

3GPP TSG CN/T/RAN/SA #21  
Frankfurt, Germany, 16-25 September 2003

Tdoc TP-030160



# *Review of the Work Plan at Plenaries #21*

**This version does not include updates from TSG #21**

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# Content

- Review of testing activities
- Review of pre-Rel-6 work still on-going (other than corrections)
- Review of on-going features (Rel-6/Rel-7)
- Conclusion

In **Black**: Name of the task

In **Red**: important statement

In **Turquoise**: question to plenary

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# *Testing activities*



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# ***UE testing R99***

- **Stability of T1 Test Cases:**
  - Stable early August 2003: 57 signalling test cases and 20 RF test cases.
  - Stable by end of 2003: up to 250 test cases
  - Stable by March 2004: all the remaining ones, i.e. 398 in total.
- **BUT when the baseline change (e.g. from March 02 to March 03), the test cases need to be re-validated.**
- **Certifications targeted to be issued by GCF starting June 2004.**

# UE Testing Rel-4

- **Ongoing** activities (% complete, foreseen completion date):
  - Low Chip Rate TDD (60%, prose March 04, TTCN Dec 04)
  - Emergency call enhancements (completed)
- **Not started** yet: Conformance testing might be needed for (expected clarification)
  - MMS – is testing required to be done by T1?
  - Transparent End to End (Video/Audio) PD mobile streaming
  - UE LCS Aspects
  - Advice of Charge
  - VHE – OSA

# ***UE Testing Rel-4***

- **Work to be performed by T1 to be clarified on:**
    - **General changes to TS34.121 corresponding to release 4**
    - **IETF aspects of 3GPP RoHC / RAB support for Extended RoHC (Note: RAN2 expects T1's answer on whether it is necessary to test the ROHC protocol in 3GPP knowing it will be done in IETF)**
  - **Is it Release 4?:**
    - **Maintenance of the R99 test specification and test cases (SIG)**
    - **Creation of the Release 99 TCs for TDD, prose and TTCN (SIG)**
    - **Extensions to R99 Test cases (SIG), covers the completion of FDD prose and TTCN (Prose: 90%, Dec 03; TTCN: 12%, March 04)**
  - **No information on testing of:**
    - **Physical Layer (RF)**
    - **Bearer modification without pre-notification (SIG)**
-  **T1 needs to develop a clear view on which Rel-4 features need to be tested.**

# ***UE Testing Release Independent***

- **Completed:**
  - Testing UMTS 1800 (SIG/RF)
  - Testing UMTS 1900 (SIG/RF)
- **Ongoing activities:**
  - Optimisation of Test Time, RF Aspects (FDD and TDD) (80% for FDD, 70% for TDD, Sep 03)
- **Not started:**
  - New Bands (800 MHz, 850 MHz, 1.7/2.1 GHz)

# ***UE Testing Rel-5***

- Testing activities of Rel-5 features not started yet.

# GERAN UE Testing

**Note: GERAN Rel-5 Testing TSs also cover the testing of earlier Releases (refer to 51.010 Part 2)**

- **MS conformance test for Intra BSC NACC (Rel-4): 85% (\*)**  
**GERAN MS Conformance test for LCS (Rel-5): COMPLETED**
  - **Not started yet (Rel-5):**
    - **GERAN MS Conformance test for GERAN interface evolution (completion expected by June 2004)**
    - **GERAN MS Conformance test for Enhanced Power Control (\*)**
    - **GERAN MS Conformance test for 8-PSK Half Rate (\*)**
    - **GERAN MS Conformance test for AMR Wide Band (\*)**
- Alignment between the different test regimes for GERAN capable MS : test cases to be added to TS 51.010 started (\*) Completion expected by November 2003**

# GERAN BTS Testing

- GERAN BTS Conformance test for 8PSK HR **COMPLETED**
  - GERAN BTS Conformance test for AMR WB **COMPLETED**
  - **Not started yet (Rel-5) :**
    - GERAN BTS Conformance test for GERAN interface evolution (**Completion expected by April 2004**)
    - GERAN BTS Conformance test for the Flexible Layer One (**Completion expected by January 2004**)
    - GERAN BTS Conformance test for Enhanced Power Control (\*)
    - GERAN BTS Conformance test for LCS (\*)
- (\*) Completion expected by November 2003**

## ***GERAN Rel-6 Testing activities***

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

Support of the Multimedia Broadcast Multicast Service (MBMS) in GERAN (MS): **0%**, completion expected by **February 2004**

•GERAN Conformance tests for the Flexible Layer One (MS/BTS) : **0 %**, completion expected by **January 2004**

•Seamless support of streaming services in A/Gb mode (MS) : **0 %**, completion expected by **January 2004**

•Addition of frequency bands to GSM (TAPS) – Conformance tests : **0%**, completion expected by **November 2003**

•GERAN MS testing for Multiple TBF in A/Gb mode : **0%**, completion expected by **January 2004**

•Support of Conversational Services in A/Gb mode via the PS domain: **0%, NOT STARTED (WID to be approved)**



***Review of pre-Rel-6 work  
still on-going  
(other than corrections)***

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# *Extended Transparent Packet Switched Streaming Services*

TR 26.937 version 2.0.0 "RTP Usage Model" (Release  
5) presented for approval at SA#21 **COMPLETED**

# GERAN Rel-5

## GERAN Incomplete Work Items for Release 5

- Multiple TBF A/Gb mode => moved to Rel-6

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

- **MMS (Multimedia Messaging Service) enhancements**  
**COMPLETED.**  
3GPP part completed at TSG-T#16  
OMA part MM1 (interface MMS User Agent and MMS Server/Relay) stage 3 completed in June 2003



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

**Will belong to Rel-6 or to Rel-7**

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# List of on-going Features (1/4)

Unique ID	Feature	Acronym
2	Evolutions of the transport in the UTRAN	ETRAN
1216	Improvements of Radio Interface	RInImp
2468	Multiple Input Multiple Output antennas (MIMO)	RInImp-MIMO
9	RAN improvements	RANimp
32045	PS domain and IMS impacts for supporting IMS Emergency calls	EMC1
32023	Location Services enhancements 2	LCS2
1571	Security enhancements	SEC1
33017	Network Domain Security; Authentication Framework (NDS/AF)	SEC1-NDS-AF
32021	IMS Phase 2	IMS2
32015	Radio optimisation impacts on PS domain architecture	
11032	Interop and Comnality between IMS using different "IP-connectivity Networks"	IMSCOOP
1365	Support of Push Services	PUSH
42009	Multimedia Messaging (MMS) enhancements	MMS6
42005	Rel-6 MExE enhancements	MEXE6

## List of on-going Features (2/4)

Unique_ID	Feature	Acronym
2062	Subscription Management	SM
2499	Support of Presence Capability	PRESNC
2544	Multimedia Broadcast and Multicast Service	MBMS
34026	Definition of teleservice using Multimedia Broadcast/Multicast Service	TSMBMS
31006	Speech Recognition and Speech Enabled Services	SRSES
31008	Generic User Profile	GUP
31010	Digital Rights Management	DRM
31012	WLAN-UMTS Interworking	WLAN
31015	Priority Service	PRIOR
31018	Network Sharing	NTShar
32016	QoS Improvements	QoS1
33002	Support for subscriber certificates	SEC1-SC
15010	Rel-6 OSA enhancements	OSA3



# List of on-going Features (3/4)

Unique_ID	Feature	Acronym
34300	Perf characterisation of default codecs for PS conval mma application	CODCAR
31029	Study of Feature Interactions Requirements	FINTER
31030	Study on Privacy Capability	PrivCap
35010	OAM&P	OAM
35016	Charging Management	CH
1800	Rel-6 UICC/USIM enhancements and interworking	USAT1
34022	Packet Switched Streaming Services Rel-6	PSSrel6
34023	AMR-WB extension for high audio quality	AMRWB+
12006	Enhancement of dialled service for CAMEL	EDCAMEL
32060	Bandwidth and resource savings in CS networks	
	3GPP Enablers for services like PoC	
33018	FS on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces	



# List of on-going Features (4/4)

<b>Unique_ID</b>	<b>Feature (GERAN-related)</b>	<b>Acronym</b>
50401	Addition of frequency bands to GSM	TAPS
50056	Enhanced A/Gb feasibility study	AGbEnFS
50063	Flexible Layer One for GERAN	FLOGGER
50541	Uplink TDOA location determination for GSM/GPRS	UTDOA
50041	Uplink TDOA feasibility study	TDOAF
50130	Seamless support of streaming services in A/Gb mode	SSStrea
51101	Single Antenna Receiver Interference Cancellation (SAIC)	SAIC
50500	Support of Conversational Services in A/Gb mode via the PS domain	SCSAGB
50600	Multiple TBF in A/GB mode	MULTBF
50081	Alignment between the test-regimes for GERAN capable MS	ALTERE

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

- Basket for potential work items regarding transport in UTRAN.
- Although no work items proposed so far, feature should be kept in the Work Plan as e.g. work in the field of inter-working between IP and ATM might lead to a work item in the future.
- Feature might also be shifted to a later Release

## ***Rel-6 Improvements of Radio Interface***

- Improvement of inter-frequency and inter-system measurement (R1).  
In progress. Proposed Completion Date is left open
- Improving Receiver Performance Requirements for the FDD UE (R4).  
WI Closed. Discussions on future work under this topic concluded that new WIs, with precisely defined scopes, should be opened
- UMTS 850. In progress. (R4) XX% progress, Completion date March 2004.
- UMTS 800. In progress. (R4) XX% progress, Completion date September 2003
- UMTS 1.7/2.1GHz In progress. (R4) XX% progress, Completion date December 2003

## ***Rel-6 Improvements of Radio Interface.*** **Feasibility Studies**

- Radio link performance enhancements (R1): **No info. Completion date March 2004 ?**
- Improvement of inter-frequency and inter-system measurements for 1.28 Mcps TDD (R1)
  - 25.888 V2.0.0 is going to be presented for approval to put under version control.
  - SI finished**
- Deployment of UTRA in additional spectrum arrangements (R4). **Study finished, conclusions will be presented to ITU WP8F**
- UTRA Wide Band Distribution Systems (R4) **Work on going, new simulations presented. Completion date March 2004**

## ***Rel-6 Improvements of Radio Interface.*** **Feasibility Studies**

- **OFDM analysis for UTRAN evolution (R1) Work on progress 40% complete. Work in progress. Several (20) contributions for the OFDM study have been submitted prior to the meeting, covering a lot of different aspects: OFDM sensitivity to time/frequency synchronisation, OFDM channel estimation, simulation methodology, simulation results, UE impact, UE complexity analysis, etc.**
- **R1-030924, TR25.892, Analysis of OFDM for UTRAN enhancement, version 0.3.1**
- **Completion date December 2003**
- **Low Output powers for FDD BSs (R4) Work Progress XX% complete. The feasibility of one solution agreed in R4; the group believes that the work impacts mostly R3, responsibility transferred to that group. Completion date December 2003**

## ***Rel-6 Improvements of Radio Interface.*** **Feasibility Studies**

- **Analysis of higher chip rates for UTRAN TDD evolution (R1) In progress. Work in progress.**
  - RAN1#33: Five documents were covered covering the following aspects :
    - o Downlink link level results for Release 99 channels
    - o System level simulation results for HSDPA channels
    - o Schedulers used in system level results
    - o Interpretation of system level results
  - RAN4#28: no contributions

R1-030926 "TR25.895 v1.2.0 : Analysis of higher chip rates for UTRA TDD evolution" as the result of R1#33.  
60% complete. Completion date **December 2003**
- **Uplink Enhancements for Dedicated Transport Channels (R1)**
  - **No info Completion date December 2003 ?**
- **Uplink Enhancements for UTRA TDD (R1)**
  - **No info Completion date March 2004 ?**

# Multiple Input Multiple Output antennas (MIMO)

RAN1: On progress. Different proposals presented at RAN1#33. Progress on the TR 25.876 to reflect the expanded scope of the MIMO WI beyond HSDPA, to include TDD and to update the requirement section.

RAN2, RAN3: No progress

RAN4: Discussions to introduce advanced receiver structures and HSDPA testing under MIMO-RFm but no agreement. Work in progress

Completion date for the Work Tasks **March 2004** for RAN1, RAN2 and RAN3 aspects and **December 2004** for RAN4

## ***RAN improvements – Rel-6***

- **Network Assisted Cell Change from UTRAN to GERAN – Network Side Aspects (R3) TR 25.901** created and now in v0.3.0 including e.g. comparative analysis of the UTRAN NACC signalling architecture. Progress 30%. Completion date unchanged **December 2003**.
- **Remote Control of electrical antenna tilting (R3) TR 25.802** introduced including some requirements. Progress 15%. Completion date changed from Dec. 2003 to **March 2004**.
- **Improvement of RRM across RNS and RNS/BSS (R3):** TR 25.891. No activity since RAN #20. Progress: 35%. Completion date unchanged **December 2003**

## ***RAN improvements – Rel-6***

- **Beamforming Enhancements (R1)** **No info** on progress. **Completion date was September 2003. New date?**
- **RAB support enhancement (R2): Generic Building Block with the Work Task:**
  - **Iu enhancements for IMS support in the RAN (R3) TR 25.852 reintroduced for REL-6 and filled with introduction, scope and RAN requirements. Progress 10%. Completion date unchanged March 2004.**
  - **Optimisation of voice over IMS discussed at RAN2#37, More contributions were invited in this area.**

## ***RAN improvements - Feasibility Studies***

- **Evolution of the UTRAN Architecture (R3):**
  - Several contributions but no time to treat them; TR 25.897
  - Level of completion: 20%, Completion date changed from Dec. 2003 to **March 2004**
- **Improved access to UE measurement data for CRNC to support TDD RRM (R3):**
  - Option 2 (Measurement procedure between DRNC and SRNC) was selected; TR 25.801 completed
  - SI is 100% complete at RAN #21, **September 2003**
  - Changes will be either introduced as TEI6 or as a new WI

# ***PS domain and IMS impacts for supporting IMS Emergency calls***

- Service requirements for CS domain in TS 22.101 and for IMS aspects in TS 22.228. **Completed.**
- SA2 work completion to be completed by **March 2004** (moved from September 2003, and was moved from March at SA#19)
- Stage 3 Completion date **June 2004** (was December). IETF dependencies.
- CN#20 has approved a revised integrated WID for UEs with and without UICC/(U)SIM in Networks containing an IMS.

## *LCS enhancements 2 (1/2)*

It consists of several independent LCS-related improvements

- Stage 1 completed by SA1 at SA#20,
- New completion date for Stage 2: **December 2003** (was September 2003). Little progress on Galileo (TR to be completed potentially by March 2004).
- Stage 3 not started by CN1 (no WID so far). Most aspects to be done by CN1, some other aspects to be done by external bodies, particularly OMA, e.g. for inter-GMLC interface. No RAN nor GERAN impacts foreseen for these aspects. Planned to be finished by **March 2004**.

# LCS enhancements 2 (2/2)

- **RAN aspects (“UE positioning”):**
  - SI on Enhancements to OTDOA Positioning using advanced blanking methods: Document presented at RAN1#33 on enhancing IPDL for this SI. But felt outside of the scope of RAN1. Guidance from RAN is sought.
    - OPEN issues are complexity of UE and SMLC, simulation parameters and performance analysis.
    - Level of completion: **50 %**. **Completion date?**
  - Open SMLC-SRNC Interface within the UTRAN to support Rel4 positioning (R2): After approval of RAN WG3 CRs, position calculations that incorporate the following Rel-4 positioning methods are possible via lupc:
    - ✍ Assisted GPS (already possible via lupc since Rel-5)
    - ✍ Cell-ID based positioning, optionally including:
      - Round Trip Time for FDD and TDD
      - Pathloss
    - ✍ Observed Time Difference of Arrival
  - **WI finished**
  - A-GPS minimum performance specification (R4): **Work started**

# *Security Enhancements Rel-6*

- **Network domain security**
  - **NDS/IP: TS 33.210 approved at SA#18. “F” CRs to SA#21**
  - **NDS/AF (Application Framework): WID approved at SA#19. Related TS to be completed by 03/2004**
  - **GERAN A/Gb mode security enhancements :**
    - **Ongoing Discussion to be finalised in S3’s October meeting. Completion is now targeted for 12/2003 (was 09/2003)**
  - **G-MILENAGE Algorithm: completed at SA#18.**

## **IMS Phase 2 (1/3)**

- ***Different independent items:***

Stages 1 and 2 completed (in resp. 22.228 and 23.228) for:

- **IMS Local services.**
  - Stage 3: not started.
- **Mm interface (CSCF to external IP multimedia network)**
  - Stage 3 (TR 29.962) **completed** by CN3 at CN#20, being reviewed by SA2
- **Interworking between IMS and CS networks (and Mg interface (BGCF to MGCF - interworking with CS))**
  - Stage 3 in TS 29.163 to be approved in September 2003 by CN#21.
- **Mn interface (IM-MGW to MGCF) enhancements**
  - Stage 3 in TS 29.332 (CN4): No progress after CN#20. Previous completion date (December 2003) **to be clarified**
  - Stage 3 in TS 29.163 (CN3): target completion date to be clarified, **March 2004?**
- **Mp (MRFC - MRFP) interface protocol definitions**
  - Target for Stage 3 in TS 29.333 (CN4): No progress after CN#20. Previous completion date (December 2003) **to be clarified**

# IMS Phase 2 (2/3)

Stages 1 and 2 completed for (contd):

- Gq (PDF – P-CSCF) interface, policy control
  - Draft TS 29.209 (CN3): target completion date **March 2004?**
- Lawful Interception in the 3GPP Rel-6 architecture
  - WID approved at SA#19. Completion date is **December 2003**

Note: Stage 3 is closely dependent to the progress made by IETF

- IPv6/IPv4
  - WID on “Interworking aspects and migration scenarios for IPv4 based IMS Implementations” presented by SA2. Corresponding TR to be presented for information at SA#23 and for approval at SA#24 (**June 2004**).
- Enhancements to Cx and Sh interfaces:
  - WID approved at CN#20. CRs on definition of public identities and sharing of public identities approved. Completion date is **March 2004**
- IMS Group Management:
  - Stage 2 to be completed by **Dec. 2003**
  - Stage 3 to be completed by **June 2004**

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# IMS Phase 2 (3/3)

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**80% of Stage 2 completed and Corresponding stage 3 to be completed by:**

**March 2004** for Review additional SIP Capabilities against IMS

**June 2004** for IMS Conferencing and IMS Messaging

**Additional SIP Capabilities support not covered by Rel-5: This covers various minor enhancements to SIP, and the main work involves taking new RFCs for SIP as they are approved by IETF, and stating how 3GPP supports those extensions. As these RFCs keep coming out, the release 6 work will be completed by the release 6 freeze date, whenever that is.**

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## *Radio optimisation impacts on PS domain architecture*

- SA2 has decided to **delete** this feature

## ***Interoperability and commonality between IMS using different IP connectivity networks (IMSCOOP)***

- **Commonality feature is done. When Interoperability feature could be done is in question (work to be done in collaboration with 3GPP2).**
- **Stage 3 started. Foreseen to be completed by **December 2003.****

# *Push Services*

- **Stage 1: Stable, in TS 22.174**
- **Stage 2: WID approved at SA#18, planned to be completed by **December 2003** (was September)**
- **Stage 3 not started and hard to be evaluated as there is no Stage 2. If 3 to 6 months are needed after Stage 2 is stable, this will lead to **March or June 2004.****

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

- Service requirements from SA1 stable
- Enhancements are planned in the following and other areas (revised WID to be presented to TSG-T#21):
  - Consider and accommodate the needs of IMS
  - Support for enhanced charging methods
  - Terminal capability negotiation enhancements
  - Security and privacy enhancements
  - Enhancements to MM1 and MM4 reference points
  - Enhancements of the interworking with external messaging systems
  - Addressing enhancements
- The following enhancements have been completed so far:
  - Support of Digital Rights Management for MMS
  - Support of Over-The-Air provisioning of MMS parameters
- Planned completion date **March 2004**. Work performed in cooperation with OMA.

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

- ***WID MExE Rel-6 Improvements and Investigations***
  - **Completed at TSG-T#19.**
- ***WID MExE Run-Time Independent Framework Feasibility Study***
  - **Completed at TSG-T#18.**  
TR 22.857 Runtime Independent Framework Feasibility Study approved at TSG-T#18.

**Comment from TSG T#19: no real new service offered by this feature.**

# Subscription Management

## SA5 Rel-6 Feature: Subscription Management (SM)

60%

- TSG Approval target remains **03/2004**.
- Work ongoing: 32.140/1, Use Cases, Investigate N4 R5 23.008 & S5 R96 12.02, Interface IRP, IRP Network Resource Model, Investigate GUP re-use as SM solution set.

### Specification status:

- 32.140 SM Requirements - SA#19 Approved
- 32.141 SM Architecture - SA#21 submittal for Approval (**SP-030405**)

### Approval target **03/2004** for:

- 32.171 Service Operations Management: SM Resources IRP: Requirements
- 32.172 SOM; SM Resources IRP: Network Resource Model
- 32.173 Protocols (IRP Solution Set)

### Still no Editors for:

- 32.161 SOM; SM Interface IRP: Requirements
- 32.162 SOM; SM Interface IRP: Information Service
- 32.163 SOM; SM Interface IRP: XXX Solution Set

# Presence

- Stage 1 in TS 22.141 approved at SA#13
- Stage 2 in TS 23.141 approved at SA#17
- Work in SA4 Codec and Formats: Current status: **early work in progress (10%)**
- SA4 work in TS 26.141 foreseen to be completed by **December 2003**
- Stage 3 in the CN defined by CN1 and CN5, to be completed by **March 2004** (was December).

## ***Multimedia Broadcast/Multicast Service (1/2)***

- **Stage 1 completed in TS 22.146 (some issues still being finalised)**
- **Overall Stage 2 (SA2) in TS 23.246 presented for approval now (September 2003)**
- **CN1 work is planned to be completed by March 2004 (was December).**
- **CN3 studying use of Radius or Diameter for Gmb interface, also to be completed by March**
- **Introduction of MBMS in RAN (R2): TR 25.992 (MBMS UTRAN/GERAN Requirements) is presented to TSG\_RAN #21 for approval. MBMS discussions took place in RAN2#37, where UE MBMS capability principles were agreed. Level of completion: 40% Target date: March 2004**

## ***Multimedia Broadcast/Multicast Service (2/2)***

- Support of MBMS in GERAN : **20%**, completion expected by **February 2004** (was November 2003).
- Work **ongoing** in SA3. Draft MBMS Security to be completed by December 2003 (50% complete). Depends on CN3's choice on the Gmb interface.

## *Teleservices using MBMS*

- **Stage 1 completed**
- **Stage 2 not started**
- **SA4 work: WID Updated in SP-030442 for approval at SA#21 (completion expected **6 months after Stage 2, i.e. Mid 2004**)**
- **No work started in the other involved WGs listed in the WID**

# Speech Recognition and Speech Enabled Services

- Stage 1: TR 22.977 and TS 22.243 on SES approved at SA #17. Open issue on reconstructed speech.
- Stage 2: WID presented for approval at SA #21. TR to be presented for information at SA#22 and for approval at SA#23 (**March 2004**).
- WID SA4 on Codec Work to Support Speech Recognition Framework for Automated Voice Services was approved at SA #18 (covering SES aspects)
  - Design Constraints, Test and Processing Plan, Time scale **DEFINED** in SA4
  - Recommendation criteria presented for approval at SA#21The evaluation of candidates is on-going  
Completion in SA4 expected by **December 03 for SA4 aspects.**
- **No other work needed, e.g. by CN1?**

# Generic User Profile

## Work **ongoing**

- Stage 1: 22.242 approved; CRs to SA 21 for fine tuning
- Stage 2: 23.240 approved
- WID identifying T2 related work approved at T#18. TS 23.241 (GUP, Stage 2, Data Description Framework) and TS 24.241 (GUP, Stage 3, Access; Common Objects) both to be completed by **March 2004** (was December).
- Stage 3: Outline of draft TS 29.240 approved at CN4#19
  - Further development awaits the maturity of the stage 2.
  - Estimated completion 30%. TS 29.240 will be presented for approval at CN#23 in **March 2004**.

# *Digital Rights Management*

## 3GPP Work **Completed**

- 3GPP Stage 1 in TS 22.242, stable
- For Stages 2 and 3, it has been decided to refer to OMA work
- OMA defines its own Stage 1 - Input required from OMA; none currently available
- Note that the information on progress made by OMA and the consistency between 3GPP's and OMA's Stages 1 will be ensured by the companies attending both fora.



# ***WLAN/UMTS interworking (1/2)***

- **Stage 1: covered by CRs on existing specs (22.101, 22.115). Work is stable (based on FS in TR 22.934). Fine tuning in progress.**
- **Stage 2 in TS 23.234 on WLAN Interworking Architecture Definition provided again for information (and not for approval as originally planned). Presented for approval now **September** (was March and then June).**
- **Draft Security TS updated at S3#27 (50% complete). The current hope is to complete for **December** 2003 in order to allow other groups to work on the detailed protocols.**



# ***WLAN/UMTS interworking (2/2)***

- **CN1 has approved skeleton of TS 24.234 to be completed in **March 2004****
- **Stage 3 Outline of draft TS approved at CN4#19:**
  - 3PP TS 29.234 v1.0.0 presented information at CN#21
  - Estimated completion 60% **12/03**
- **CN3 and T3 might also be involved (wait for Stage 2 to be stable)**

# Priority Service

- FS completed: TR 22.950 approved at SA#16. CRs provided on existing specs.
- TR 22.952 on Priority service implementation guide for information at SA #21, for approval at SA#22
- No Stage 2 needed.
- CN WGs not aware of work to developed for this feature. Is a stage 3 needed?
- Foreseen completion date is **not before March 2004.**

# Network Sharing

## Work **on-going**.

- FS in TR 22.951 approved at SA #18.
- Stage 1: Complete, covered by CRs on existing specs (22.011, 22.101, 22.115 and 22.129).  
Awaiting feedback from other groups.
- Stage 2: TR 23.851 presented for information now in September and may be completed in **December 2003** (was September at SA#19). SA2 has not yet decided whether a TS will be needed or not.
- Stage 3 not started but estimates **March 2004**

# QoS Improvements

## This Feature consists in:

- a Feasibility Study on Dynamic Policy Control Enhancements for End-to-End Quality of Service (QoS)
  - Stage 2: WID revised at SA#17 to clarify that a FS is initially proposed, in TR 23.917. TR 23.917 is provided for information at SA#21 and intended completion date is SA#22.
  - Stage 3 (CN3): Draft TS 29.209 for “Policy control over Gq interface”. Studying different protocols (COPS, Diameter, XML). Estimated completion **March 2004**
  - WID for Gq interface approved at SA#20. Corresponding technical work to be completed by **March 2004**.
- WID approved at SA#18 on Policy-based control of DiffServ.
  - SA1 has provided requirements on this issue (even though there is no entry for SA1 in the Workplan).
  - No discussion at SA2 on this issue
  - **Check who is supporting this item.**

# Support for Subscriber Certificates

Stages 1 and 2 defined by SA3. Draft TS to be presented **for information at SA#22** (was SA#21).

Progressing in SA3: Draft TS for “Bootstrapping and Support for Subscriber Certificates” progressing in SA3 (30% complete)

- TR in progress (Active contribution at SA3#25 - SA3#28). Presented for information at SA#19.

WID to cover stage 3 presented by CN4 at CN#21  
SA1 and SA2 work done, T3 work not started.

Is CN1 likely to be involved?

# OSA Improvements

## Rel-6 Feature OSA enhancements **45%**

- TSG Approval remains **03/2004** (synch with Parlay 5.0)
- *Java code* included from Rel-5 onwards. CRs approved by CN#21.
- *Parlay X Web Services* (OSA interfaces for different levels of abstraction) progressing well.
- *Structural problem to define OSA stage 2*: Whereas Stage 1 is specified by SA1\_OSA and Stage 3 is specified by CN5, there is no corresponding group for Stage 2. This is causing problems in identifying architectural impacts of Rel6 requirements, and OSA impacts of other requirements like GUP.
- **No contributions** since two CN meetings. CN5 (via CN#21) suggests SA1 to remove requirements:
  - Retrieval of Visited Network capabilities
  - Enhanced user privacy in LCS
  - Network functions for end-user/application interaction support

# *Performance evaluation of multimedia codecs for PS conversational services*

- **Status:**
  - *Budget defined up to 160 kEURO (+ 34 kEURO contingency left from AMR-WB exercise, 5.1 kEURO still to be authorized, by written letter, by three Companies)*
  - *Conversational testing methodology selected*
  - *Test plans & UMTS simulator & Test bed **DEFINED***
  - *Contracts for Host and 3 Testing Laboratories **DEFINED***
  - Completion of experiments expected by **December 2003***
  - Completion of TR expected by **March 2004***

## ***Privacy Capability***

- Work ongoing in SA1, no output
- Input from OMA Requirements being addressed

## ***Feature Interaction***

No progress. Proposed to be **deleted**.

# OAM&P (1/2)

## Operation, Administration, Maintenance and Provisioning

Global progress: **50%**

- **TSG Approval target remains 03/2004.**

### BB: Network Infrastructure Management **40%**

- **8 New TSs for SA information: 32.350** Communication Surveillance Requirements, **32.361/2/3** Entry Point IRP: Requirements/ Information service/ CORBA solution set, **32.681** Inventory Management Requirements, **32.695** Inventory Management Network Resources IRP: XML File Format Definition, **32.711/2** Transport Network NRM IRP: Requirements/ Network Resource Model.
- **Work ongoing:** Security Management, Communication Surveillance, Entry Point, Alignment of China Mobile/SA5 CM/FM framework & NRMs, Generic File Transfer IRP, Log Management IRP, Inventory Management, ATM-UTRAN Interface Management, UTRAN NRM Enhancements for TDD and FDD modes

### BB: Principles, Requirements & Architecture **50%**

- **Work ongoing:** Service Operations Management Framework, Management of SSEs, Impact of Emergency Call Enhancements, Traffic Congestion Controls, Impact of Network Sharing, Impact of WLAN Interworking.

# OAM&P (2/2)

## **BB: Performance Management (PM)**

**50%**

- **Work ongoing:** IRP Information Service/solution sets, File Format enhancements, Measurement Job Administration, Performance Threshold Management , Performance Measurement definitions.

## **BB: Trace Management (RAN3, CN1/4 work needed)**

**60% in SA5**

- **Work ongoing:** Concepts and requirements, Control and configuration management, Data definition and management , Impacts on Network Signalling Interfaces, GSM Trace.
- **Feedback** on new work to be done by CN1/4 expected.
- **Monitoring** RAN3 work task progress.
- **Subscriber and Equipment Trace support in UTRAN (RAN3):**
  - **WI started at RAN #20; RAN3 internal TR started with some requirements and 2 identified high level solutions for Management activation.**
  - **15% complete; completion date changed from Sep. 2003 to March 2004 RAN #23**

## **BB: User Equipment Management - work stopped/abandoned**

**12% in SA5**

- **Good progress:** OMA Device Management.
- **SA5 work stopped** (No feedback from other 3GPP WGs).

# ***Charging Management***

## **SA5 Rel-6 Feature Charging Management (CH) 55% in SA5**

- TSG Approval target remains: **03/2004**.

**New TR 32.815** On-line Charging System architecture study – for SA approval  
(Started spin-off work TS 32.296 OCS: Applications and interfaces)

**New TSs** for SA information:

- 32.271 Location Service (LCS) charging
- 32.270 Multimedia Messaging Service (MMS) charging
- 32.298 Charging Data Record (CDR) parameter description
- 32.251 Packet Switched (PS) domain charging

Problem of human resources now solved. Work progress improved with new delegates.  
The actively contributing members do NOT support any split of the charging work.

## **IP Flow Based Bearer Charging Evolution (SA2)**

- SA2 TR 23.825 for SA#21 information & target for Approval **SA#22 (12/03)**. 61

# ***UICC/USIM enhancements and interworking for Rel-6***

## **USIM toolkit enhancements**

- **C SIM API: 'C'-language binding for (U)SIM API for Release 6. Completed at T#17.**
- **Test specification for 'C'-language binding for (U)SIM API. New specification presented for information at T#17. Completed at TSG T#19.**
- **2G/3G Java Card™ API based applet interworking. WI approved at T#19. First draft of TR presented for information at T#20. Work Item delayed. Foreseen to be completed at T#22 (was T#21).**
- **New work item on I-WLAN aspects of the USIM for approval at T#21.**

### **Note:**

Common UICC enhancement are specified by ETSI Project Smart Card Platform EP SCP (including 3<sup>rd</sup> form factor and UICC next generation). Decision on 3<sup>rd</sup> form factor at SCP#15.

# ***Packet Switched Streaming Rel-6***

## ***(1/2)***

- **Stage 1 completed**
- **New set of enhancements on PSS approved at SA #18.**
- **SA4 has restructured the whole set of main specifications for PSS Rel-6 (new TSs 26.244, 26.245, 26.246)**

**Completion in SA4 expected by **December 2003** (at present **35% completed**)**

**PSS/MMS audio codec selection expected by **March 2004** (see separate slide)**

# ***Packet Switched Streaming Rel-6***

***(2/2)***

## ***Audio Codec***

- **WID SA4 on AMR-WB extension for Audio Quality updated at SA #19.**
- **Competition for Lower and Higher Bit Rate Audio Codec approved at SA #19 (on going)**
- **Design Constraints and Performance Requirements COMPLETED**
- **PSS/MMS Audio Codec and Extended AMR-WB Selection Rules presented for information at SA#21**

**Completion expected by March 2004**

# ***AMR-WB extension for high audio quality (AMR-WB+)***

- Updated WID SA4 on AMR-WB extension was approved at SA #19
- Selection rules presented for information at SA#21
- SA4 work on AMR-WB+ expected to be completed by **March 2004** (was December 03)
- SA4 should inform CN1 as soon as possible if there is some impact on CN1 (e.g. introduction of new codec types)

# ***Enhancement of dialled service for CAMEL***

- Work is ongoing – 90% completed. Stages 2 and 3 to be completed by **December 2003** (collective CRs will be presented for approval at CN#22)
- Small technical enhancements for CAMEL in Release 6 will be done under the WI TEI\_6

# **BARS**

**In full: Bandwidth and Resource savings and  
Speech Quality enhancements**

- **Stage 2 TR 23.977 is completed at March 2004.**
- **No information on Stage 3 nor on SA4 impacts at the moment**
- **No Stage 1 required**

# ***3GPP Enablers for services like Push to Talk over Cellular (PoC)***

- SA2 approved this WID. Impacts on 23.228 foreseen.
- Time schedule:
  - SA#22 for information
  - SA#23 for approval
- No information on Stage 3 at the moment
- No Stage 1 envisaged
- Can we have shorter names for Features?

# ***FS on (U)SIM Security Reuse by Peripheral Device on Local Interface***

- **No information at the moment**
- **See comment on previous slide on length of Feature names**

# GERAN Rel-6

## Features:

- Addition of frequency bands to GSM : **COMPLETED**
- Multiple TBF in A/Gb mode : **COMPLETED**
- Seamless support of streaming services in A/Gb mode: **completion of optimization expected by November 2003**
- Flexible Layer One for GERAN: **completion expected by November 2003**
- Single Antenna Receiver Interference Cancellation (SAIC): **60% ready, completion expected by November 2003**
- Support of Conversational Services in A/Gb mode via the PS domain: **completion completion expected by August 2004**
- Alignment between the test-regimes for GERAN capable MS : **STARTED**
- Uplink TDOA location determination for GSM/GPRS:
  - in the CS domain: **60% completed, ready by April 2004**
  - in the PS domain: **5% completed, ready by Nov. 2004**

## ***GERAN Rel-6***

### ***Feasibility studies:***

- Enhanced A/Gb feasibility study **completed**
- Uplink TDOA feasibility study **completed**. GERAN should check why this item cannot be considered as a BB of the feature “Uplink TDOA”.

## *Reminder on deleted items*

- Preferred framing protocol for bearer independent CS architecture, part of “Evolutions of the transport in CN”, deleted at CN#19
- Enhanced Tandem Free Operation (eTFO) never approved
- Identity Portability in IMS deleted at SA#19
- Enhanced home environment control of security deleted at SA#19
- Security signalling flows for the Ze interface deleted at TSG#18
- Note that this list does not include the ones proposed for deletion at TSG#21



# ***Conclusion***



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# ***Completion dates***

- **Next slides summarize the Foreseen Completion Dates (FCD) for each Feature**
- **The completion dates are given in terms of TSG#. As a reminder, the calendar is:**
  - (TSG #) 22: December 2003
  - (TSG #) 23: March 2004
  - (TSG #) 24: June 2004
- **NR: Not Relevant**
- **“?”: not able to provide any estimate/unsure estimate**
- **“/” means “or” (unable to predict more accurately)**
- **“+” means that the feature can be split in two independent features**
- **“Shifted” indicates whether the FCD has changed since TSG #20**



# List of on-going Features (1/4)

Unique ID	Feature	FCD	Shifted
2	<b>Evolutions of the transport in the UTRAN</b>	NR	
1216	<b>Improvements of Radio Interface</b>	21+22+23	No
2468	<b>Multiple Input Multiple Output antennas (MIMO)</b>	23	No
9	<b>RAN improvements</b>	23	No
32045	<b>PS domain and IMS impacts for supporting IMS Emergency calls</b>	24	Yes
32023	<b>Location Services enhancements 2</b>	23	Yes
1571	<b>Security enhancements</b>	23	No
33017	<b>Network Domain Security; Authentication Framework (NDS/AF)</b>	NR	
32021	<b>IMS Phase 2</b>	23	Yes
32015	<b>Radio optimisation impacts on PS domain architecture</b>	NR	
11032	<b>Interop and Comlity between IMS using different "IP-connectivity Networks"</b>	22+?	No
1365	<b>Support of Push Services</b>	23/24	Yes
42009	<b>Multimedia Messaging (MMS) enhancements</b>	23	No
42005	<b>Rel-6 MExE enhancements</b>	NR	

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# List of on-going Features (2/4)

Unique ID	Feature	FCD	Shifted
2062	Subscription Management	23	No
2499	Support of Presence Capability	23	Yes
2544	Multimedia Broadcast and Multicast Service	23	Yes
34026	Definition of teleservice using Multimedia Broadcast/Multicast Service	24	No
31006	Speech Recognition and Speech Enabled Services	23	Yes
31008	Generic User Profile	23	Yes
31010	Digital Rights Management	NR	
31012	WLAN-UMTS Interworking	23	No
31015	Priority Service	23	No
31018	Network Sharing	23	No
32016	QoS Improvements	23	No
33002	Support for subscriber certificates	23	Yes
15010	Rel-6 OSA enhancements	23	No



# List of on-going Features (3/4)

Unique_ID	Feature	FCD	Shifted
34300	Perf charact of default codecs for PS conversational multimedia application	23	No
31029	Study of Feature Interactions Requirements	NR	
31030	Study on Privacy Capability	NR	
35010	OAM&P	23	No
35016	Charging Management	23	No
1800	Rel-6 UICC/USIM enhancements and interworking	22	Yes
34022	Packet Switched Streaming Services Rel-6	23	No
34023	AMR-WB extension for high audio quality	23	Yes
12006	Enhancement of dialled service for CAMEL	22	No
32060	Bandwidth and resource savings in CS networks	?	
	3GPP Enablers for services like PoC	?	
33018	FS on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces	?	



# List of on-going Features (4/4)

Unique_ID	Feature (GERAN-related)	FCD	Shifted
50401	Addition of frequency bands to GSM	Done	
50056	Enhanced A/Gb feasibility study	NR	
50063	Flexible Layer One for GERAN	Nov-03	
50541	Uplink TDOA location determination for GSM/GPRS	Nov-04	
50041	Uplink TDOA feasibility study	NR	
50130	Seamless support of streaming services in A/Gb mode	Nov-03	
51101	Single Antenna Receiver Interference Cancellation (SAIC)	Nov-03	
50500	Support of Conversational Services in A/Gb mode via the PS domain	Aug-04	
50600	Multiple TBF in A/Gb mode	Done	
50081	Alignment between the test-regimes for GERAN capable MS	?	

# *Sorted by Completion Dates*

- Using the same codes, the following slides sort the features by Foreseen Completion Dates



# FCD of Features sorted by FCD (1/3)

Unique_ID	Feature	FCD	Shifted
1216	Improvements of Radio Interface	21+22+23	No
1800	Rel-6 UICC/USIM enhancements and interworking	22	Yes
12006	Enhancement of dialled service for CAMEL	22	No
11032	Interop and Comlity between IMS using different "IP-connectivity Networks"	22+?	No
2468	Multiple Input Multiple Output antennas (MIMO)	23	No
9	RAN improvements	23	No
32023	Location Services enhancements 2	23	Yes
1571	Security enhancements	23	No
32021	IMS Phase 2	23	Yes
42009	Multimedia Messaging (MMS) enhancements	23	No
2062	Subscription Management	23	No
2499	Support of Presence Capability	23	Yes
2544	Multimedia Broadcast and Multicast Service	23	Yes
31006	Speech Recognition and Speech Enabled Services	23	Yes

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# ***FCD of Features sorted by FCD (2/3)***

<i><b>Unique_ID</b></i>	<i><b>Feature</b></i>	<i><b>FCD</b></i>	<i><b>Shifted</b></i>
31008	Generic User Profile	23	Yes
31012	WLAN-UMTS Interworking	23	No
31015	Priority Service	23	No
31018	Network Sharing	23	No
32016	QoS Improvements	23	No
33002	Support for subscriber certificates	23	Yes
15010	Rel-6 OSA enhancements	23	No
34300	Perf charact of default codecs for PS conversational multimedia application	23	No
35010	OAM&P	23	No
35016	Charging Management	23	No
34022	Packet Switched Streaming Services Rel-6	23	No
34023	AMR-WB extension for high audio quality	23	Yes
1365	Support of Push Services	23/24	Yes
32045	PS domain and IMS impacts for supporting IMS Emergency calls	24	Yes
34026	Definition of teleservice using Multimedia Broadcast/Multicast Service	24	No

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# FCD of Features sorted by FCD (3/3)

Unique ID	Feature	FCD	Shifted
32060	Bandwidth and resource savings in CS networks	?	
	3GPP Enablers for services like PoC	?	
33018	FS on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces	?	
50081	Alignment between the test-regimes for GERAN capable MS	?	
50500	Support of Conversational Services in A/Gb mode via the PS domain	Aug-04	
50401	Addition of frequency bands to GSM	Done	
50600	Multiple TBF in A/GB mode	Done	
50063	Flexible Layer One for GERAN	Nov-03	
50130	Seamless support of streaming services in A/Gb mode	Nov-03	
51101	Single Antenna Receiver Interference Cancellation (SAIC)	Nov-03	
50541	Uplink TDOA location determination for GSM/GPRS	Nov-04	
2	Evolutions of the transport in the UTRAN	NR	
33017	Network Domain Security; Authentication Framework (NDS/AF)	NR	
32015	Radio optimisation impacts on PS domain architecture	NR	
42005	Rel-6 MExE enhancements	NR	
31010	Digital Rights Management	NR	
31029	Study of Feature Interactions Requirements	NR	
31030	Study on Privacy Capability	NR	
50056	Enhanced A/Gb feasibility study	NR	
50041	Uplink TDOA feasibility study	NR	

## ***Conclusion***

- **The present Foreseen Completion Dates show that March 2004 could be an appropriate date for freezing Release 6 (23 Features presently anticipated to be completed at this date out of the 29 Features considered)**
- **However, the FCD of 11 out of these 29 Features were shifted in the last three month, showing some instability of these dates**
- **The estimates will be more accurate when the Stage 2 will be stable**
- **So it is proposed to wait until TSG #23 to take a decision on the Rel-6 freezing date.**