3GPP TSG CN/T/RAN/SA #23
Phoenix, Arizona, 10-18 March 2004

Tdoc TP-040006

Review of the Work Plan at Plenaries #23

This version does not include updates from TSG #23.

Content

- **Review of testing activities**
- **Review of on-going features (Rel-6/Rel-7)**
- **Conclusion**

In *Black*: Name of the task

In Red: important statement

In Green: question to the plenary

“FCD” = Foreseen Completion Date

Tdoc TP-040006

Testing activities

Applies to pre-Release 6 Features

UE testing

- **Stability of T1 Release 99 Test Cases (TC):**
  - **Already done:**
    - **GCF Package 1:**
      - » **Sig: 88 TC (89%) , was 83 TC at TP # 22**
      - » **RF: 4 TC (50%)**
    - **GCF Package 2:**
      - » **SIG:46 TC (47%), was 22 TC at TP#22, and 22 more TCs pending approval**
      - » **RF: 9 TC (45%)**
  - **Target: by mid June 04:**
    - **95% of package 1**
    - **80% of package 2**
    - **70% of package 3**
- **Other Releases:**
  - **testing of LCRTDD (Rel-4): ad-hoc meeting to organise the work held on 14th January**
  - **Testing A-GPS Rel 6 Minimum Performance Requirements: CR presented at last T1 meeting (to be revised for next meeting)**

GERAN Testing

UE Testing (when used with GERAN)

- ***Not started yet (Rel-5): GERAN MS Conformance test for*** :
  - ***GERAN interface evolution FCD by June 2004***
  - ***Enhanced Power Control (*)***
  - ***8-PSK Half Rate (*)***
  - ***AMR Wide Band (*)***

  Alignment between the different test regimes for GERAN capable MS : test cases to be added to TS 51.010 FCD by Apr. 2004

BTS Testing

Not started yet (Rel-5): GERAN BTS Conformance test for :

- GERAN interface evolution FCD by June 2004

- Enhanced Power Control (*)

- LCS (*)

(*) FCD not before June 2004 (it was by November 2003, then February 2004)

GERAN Rel-6 Testing activities

(all just started, or even not started yet)

- **Seamless support of streaming services in A/Gb mode (MS) : CLOSED, no work needed**
- **Support of the Multimedia Broadcast Multicast Service (MBMS) in GERAN (MS): started, FCD June 2004**
- **GERAN Conformance tests for the Flexible Layer One (MS/BTS) : not started, FCD June 2004 (it was Jan. 2004)**
- **Addition of frequency bands to GSM (TAPS) – Conformance tests :**

  not started, FCD *not before Nov. 2004* (it was Nov. 03, then Feb. 04)
- ***GERAN MS testing for Multiple TBF in A/Gb mode :* not started, FCD *June 2004 (it was January 2004)***
- **Support of Conversational Services in A/Gb mode via the PS domain:**

  NOT STARTED (WID to be approved)
- **GERAN MS Conformance test for Advanced Receiver Performance: START in *August 2004, FCD* November 2004**
- **Reduction of PS service interruption in Dual Transfer Mode / MS/BTS Conformance testing : START in *June 2004, FCD* November 2004**

Review of on-going features

Will belong to Rel-6 or to Rel-7

List of on-going Features (1/4)

UID	*Feature*	*WG*
2	Evolutions of the transport in the UTRAN	RP
1216	Improvements of Radio Interface	RP
2468	Multiple Input Multiple Output antennas (MIMO)	R1
9	RAN improvements	RP
32045	PS domain and IMS impacts for supporting IMS Emergency calls	S2
32023	Location Services enhancements 2	S2
1571	Security enhancements	S3
32021	IMS Phase 2	S1
32063	3GPP Enablers for services like Push to Talk over Cellular (PoC)	S2
32062	Interworking aspects and migration scenarios for IPv4 based IMS I	S2
11032	Interoperability and Commonality between IMS using different "IP	S2
1365	Support of Push Services	S1
42009	Multimedia Messaging (MMS) enhancements	T2
42005	Rel-6 MExE enhancements	T2

List of on-going Features (2/4)

UID	*Feature*	*WG*
2062	Subscription Management	S5
2499	Support of Presence Capability	S1
50056	Enhanced A/Gb feasibility study	GP
50063	Flexible Layer One for GERAN	GP
50041	Uplink TDOA feasibility study	GP
2544	Multimedia Broadcast and Multicast Service	S1
31006	Speech Recognition and Speech Enabled Services	S1
31008	Generic User Profile	S1
31010	Digital Rights Management	S1
31012	WLAN-UMTS Interworking	S1
31015	Priority Service	S1
31018	Network Sharing	S1
32016	QoS Improvements	S2
33002	Support for subscriber certificates	S3

List of on-going Features (3/4)

UID	*Feature*	*WG*
15010	Rel-6 OSA enhancements	S1
50401	Addition of frequency bands to GSM	GP
50130	Seamless support of streaming services in A/Gb mode	GP
34300	Performance characterisation of default codecs for PS conversatio	S4
31030	Study on Privacy Capability	S1
35010	OAM&P	S5
35016	Charging Management	S5
1800	Rel-6 UICC/USIM enhancements and interworking	T3
34022	Packet Switched Streaming Services Rel-6	S4
34023	AMR-WB extension for high audio quality	S4
51101	Single Antenna Receiver Interference Cancellation (SAIC)	GP,G1
50500	Support of Conversational Services in A/Gb mode via the PS doma	GP
12006	Enhancement of dialled service for CAMEL	S1
32060	Bandwidth and resource savings in CS networks	S2

List of on-going Features (4/4)

UID	*Feature*	*WG*
33018	FS on (U)SIM Security Reuse by Peripheral Devices on Local Interf	S3
50600	Multiple TBF in A/Gb mode	GP,G2
50096	Alignment between the test-regimes for GERAN capable MS	G3
50444	Addition of U-TDOA in the CS domain	GP
50445	Addition of U-TDOA in the PS domain	GP
50101	Advanced Receiver Performance	GP
50109	Reduction of PS service interruption in Dual Transfer Mode	G2

Evolutions of the transport in UTRAN

- **Basket Feature for potential work items regarding transport in UTRAN.**
- **Significant work in last RAN3 to complete Rel-5 specification with a third option for IP-ATM interworking on Iu, Iur and Iub. Three sets of CRs presented to RAN#23:**
  - **introduction of Q.2631.1**
  - **specifying PWE3 as a new layer 1 option for tunneling ATM over IP**
  - **removal of the 3rd interworking alternative from specifications**

Rel-6 Improvements of Radio Interface

- **UMTS 1.7/2.1GHz. (R4)**
  - **Work completed, CRs from R4 and R2 presented at RAN#23.**
- **Improvements of receiver performance of HSPDA UE (R4)**
  - **Performance Requirements of Receive Diversity for HSDPA**
    - **The WIDSs were reviewed and endorsed. After long discussions, simulation assumptions were agreed. Parameters and configurations for the tests are under debate.**
- **Improvement of inter-frequency and inter-system measurement (R1).**
  - **Taking into account a LS from RAN3, RAN1 concluded that the added complexity on the physical layer would be small from UE and Node B implementation perspective.**
  - **RAN1 identified three different options on how the feature could be implemented, and sent an LS to RAN2 and RAN3 to review the options from RRC and NBAP signalling perspective.**
  - **Revised estimated completion date: June 2004**

Rel-6 Improvements of Radio Interface. Feasibility Studies (1/2)

–**UTRA Wide Band Distribution Systems (R4)**
  – **No progress. Check for supporting companies**

–**Low Output powers for FDD BSs (R3)**
  – **Work finished, Study report available in RP-040076 TR 25.807 "Low Output Powers for general purpose FDD BSs"**

–**Analysis of higher chip rates for UTRA TDD evolution (R1)**
  - **RAN1#36: only one tdoc was treated out of eight contributions. The remainings are to be discussed over e-mail reflector.**
  - **RAN4#30: 6 documents were treated.**
  - **Level of Completion: 80%. FCD ?**

–**Uplink Enhancements for UTRA TDD (R1)**
  - **Discussion on Hybrid ARQ as a candidate technique started in addition to already incorporated techniques.**
  - **Outcome of RAN1#36 is R1-040383 TR 25.804 v 0.1.0 Feasibility Study on Uplink Enhancements for UTRA TDD**

Rel-6 Improvements of Radio Interface. Feasibility Studies (2/2)

- **OFDM analysis for UTRAN evolution (R1):**
  - **The TR has been adapted to the new scope of the OFDM SI, as approved in RAN#22.**
  - **System-level performance results have been included in the TR for textbook OFDM and WCDMA (with Rake and MMSE receivers) in Outdoor-to-Indoor/Pedestrian A and B channel models.**
  - **Near consensus on the remaining steps. Estimated level of completion: 80%**
- **Radio link performance enhancements (R1):** 3 independent topics under study:
  - **Tx diversity for multiple antennas (TR25.869). Simulation results for various schemes presented, but no progress on evaluation of the schemes since RAN WG1#32. Completion expected by 12/2004**
  - **HSDPA enhancements (TR 25.899). Discussion on input papers postponed**
  - **Power Control enhancements (for TDD) (TR 25.898). No inputs**
- **Uplink Enhancements for Dedicated Transport Channels (R1)**
  - **RAN1 considers the SI is ready for closing and recommends a creation of a WI.**

Multiple Input Multiple Output antennas (MIMO)

- RAN WG1:
  - The updated MIMO TR from the previous meeting was approved.
  - Few companies proposed text proposals for MIMO candidates into the TR. One text proposal was agreed and incorporated into the TR while 6 text proposals are agreed to be accepted, at the next meeting, into the TR with changes to take into account the comments received on them.
- Other RAN WGs: MIMO was not treated.
- Estimated level of completion; 50%, Estimated completion date; 09/2004 (TSG-RAN#25)

Rel-6 RAN improvements (1/3)

- **Remote Control of electrical antenna tilting (R3)**
  - **Completed:Definition of Requirements**
  - **Agreement on UTRAN Architecture for RET Control, Protocol Structure, General Interface Aspects and a series of new TSs 25.4xx for RET Control**
  - **Open issues:**
  - **Layer 1: RS 485 and/or Coaxial Cable, Data Rates as mandatory / optional, Modulation scheme for Coaxial Cable option**
  - **Layer 2: Client-Server Architecture for Link-oriented Interface?, HDLC connection-oriented or connection-less?, Device Scan Procedure needed?**
  - **Layer 7: Off-line discussions on some commands ongoing,Agreement on the final solution, preparing of the needed CRs and new specifications**
  - **Estimates of the level of completion:45 %**
  - **FCD?**

Rel-6 RAN improvements (2/3)

- **RAB support enhancement (R2)**
  - **Following contributions at RAN2#40 and RAN2#41, TR 25.862 has been updated with new text proposals on how to optimize the RABs for voice over IMS.**
    TR 25.862 "RAB support for IMS" v1.0.0 will be presented at TSG RAN#23 for information.
    Completion date unchanged (June 2004).
  - **Iu enhancements for IMS support in the RAN (R3)**
    - **The priority requirements have been discussed and revisited to take into account the varying nature of traffic that may be carried on the signalling RAB.**
    - **Open issues: RAN3 is still waiting for output of SA2/CN groups discussions on the open issue of varying traffic**
    - **Estimates of the level of completion: 25% (depends on other groups) FCD?**
- **Rel6 RRM optimization for Iur and Iub: (R3) Generic Building Block with the Work Task:**
  - **Improved access to UE measurement data for CRNC to support TDD RRM (R3)**
    - **Work completed, CRs to be presented at RAN#23**

Rel-6 RAN improvements (3/3)

- **Network Assisted Cell Change from UTRAN to GERAN – Network Side Aspects (R3)**
  - **Stage II work is largely completed. Substantial time was spent in meeting #41 discussing proposed Stage 3 CRs, without a conclusion.**
  - **Completed: NACC Architecture (local RNC based),Format of GERAN ó 3G RIM Messages,Transfer of NACC information across the Iu to the SRNC,The "trigger" for NACC information update - is it UE or RNC based.**
  - **Open issues:Choice of RNSAP message to be used across the Iur from the SRNC,Request message format from RNC to BSC (via CN) in order to subscribe to be informed at any NACC related change.**
  - **Estimated level of completion: 50%. FCD is June.**

- **Feasibility Study on the Evolution of the UTRAN Architecture (R3):**
  - **No complete elements**
  - **The number of open issues has increased for all proposals. There are no agreements in TR25.897**
  - **Estimates of the level of completion: 35 %, proposed completion date moved from RAN#23 to RAN#25**

Rel-6 RAN Work Items completed before TSG #23

- **Rel-6 improvements of Radio Interface**
  - **FDD Base Station Classification**
  - **Improved receiver performance requirements for FDD UE**
  - **UMTS 850**
  - **UMTS 800**
- **UE Positioning**
  - **Open interface between the SMLC and the SNR within the UTRAN to support Rel-4 positioning methods**
- **Rel-6 RAN improvements**
  - **Beamforming Enhancements**

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. Work completed. No outstanding issues for SA1**
- **SA2 work completion to be completed by November 2004 (postponed from June and twice before that). No contributions received, will not be part of R6 if there is not a dramatic change of priority.**
- **Stage 3 Completion date June 2005 (was last estimated for Sept/Dec 2004 and postponed twice before that).**
- **No action identified so far for GERAN and SA3.**
- **Dependencies from IETF, T3. RAN3 might be involved on priority.**

LCS enhancements 2 (1/2)

It consists of the following independent LCS-related improvements:

- **Improvement on Le interface**
- **Enhanced support for anonymity and user privacy**
- **Enhanced inter-GMLC interface**
- **Location Services support for IMS public identities**
- **New area event for location service triggering reports**
- **FS on applicability of GALILEO for LCS**

- **Stage 1 completed by SA1 at SA#20.**
- **Stage 2: all work completed by CRs on 23.271, except on Galileo, not progressing since May 2003. FS on Galileo can be shifted to later release if needed.**
- **Stage 3 not started by CN1 (no WID so far). Most aspects to be done by OMA. No RAN nor GERAN impacts foreseen for these aspects. OMA FCD needed.**
- **See also UTDOA in GERAN**

LCS enhancements 2 (2/2)

- **RAN aspects ("UE Positioning")**
  - **–UE Positioning Enhancements: Basket task.**
    - **"IPDL enhancement using advanced blanking methods" (R2): Open issues:**
      - **–Signalling support for Time aligning Idle Periods**
      - **–Performance comparison with standard IPDL. Under study in RAN1: R1-040209 was treated, but due to the large amount of data, it will would be discussed again at the next meeting. Additional feedback from RAN2 and RAN3 was expected**
      - **–Proposed Completion date: September 2004.**
  - **–A-GPS minimum performance specification (RAN4):**
    - **On progress, but slower than expected, June deadline will probably not be met. Lots of contributions and many new participants. FCD is September?**
    - **Agreement to create a separate TS, overview of the contents agreed.**
    - **Long discussions on the posibility of diverse classes, on the parameters of the tests, and on the assistance data for the tests.**

Security Enhancements Rel-6

- **Network domain security**
  - **NDS/IP: TS 33.210 under Change control, CRs to SA#23 . WI 95% complete**
  - **NDS/AF TS 33.310 (Application Framework): TS to be presented to SA#23 for approval. 90% Complete**
- **Key Management of group keys for Voice Group Call Services: ongoing – 50%. Still under discussion.**
  - **GERAN A/Gb mode security enhancements :**
    - **Ongoing work in SA3 to address the A5/2 problem. 43.020 is also affected and new algorithm specifications are introduced.**
  - **TS 55.226 (A5/4 – GEA4 Specification) to be presented to TSG SA#23 for information. This is a Rel-6 specification, but other specifications would need to be updated in order for this to be implemented. Expected for approval TSG SA#24. 90% Complete**
  - **G-MILENAGE Algorithm: completed at SA#18.**

IMS Phase 2 (1/3)

Different independent items:

- **Stages 1 & 2 completed (in resp. 22.228 and 23.228) for:**
  - **IMS Local services.**
    - **Stage 3: not started. No input but hot in the air.**
  - **Interworking between IMS and CS networks**
    - **Stage 3 in TS 29.163 approved at CN#21.**
    - **CN1 Stage 3 of interworking with non-IMS IP networks, June 2004.**
    - **Interworking IPv6 to IPv4 (SIP / SDP aspects) is a new task for CN1 to be completed in September 2004.**
  - **Mn interface (IM-MGW to MGCF) enhancements**
    - **Stage 3 in TS 29.332 (CN4): FCD is still June 2004**
    - **Stage 3 in TS 29.163 (CN3): Completed (March 2004)**
  - **Mp (MRFC - MRFP) interface protocol definitions**
    - **Target for Stage 3 in TS 29.333 (CN4): No progress since CN#20. FCD is still June 2004**

IMS Phase 2 (2/3)

- **Stages 1 and 2 completed for (contd):**
  - **Lawful Interception in the 3GPP Rel-6 architecture**
    - **90% Complete: Completion date is still June 2004**

- **Other Items:**
  - **Gq (PDF – P-CSCF) interface: see slide on QoS**
  - **IPv6/IPv4: IP v4-based IMS**
    - **WID on "Interworking aspects and migration scenarios for IPv4-based IMS Implementations" presented at SA#21. Corresponding TR to be presented for information at SA#23 and for approval at SA#24 (June 2004).#**
    - **Stage 3 expected in September (CN3).**
  - **Enhancements to Cx and Sh interfaces:**
    - **CRs on definition of public identities and sharing of public identities approved. Completion date is June (was March). New specification to coordinate Diameter-based interfaces within 3GPP.**
  - **IMS Group Management:**
    - **Stage 2 completed**
    - **Stage 3 to be completed by September 2004, 20% completed (was June 2004)**

IMS Phase 2 (3/3)

90% of Stage 2 completed and Corresponding stage 3 to be completed by:

September 2004 for IMS Conferencing (was June 2004), 75%.

September 2004 for IMS Messaging, 30%.

Additional SIP Capabilities support : 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. September 2004

See also new WID on Codec enhancements for PS conversational multimedia applications (SA4)

For IMS charging, strong dependency on IETF Diameter (see Charging slide)

Note: Stage 3 of IMS Phase 2 is closely dependent to the progress made by IETF

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

- **3GPP part of the work on "Commonality" and "Interoperability" done.**
- **Work expected to be done at 3GPP2 for "Interoperability".**

- **3GPP part closed in December 2003. Might be re-open according to inputs from 3GPP2 if needed.**

Push Services

- **Stage 1: Stable, in TS 22.174**
- **Stage 2: TR 23.976 presented for approval now at SA#23. 95 % complete, the only remaining issue is on NRPCA.**
- **Stage 3 not started. Not before June 2004.**

MMS (Multimedia Messaging Service) Enhancements (1/2)

- **Stage 1 done by SA1. Progress was made in two areas of Service requirements from SA1**
  - **Work required on Private addressing Schemes.**
  - **Clean up done on Prepaid and MMS targetting UE elements (SP-23)**
- **Stages 2 and 3 handled by T2 (except MM1 stage 3 handled by OMA)**
  - **MMS Online charging interfaced introduced**
  - **Support of Hyperlinks added**
  - **MM7 improvements introduced**
  - **Further work ongoing in the following and other areas:**
    - **Consider and accommodate the needs of IMS**
    - **Terminal capability negotiation enhancements**
    - **Charging transparency**
    - **Enhancements to MM1, MM4, MM7 reference points**
    - **Application ID in MMS**
    - **MM storage on USIM**
- **Completion date shifted to September 2004**
- **SA4 responsible for codec and media types. Work to be completed by September 2004.**
- **SA5 doing the charging (32.270). Requires T2's work stabilisation.**

MMS (Multimedia Messaging Service) Enhancements (2/2)

- **Two new WIDs (BBs) approved at TSG-T#22**
  - **Handling of private addressing schemes in MMS**
    - **A need for handling subscriber-specific, flexible addressing in MMS is identified. Examples for Services which need such subscriber-specific and flexible addressing are Virtual private Networks and Address Hunting Services, which make use of private numbering schemes.**
    - **Substantial input in T2, planned completion date June 2004**
  - **FS Multiple MMS Relay/Server Architecture**
    - **Intention is to analyse the impacts of multiple MMS Relay/Servers in one MMSE on the MMS Reference Architecture, and to investigate potential alternative architectures that support multiple MMS Relay/Servers within one MMSE which ensures backwards compatibility.**
    - **Draft TR presented to T2, planned completion date June 2004**

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 (SuM)

- TSG Approval target remains 06/2004.
- 32.140/32.141 SuM Requirements/Architecture – SA Approved.
- 32.171/2 (SuM resources IRP: Requirements / Network Resources Model).
  - SA Approval 03/2004 not met (Reason: unclear candidate for Stage 3 TS 32.173).
- 32.173 Protocols (IRP Solution Set) – SA Approval target remains 06/2004:
  1) GUP Stage 3 (provided it will be delivered on time) may be used for SuM IRP SSs.
  2) Looking for an SA5-internal back-up solution (32.6xy)

- Use Cases (UC) for SuM
  - Good progress => incorporating by CR the UCs in 32.140 & got a solid foundation for developing the Interface and NRM IRPs.
  - Completed UC methodology and moved it from 32.140 into a new TR 32.801 – for SA#23 Information

- Pending items:
  - WT1: IRP Network Resource Model 25%
  - WT6: TS 23.008 investigation 10%
  - WT7: GSM 12.02 investigation 10%
  - WT10: Investigate MMS for subscription data 0%
  - WT13: Interface IRP 20%
  - WT14: Investigate GUP for re-use as SuM Solution Set 50%

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: no input received (10%) since July 2003! Check supporting companies.**
- **SA4 work in TS 26.141 now foreseen to be completed by September 2004 (it was December 2003, then March 2004).**
- **CN1 work to be completed by September 2004 in a new TS (it was March 2004 and December 2003). CN5 completed. CN4 work completed in March.**

Multimedia Broadcast/Multicast Service (1/2)

- Stage 1 completed and stable in TS 22.146. Clean up on clarification on user requirements for notification of multicast sessions
- Overall Stage 2 (SA2) in TS 23.246 approved at SA#21, important CRs provided at this plenary.
- CN1 work is planned to be completed by September 2004 (it was December 2003, then March 2004, then June 2004).
- CN3 studying use of Radius or Diameter for Gmb interface. Diameter is the current working assumption. Also to be completed by September 2004 (was March then June).

- CN4 also involved. To be covered mainly by CRs on TS 29.060 (GTP).
- SA3 Security Work: Draft TS 33.246 MBMS Security was presented to SA#22 for information. 80% complete now.
  - Decision still to be made on use of Terminal and UICC-based solutions (based on security scenarios). E-mail discussions ongoing. Expected decision at SA3#33 (May 2004).
- LSs exchanged among a number of SA, GERAN, RAN WGs on multiple MBMS issues

Multimedia Broadcast/Multicast Service (2/2)

- **Support of MBMS in GERAN : 25% completed, FCD is still June 2004.**
- **Introduction of MBMS in RAN (R2):**
  - **TS 25.346 is presented for approval.**
  - **List of open issues:**
  - **In RAN1**
    - **Minimum bitrate supported by all MBMS capable UEs**
  - **In RAN2**
    - **Handling of URA_PCH state UEs in counting**
    - **Indication to read MCCH when UE is receiving MTCH, either in band on MTCH or on MICH, including MBMS scheduling information.**
  - **In RAN3**
    - **Handling URA_PCH state UE in counting, related to open issue in RAN2**
  - **FCD is still June?**

BB MBMS User Services

Now a BB under MBMS. Previously known as feature "Teleservices using MBMS"

- **Stage 1 approved in TS 22.246 at SA#22**
- **Stage 2 technical work completed: CRs on TS 23.246 in March 2004**
- **SA4 work:**
  - **WID Updated again in SP-030674 at SA#22. 25% completed. Realistic completion expected by December 2004 (maybe June 2004, by reducing the content of TS 26.346 – download and streaming aspects)**
  - **LS on Request for simulation parameters and/or error patterns for MBMS sent from SA4 to GERAN1, GERAN2, RAN1, RAN2, RAN3, Cc: SA2.**
  - **SA4 ad-hoc meeting on MBMS to be held (5-6 April 2004).**
- **The involvement of CN1, mentioned in the WID, has still to be checked.**

Speech Recognition and Speech Enabled Services

- **Stage 1:TR 22.977 and TS 22.243 on SES approved at SA #17.**
- **Stage 2: TR 23.877 for approval at SA#23 (March 2004).**
- **SA4 on Codec Work to Support Speech Recognition Framework for Automated Voice Services. The evaluation of SES codec candidates is now completed: Enhanced DSR is recommended for SES, use of AMR and AMR-WB is also possible (with reduced performance). TS 26.243 presented for information at SA#23 in March 2004, and expected to be presented for approval (with relevant CRs to TS 26.235 and TS 26.236) in June 2004. Status: 90% complete**
- **A new codec is defined, so CN1 need to be involved.**

Generic User Profile

Work ongoing

- **Stage 1: TS 22.242 approved**
- **Stage 2: TS 23.240 approved**
- **TS 23.241 (GUP, Stage 2, Data Description Framework) March 2004 (was December) and TS 24.241 (GUP, Stage 3, Access; Common Objects) September 2004 (was December 03 then June).**
- **Stage 3: Outline of draft TS 29.240 approved at CN4#19**
  - **Working assumptions agreed. Estimated completion 30%. TS 29.240 will be presented for approval at CN#24 in June (was March) 2004.**
- **GUP Security: expected completion April 2004: 20% Complete.**

- **CN5 involved in order to have OSA support of GUP. SA1 and SA2 inputs still needed for this.**

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 - LSs exchanged with SA4 on status of the PSS and 3GP file format specifications**
- **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.**
- **Results from OMA already available**

WLAN/UMTS interworking (1/2)

- **Stage 1: Decision taken to put all requirements into 22.234; CRs to remove requirements from SA1 specs (SP-23). Work is stable (based on FS in TR 22.934). Fine tuning in progress. Request WLAN WID be extended to Release 7.**
- **Stage 2 in TS 23.234. Presented for approval now, 95 % complete.**
- **SA5 work on WLAN charging (TS 32.252) awaiting for TS 23.234.**

WLAN/UMTS interworking (2/2)

- **CN1 is 70% completed. Planned completion is still June 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 70% June 2004 (was December 03 then March)**
- **CN3 involved for Wi interface, awaiting Stage 2 to be stable. CN3 to provide a new TS on Wi interface, to be completed by September**
- **T3 might also be involved (wait for Stage 2 to be stable)**
- **WLAN Interworking Security TS 33.234 was presented to TSG SA#22 for information. Presented to SA#23 for approval.**

Priority Service

- **FS completed: TR 22.950 approved at SA#16. CRs provided on existing specs.**
- **TR 22.952 on Priority service implementation guide approved at SA#22**
- **No Stage 2 and no stage 3 needed. The intent of this "Guide" is to describe how existing 3GPP specifications support the high-level requirements identified for Priority Service in TR 22.950.**
- **Work complete**

Network Sharing (1/2)

Work on-going.

- **FS in TR 22.951 approved at SA #18.**
- **Stage 1: Complete, covered by CRs.**
- **Stage 2: TR 23.851 for approval in March 2004 (was September, December). SA2 has decided that a new TS is needed, to be completed by June.**
- **Stage 3 started. Planned completion is September 2004 (was June 2004 and March 2004). A WID from CN1 is for approval in CN#23.**
- **SA5 still intends to include in 32.101 and 32.102 Network Sharing aspects relevant to OAM&P.**

Network Sharing (2/2)

- **Enhancement of the support of Network Sharing in the UTRAN, R2.**
  - **There were no objections for inserting multiple PLMN-IDs in the broadcast channel.**
  - **There was no objection for sending the Mobile Country Code only if it changes.**
  - **List of open issues:**
    - **Multiple PLMN selection functionality**
    - **Multiple PLMN selection based routing**
    - **Rerouting functionality**
  - **Completion date still June 2004 check**

QoS Improvements

This Feature consists in:

- FS on Dynamic Policy Control Enhancements for End-to-End QoS
  - Stage 2: propose to discontinue the FS and its associated TR 23.917.
  - Stage 3 (CN3): Draft TS 29.209 for “Policy control over Gq interface”. Studying different protocols (COPS, Diameter, XML). Estimated completion June 2004 (shifted to align to SA2 FCD). Stage 2 is 50% complete. Draft TS 29.209 (CN3): target completion date is still September 2004
- Policy-based control of DiffServ.
  - After realising that there is no more supporting company, SA2 propose to delete this WI.

Support for Subscriber Certificates

- **Stages 1 and 2 defined by SA3:**
  - **Draft TR 33.919 GAA; System Description. Was presented to SA#22 for information, not presented for approval at this time, dependent on the completion of the other specifications and will be completed later.**
  - **Draft TS 33.220 GAA; Generic Bootstrapping Architecture. Was presented to SA#22 for information. To be presented to SA#23 for approval.**
  - **Draft TS 33.221GAA; Support for Subscriber Certificates. To be presented to SA#23 for approval.**
  - **Draft TS 33.141 GAA/HTTPS. To be presented to SA#23 for information.**
- **Stage 3 started and CN wide WID is approved. A draft TS exists. Planned completion is September 2004 (was June 2004).**
- **SA1 and SA2 work done, T3 work not started [still?].**

OSA Improvements

- **CN5 (OSA Stage 3) have NO dependencies BUT overlaps with OMA**
- **SA1 re-submitted to SA#23 CR 22.127 to Introduce High Availability requirement for OSA Rel-6**
- **OSA requirements "clean up" was finished at TSG#22 (SA1 CRs 22.127 submitted to SA#23): (clean-up = deletion in WP of SA1 requirements inherited from Rel-5 and NOT supported in CN5)**

  Stage 1 requirements removed at TSG#22:
  - Management / User data security management
  - Access to IP Session information
  - Network functions for end-user/application interaction support
  - IP Session Control Function
- **Release 6 OSA Stage 3 completion progresses to 80%.**

- **Progress on individual items:**

  - **Completed:**
  - **Introduction of migration support mechanism**
  - **Framework Function for Federation**
  - **Policy management extensions**

  - **Ongoing:**
  - **Multi Media Messaging function (remains 50 %; No progress reflected in the specs)**
  - **Presence and Availability Management (50%: TS 100%, TR 0%; Depends on CN1 completion)**
  - **OSA interfaces at different levels of abstractions (29.199 Parlay X, Web services) (remains 90 %; No progress reflected in TSs)**

  - **Pending input from other WGs:**
  - **User Profile (0 % progress; Still Pending input from SA1/2)**
    Pending completion of GUP Stage 1/2, CN#22 agreed OSA Stage 3 completion in June 2004.
    Tasks: 1) SA1 need to derive the OSA Rel-6 Reqs. from the GUP Reqs.;
    2) SA2 need to perform architectural analysis of these Reqs.

Performance evaluation of multimedia codecs for PS conversational services

- **Status: 90% complete**
  - **Budget defined for Phase 1 of testing (of 160 kEURO)**
  - **Budget defined for Phase 2 (of 34 kEURO, contingency left from 3GPP AMR-WB exercise, fully authorized)**
  - **Phase 1 of testing completed and approved at SA#22 Phase 2 of testing including two more tests with more MM codecs and Global Analysis of all results completed**
  - **Approval of the work done is requested at SA#23 (for ETSI to pay the Phase 2 Host/Testing and Global Analysis Laboratories)**
  - **TR 26.935 v. 1.0.0 is presented for information at SA#23, expected to be approved in June 2004**

Privacy Capability

- **Input from OMA Requirements addressed**
- **Stage 1 ready for approval in 22.949 at SP-23**
- **No other work started. Check for supporting companies to start work on Stage 2.**

OAM&P (1/2)

Operation, Administration, Maintenance and Provisioning

- **TSG Approval target remains 06/2004 (but difficult to achieve).**
- **15 New specs for SA#23 Information / Approval**

- **BB: Principles, high level Requirements & Architecture (03/04 delayed 06/04)**
  Pending items: Subscription Management (Service Operations Management Framework), Management of Service Specific Entities, Impact of Emergency Call Enhancements, Impact of WLAN Interworking, Study of Presence Service Specification.

- **BB: Network Infrastructure Management (03/04 delayed 06/04)**
  Pending items: missing contributions in several areas jeopardize some Rel-6 WTs

- **BB: Performance Management (PM) (03/04 delayed 06/04)**
  Pending items: Inventory Management IRP, ATM-UTRAN Interface Management XML Reconciliation, Measurement Job Administration Performance Threshold Management

OAM&P (2/2)

- **BB: Subscriber and Equipment Trace Management (target remains 06/04)**
  Pending items: Trace Control and Configuration Management, Trace Data Definition and Management, Trace Impacts on Network Signalling Interfaces, GSM Trace.
  - **CN4 is bringing a CN wide WID to CN#23 for approval on Tracing**
  - **32.422 still waiting for UTRAN parts from RAN3 and IMS parts from CN1.**
  - **32.422 GERAN parts are FFS. Rel-6 inclusion of GERAN parts unclear.**
  - **CN1 started the task 'SIP enhancements for trace' planned completed in December 2004.**
  - **In UTRAN:**
    - **Remaining open issues on the two solutions for Management-based Activation mechanism were closed.**
    - **Description of the solution 2 for Management-based was agreed to be modified to reflect the actual Rel6 solution.**
    - **Decision on the solution still to be made in RAN3.**
    - **Estimates of the level of completion: 60 %**
    - **FCD moved to June 04 (was March)**

Charging Management

- TSG Approval target delayed from 03/2004 to 06/2004
- 5 New TSs for SA#23 Information / Approval
- Depending on IETF's Diameter Credit Control application (IMS & WLAN Charging)
- Depending on SA2 (WLAN Charging, IP Flow Based Bearer Charging)
- Depending on SA1, SA2, CNx (Enhancements to IMS charging)
- Depending on T2 (MMS charging; which was moved to 09/2004)
- Depending on service specification work split resolution 3GPP vs. OMA (Presence, Messaging, PoC). Some stability of the stages ½ is first needed.
- OMA M-Commerce & Charging (MCC) WG
  - SA5 SWGB chair now participating in OMA MCC (Mobile Commerce and Charging|.
  - 3GPP SA5 representation received enthusiastically.
  - Problem: all OMA meetings in 2H2004 clash with SA5 meetings.
  - Looking for co-locating SA5 SWGB meetings with OMA MCC.

- IP Flow Based Bearer Charging
  - SA2 has transformed the TR into a TS. This TS is sent for approval now but still some cat B CRs are expected until June.
  - SA5 analysed SA2's TR 23.825. Especially for GPRS, it was discussed how to add IP flow charging to the existing charging functionality in SA5 specs.
  - IPFIX and Diameter were proposed as protocol solutions for IP flow charging.
  - SA2 started a new TS for IP flow charging that will specify the "non-charging network enhancements". This TS will subsequently be analysed by SA5 in order to obtain further input for the SA5 specs.

UICC/USIM enhancements and interworking for Rel-6

USIM toolkit enhancements

- **TR 31.919 "2G/3G Java Card™ API based applet interworking"** is approved by T3 and forwarded to T#23 for approval.
- **TS 31.130 v 2.0.0 (U)SIM API for Java Card™ was approved by T3 and forwarded to T#23 for approval.**

Note:

Common UICC enhancement are specified by ETSI Project Smart Card Platform EP SCP (including 3rd form factor and UICC next generation). Decision on 3rd form factor has been reached in SCP#16. T3 has updated TS 21.111 with respect to the third form factor which has been been introduced by EP SCP (CR sent to T#23 for approval).

- **WIDs approved by T3 and forwarded to TSG T#23 for approval:**

- **TP-040033:** USSD message transfer to USIM. **The objectives are to specify the the stage 3 technical requirements for USSD message delivery and transfer to the USIM and to identify secure mechanisms that will enable all use cases to be satisfied**
- **TP-040032:** Test specification for (U)SIM API for Java Card ™

  A test specification for the 3GPP TS 31.130 REL-6 "(U)SIM API for Java Card™" would validate implementation of the (U)SIM API on a UICC platform.

Packet Switched Streaming Rel-6 (1/2)

- **Stage 1 completed in 22.233**
- **New set of enhancements on PSS approved at SA #18.**
- **SA4 has restructured the whole set of main specifications for PSS Rel-6 (TS 26.244 is presented for approval at SA#23, TS 26.245 still in draft version, TS 26.246 presented for information at SA#22)**

Completion in SA4 expected by September 2004 (it was March);
Status: roughly 75% completed

Codecs selection in March 2004 :

PSS/MMS video codec :

H.264/AVC proposed as optional decoder for MMS, PSS and PSC

PSS/MMS Audio codec: see separate slide

Packet Switched Streaming Rel-6 (2/2)

Audio Codec

- **Competition for Lower and Higher Bit Rate Audio Codec approved at SA #19**
- **Design Constraints and Performance Requirements COMPLETED**
- **Subjective tests and Global Analysis COMPLETED**
- **Approval of the work done is requested at SA#23 (for ETSI to pay the Phase 2 Host/Testing and Global Analysis Laboratories)**
- **PSS/MMS Audio Codecs: Extended AMR-WB (AMR-WB+) and Enhanced aacPlus both to be recommended**
- **Verification phase to be completed**

FCD June 2004 (it was March 2004)

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

- **SA4 work on AMR-WB+ FCD June 2004 (was December 03 and then March 2004)**
- **Status: 75% COMPLETE**
- **CN1 assumed not to be involved. Supporting Companies to check impacts on CN1**

NEW WIs for approval at SA#23

- **SA4: Codec Enhancements for Packet Switched Conversational Multimedia Applications**
- **SA4: 3G-324M Improvements**
- **SA2: Access Class Barring and Overload Protection**
  - **SA2 Completion date set to June**
- **SA2: Combining CS bearers with IMS**
  - **SA2 Completion date set to September**

CAMEL

- **TS 23.078 v6.0.0 and TS 29.078 v6.0.0 for CAMEL4 in Rel-6 are created**
- **WID "CAMEL prepay interworking with SCUDIF" (SCCAMEL) was approved in CN#22. Related CRs are approved by CN2 and fowarded to CN#23 for approval. The work on Rel-6 WI SCCAMEL can be marked as completed.**
- **CRs for CAMEL stage1 22.078 based on input from CN2**
- **CRs for CAMEL stage 1 22.078 for Rel-7 (SP-23)**

BARS

In full: Bandwidth and Resource savings and Speech Quality enhancements

- **Stage 2 TR 23.977 is still to be completed by June.**
- **No information on Stage 3 nor on SA4 impacts at the moment**
- **No Stage 1 required**
- **This is a Feasibility Study and is not relevant for deciding the completion date of Release 6**

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

- **Check if independent Feature or BB under IMS 2.**
- **Results from OMA have been reviewed by SA1: no input is required.**
- **Clarify how Stage 1 is to be documented.**
- **WID approved at SA#21. Impacts on TS 23.228 foreseen.**
- **Time schedule for SA2: June for information and approval (missing info on Stage 1). Dependant on stable input from OMA.**
- **No work ongoing on Stage 3 at the moment. Awaiting Stage 2 to be progressed. Not before September 2004.**

Tdoc TP-040006

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

- **Draft TR 33.817: Feasibility Study on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces was provided for Information to SA#22. To be presented to SA#23 for approval.**

GERAN Rel-6 1/2

Features:

- **Addition of frequency bands to GSM : COMPLETED**
- **Multiple TBF in A/Gb mode : COMPLETED**
- **Seamless support of streaming services in A/Gb mode: COMPLETED**
- **Flexible Layer One for GERAN: BBs are 80% to 100% ready, FCD April 2004 (it was November 2003, then February 2004)**
- **FS on Single Antenna Receiver Interference Cancellation (SAIC): 80% ready, FCD April 2004 (it was November 2003, then February 2004)**
- **Support of Conversational Services in A/Gb mode via the PS domain: TR ready, FCD August 2004**
- **Alignment between the test-regimes for GERAN capable MS : 80% ready, FCD April 2004**
- **Uplink TDOA location determination for GSM/GPRS: WI deleted and replaced at GERAN#17 (see next slide)**

GERAN Rel-6 2/2

Feasibility studies:

- **Enhanced A/Gb feasibility study COMPLETED**
- **Uplink TDOA feasibility study COMPLETED**
  - **Uplink TDOA location determination for GSM, CS domain: 90% ready, FCD April 2004**
  - **Uplink TDOA location determination for GPRS, PS domain: 5% ready, FCD November 2004**
  - **Advanced Receiver Performance (ARP): 5% to 40% ready, FCD June 2004**
  - **Reduction of PS service interruption in Dual Transfer Mode: study of use cases ready, FCD June 2004**

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**
- **Radio optimisation impacts on PS domain architecture deleted at SA#21**
- **Improvements of RRM across RNS and RNS/BSS deleted at TSG #21 due to lack of progress**
- **SI on Enhancements of OTDOA positioning using Advanced Blanking Methods. Further work in the area to be done under UE positioning Enhancements (generic WI)**
- **Feature Interaction, deleted at SA#21**
- **Enhanced HE control of security**

Conclusion

Completion dates

- **Next slides summarize the status of each Feature.**
- **An "X" means the work has been completed. If not completed, the Foreseen Completion Dates (FCD) is given, in terms of TSG#:**
  - **(TSG #) 24: June 2004**
  - **(TSG #) 25: September 2004**
- **"EXT" means that an external forum is involved**
- **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**

FCD of Features sorted by FCD (1/3)

UID	*Feature*	FCD
33002	Support for subscriber certificates	X
50401	Addition of frequency bands to GSM	X
50130	Seamless support of streaming services in A/Gb mode	X
1800	Rel-6 UICC/USIM enhancements and interworking	X
12006	Enhancement of dialled service for CAMEL	X
50600	Multiple TBF in A/Gb mode	X
1216	Improvements of Radio Interface	X+24
32021	IMS Phase 2	X+24+25
15010	Rel-6 OSA enhancements	X+24+25
9	RAN improvements	X+24+25?
1571	Security enhancements	24
2062	Subscription Management	24
50063	Flexible Layer One for GERAN	24
31006	Speech Recognition and Speech Enabled Services	24

FCD of Features sorted by FCD (2/3)

UID	*Feature*	FCD
31012	WLAN-UMTS Interworking	24
34300	Performance characterisation of default codecs for PS conversatio	24
35016	Charging Management	24
34023	AMR-WB extension for high audio quality	24
50444	Addition of U-TDOA in the CS domain	24
1365	Support of Push Services	24/25
35010	OAM&P	24/25
2468	Multiple Input Multiple Output antennas (MIMO)	25
42009	Multimedia Messaging (MMS) enhancements	25
2499	Support of Presence Capability	25
2544	Multimedia Broadcast and Multicast Service	25
31008	Generic User Profile	25
31018	Network Sharing	25
34022	Packet Switched Streaming Services Rel-6	25
50500	Support of Conversational Services in A/Gb mode via the PS doma	25
50445	Addition of U-TDOA in the PS domain	25

FCD of Features sorted by FCD (3/3)

UID	*Feature*	FCD
32060	Bandwidth and resource savings in CS networks	25?
32045	PS domain and IMS impacts for supporting IMS Emergency calls	28
32023	Location Services enhancements 2	EXT
32063	3GPP Enablers for services like Push to Talk over Cellular (PoC)	EXT
11032	Interoperability and Commonality between IMS using different "IP	EXT
31010	Digital Rights Management	EXT
2	Evolutions of the transport in the UTRAN	NR
32062	Interworking aspects and migration scenarios for IPv4 based IMS I	NR
42005	Rel-6 MExE enhancements	NR
50056	Enhanced A/Gb feasibility study	NR
50041	Uplink TDOA feasibility study	NR
31015	Priority Service	NR
32016	QoS Improvements	NR
31030	Study on Privacy Capability	NR
51101	Single Antenna Receiver Interference Cancellation (SAIC)	NR
33018	FS on (U)SIM Security Reuse by Peripheral Devices on Local Interf	NR
50096	Alignment between the test-regimes for GERAN capable MS	NR
50101	Advanced Receiver Performance	NR
50109	Reduction of PS service interruption in Dual Transfer Mode	NR

Conclusion

- **The Foreseen Completion Dates are not yet stable: many have slipped since the previous plenary.**
- **This includes some essential features that have been shifted from June to September 2004.**