in UTRAN (R2):** Two techniques will be studied:
  - Hook +extension container
  - IMEI-SV

Completion date December 2002, RAN WG2 will revise the proposed Study Item Description (RP-020666).

- **Uplink Enhancements for Dedicated Transport Channels (R1) (RP-020658).**  
The following enhancements will be studied:
  - Adaptive modulation and coding schemes
  - Hybrid ARQ protocols
  - Node B controlled scheduling
  - Physical layer or higher layer signalling mechanisms to support the enhancements
  - Fast DCH setup
  - Shorter frame size and improved QoS

Proposed completion in March 2003

## ***New Feasibility Studies approved at RAN #17 (2/2)***

- **Distributed RAN Architecture (R1) (RP-020670):** The UTRAN architecture evolution considering a new functional split between the nodes will be studied. It should be possible to introduce this evolved architecture together with the existing Release'99 based network elements and with no UE impact. Completion date: June 2002.
- **Analysis of higher chip rates for UTRAN TDD evolution (R1) (RP-020673)** The study will consider higher chip rates, such as 2x the standard chip rate, 7.68Mcps. The study should consider performance aspects, aspects linked to the evolution of UMTS, impact on signalling in UTRAN, aspects of capacity/cost/complexity/ coverage and aspects of co-existence with the existing UTRAN releases. Completion date: June 2002.





# *Conclusion*

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# Conclusion

- **The two main open items from TSG #16 on Rel-5 are now solved, both of them are completed and belong to Rel5:**
  - CAMEL control of IMS services
  - UTRAN Sharing in Connected Mode
- **GERAN content of Rel-5 now clarified**
- **Work ongoing “normally” on Rel-6 and potentially after but too early to**
  - propose a freezing date for Rel6
  - distinguish the features to belong to Rel-6 or after.