Review of the Work Plan at Plenaries #20

This version includes the updates from TSG #20

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

UE testing R99 (1/2)

- **90% of prose test cases updated to March 03 core specifications.**

- **50 new TTCN test cases presented for approval at this meeting**

UE testing R99 (2/2)

- **Ongoing activities (% complete, foreseen completion date):**
  - *Extensions to R99 Test cases (SIG, covers the completion of FDD prose and TTCN)* **(75%, Dec 03 for prose; 55%, Mar 04 for TTCN)**
  - *Maintenance of the R99 test specification and test cases (SIG)* **(90% ongoing for prose; 40% ongoing for TTCN)**
  - *Creation of the Release 99 TCs for TDD, prose and TTCN (SIG)* **(55%, July 04 for prose; 0%, Dec 04 for TTCN)**

UE Testing Rel-4 (1/2)

- **Not started** yet:
  - *Testing of RAB support for RoHC (Sep 03 for prose; March 04 for TTCN)*
  - *General changes to TS34.121 for Rel-4 (March 04)*

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UE Testing Rel-4 (2/2)

- **Ongoing activities (% complete, foreseen completion date):**
    - *LCR_TDD, Testing Layer 2 and 3 protocol aspects (SIG)* **(60%, July 03 for prose; 0% Dec 03 for TTCN)**
    - *Testing of Extended RoHC* **(15% Sept 03 for prose; 0% Dec 03 for TTCN)**

UE Testing Release Independent

- **Ongoing activities:**
  - **Optimisation of Test Time, RF Aspects (FDD and TDD) (80% for FDD, 70% for TDD, Sep 03)**

- **For approval:**
  - **Terminal Conformance Specification of Radio Transmission and Reception for DS-CDMA Introduction in the 800 MHz Band (Dec 03)**

UE Testing Rel-5 (1/2)

- **Ongoing** **activities:**

  - *Testing of support for IMS* *(20%, Sep 03 for prose, March 04 for TTCN)*

  - **General changes to TS 34.121 and TS 34.122 for Rel-5** *(5%, March 04)*

UE Testing Rel-5 (2/2)

WI under study and seeking supporting companies (no change since TSG T#14)

- Improvements of Radio Interface

  - Testing improvement of inter-frequency and inter-system measurement

  - *Clarified at TSG #19 that no work done in Rel-5 for:*

    - *Testing Hybrid ARQ II/III*

    - *Testing Terminal Power saving features*

    - *Testing DSCH power control improvement in soft handover*

  So no testing work to be performed for these items.

- 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)

GERAN UE Testing

- **MS conformance test for Intra BSC NACC (Rel-4): 85% (*)**

- **Not started yet (Rel-5) :**

  - *GERAN MS Conformance test for GERAN interface evolution (completion expected by April 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 (*)*

  - *GERAN MS Conformance test for LCS (work plan 60% , completion expected by June 2003)*

  - *GERAN MS testing for Multiple TBF in A/Gb mode (*)*

  (*) 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* *(*)*
  - *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 : 0%, completion expected by November 2003

• **GERAN MS/BTS Conformance tests for the Flexible Layer One : 0 %, completion expected by November 2003**

• **Seamless support of streaming services in A/Gb mode : 0 %, completion expected by December 2003**

• **Addition of frequency bands to GSM – Conformance tests : 0%, completion expected by August 2003**

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

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

High Speed Downlink Packet Access

COMPLETED at RAN#20.

Extended Transparent Packet Switched Streaming Services

STILL On-going :

TR 26.937 version 1.5.0 "RTP Usage Model" Release 5 (almost ready; it is hoped that this TR will be completed by September 2003).

(was hoped to be completed by June 2003 in March).

GERAN Rel-5

GERAN Incomplete Work Items for Release 5 (status update)

- **Multiple TBF A/Gb mode 65% ready, *completion expected by August 2003, except MS conformance tests (expected to be completed by November 2003)***

Messaging Enhancements: MMS Rel-5

- **MMS (Multimedia Messaging Service) enhancements**

  3GPP part completed at TSG-T#16 but

  - **Still Open item: MM1 (interface MMS User Agent and MMS Server/Relay) stage 3, under development in OMA.**

Review of on-going features

Will belong to Rel-6 or to Rel-7

List of on-going Features (1/3)

Unique ID	Feature
2	Evolutions of the transport in the UTRAN
2468	Multiple Input Multiple Output antennas (MIMO)
1216	Improvements of Radio Interface
9	RAN improvements
32045	PS domain and IMS impacts for supporting IMS Emergency calls
32023	Location Services enhancements 2
50541	Uplink TDOA location determination for GSM/GPRS
1800	Rel-6 UICC/USIM enhancements and interworking
1571	Security enhancements
32021	IMS Phase 2
32015	Radio optimisation impacts on PS domain architecture
11032	Interop & Comlity for IMSs using difft "IPconvity Networks"
1365	Support of Push Services
42009	Multimedia Messaging (MMS) enhancements

List of on-going Features (2/3)

Unique ID	Feature
42005	**Rel-6 MExE enhancements**
2062	**Subscription Management**
2499	**Support of Presence Capability**
2544	**Multimedia Broadcast and Multicast Service**
31006	**Speech Recognition and Speech Enabled Services**
31008	**Generic User Profile**
31010	**Digital Rights Management**
31012	**WLAN-UMTS Interworking**
31015	**Priority Service**
31018	**Network Sharing**
32016	**QoS Improvements**
33002	**Support for subscriber certificates**
15010	**Rel-6 OSA enhancements**
32033	**Handling of early UEs**

List of on-going Features (3/3)

Unique ID	Feature
34300	Perf charact of def codecs for PS conv multimedia appli
31029	Study of Feature Interactions Requirements
31030	Study on Privacy Capability
35010	Rel-6 OAM&P
35016	Charging Management
34022	Packet Switched Streaming Services Rel-6
12006	Enhancement of dialled service for CAMEL
34023	AMR-WB extension for high audio quality
50063	Flexible Layer One for GERAN
50401	Addition of frequency bands to GSM
50130	Seamless support of streaming services in A/Gb mode
51101	Single Antenna Receiver Interference Cancellation (SAIC)
50500	Support of Conv Services in A/Gb mode via the PS domain
33017	Network Domain Security; Authentication Framework (NDS/AF)

Evolutions of the transport in UTRAN

– **Not much activity in the previous months, but this feature should be kept in the Work Plan as work is to be done in the field of inter-working between IP and ATM following completion of a study item where different solutions are under study . This might be pushed off Release 6**

Rel-6 Improvements of Radio Interface

– **Improvement of inter-frequency and inter-system measurement (R1). In progress. Proposed Completion Date is left open**

– **Multiple Input Multiple Output antennas (MIMO) (R1):On progress. Joint discussion with 3GPP2 is finished. The work is now split in different Work Tasks for each of the RAN WGs. Completion date for the Work Tasks March 2004 for RAN1, RAN2 and RAN3 aspects and December 2004 for RAN4.**

– **Improving Receiver Performance Requirements for the FDD UE (R4). Current completion date is December 2003, but if further work is presented at next RAN4, the completion date might be changed.**

– **UMTS 850. Work started. (R4) 25% progress, Completion date March 2004.**

– **UMTS 800. Work started. (R4) 25%progress, Completion date September 2003**

– **UMTS 1.7/2.1GHz Work Started. (R4) 10% progress, Completion date December 2003**

Rel-6 Improvements of Radio Interface.
Feasibility Studies

–Radio link performance enhancements (R1): In progress. Completion date March 2004

–Improvement of inter-frequency and inter-system measurements for 1.28 Mcps TDD (R1) Work in progress. Completion date delayed from March to September 2003

–Deployment of UTRA in additional spectrum arrangements (R4). Completed during this meeting

–UTRA Wide Band Distribution Systems (R4) Work on going, new simulations presented. Completion date delayed from September 2003 to March 2004

Rel-6 Improvements of Radio Interface.
Feasibility Studies

- **Analysis of higher chip rates for UTRAN TDD evolution (R1) In progress. Completion date December 2003**

- **Uplink Enhancements for Dedicated Transport Channels (R1) Work in progress. Traffic models to be used were agreed in principle. Completion date December 2003**

- **OFDM analysis for UTRAN evolution (R1) Work on progress 40% complete. Completion date December 2003**

- **Low Output powers for FDD BSs (R4) Work Progress 10% complete. Completion date December 2003**

RAN improvements – Rel-6

- **Beamforming Enhancements (R1) On progress. Completion date changed from June 2003 to September 2003**

- **Network Assisted Cell Change (R3) Progress 10%. Completion change from September 2003 to December 2003.**

- **Remote Control of electrical antenna tilting (R3) Progress 5%. Completion December 2003.**

- **RAB support enhancement (R2): Generic Building Block. New item identified in this BB: Iu enhancements for IMS support in the RAN. The WI proposed to refine the requirements provided by SA2 from a RAN perspective and evaluate possible enhancements for Rel-6 allowing further optimisation of the handling of IMS RABs by RAN RNC. Completion date change from September 2003 to March 2004.**

- **Improvement of RRM across RNS and RNS/BSS (R3):**
  - **No progress on the level of completion: 35%, completion date December 2003**

RAN improvements - Feasibility Studies

- **Evolution of the UTRAN Architecture (R3):**
  - **Level of completion: 5%, Completion date changed from September to December 2003**

- **Improved access to UE measurement data for CRNC to support TDD RRM (R3):**
  - **Remaining work is to draw final choice in between the 3 solutions**
  - **Completion date changed: RAN #21, September 2003**

PS domain and IMS impacts for supporting IMS Emergency calls

- **Service requirements for CS domain already in TS 22.101. Requirements for IMS aspects included in TS 22.228 at SA#20.**

- **SA2 work completion to be completed by September 2003 (was moved from April to March at TSG#19)**

- **Stage 3 Completion date December 2003.**

- **For TSG CN#20 has approved a revised integrated WID provided by CN for UEs with and without UICC/(U)SIM in Networks containing an IMS.**

LCS enhancements 2 (1/3)

It consists of several independent LCS-related improvements

- **Stage 1 completed by SA1 at SA#20,**

- **Stage 2 progressing, planned to be finished by September 2003**

- **Stage 3 not started by CN1. Most aspects to be done by CN1, some other aspects to be done by external bodies, 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:**
    - **Date changed from June 2003 to September 2003**
    - **No progress in between**
    - **Situation to be reviewed at the next meeting. If no progress is reported the Work Item will be deleted**
  - **Open SMLC-SRNC Interface within the UTRAN to support Rel4 positioning (R2): 95 % completed. Foreseen Completion Sate is September (was March then June)**

Uplink TDOA location determination for GSM/GPRS

- **Addition of U-TDOA in the CS domain: 25% completed, to be completed by June 2003**
- **Addition of U-TDOA in the PS domain: not started, to be completed by November 2003**

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 on schedule. Foreseen to be completed at T#21**

UICC enhancements

– **Common UICC enhancement are specified by ETSI Project Smart Card Platform (including 3rd form factor and UICC next generation).**

Security Enhancements Rel-6

- **Network domain security**
    - **NDS/IP (33.210): Approved SA#18. "F" CRs to SA#19**
    - **NDS/AP: WID presented to SA#19. Completion for 03/2004**
    - **GERAN A/Gb mode security enhancements :**
        - **Progress and LS to GERAN from S3#27. Completion for 09/2003**
    - **G-MILENAGE Algorithm: completed at SA#18.**
    - **Proposal for backup Auth and Conf Alg UEA2/UIA2: Funding request and work plan to SA#19**

IMS Phase 2 (1/2)

- **Different independent items:**

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

  – **IMS Local services.**
    - **Stage 3: nothing started**

  – **Mm interface (CSCF to external IP multimedia network)**
    - **Stage 3 (TR 29.962) completed by CN3 at CN#20, to be 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 completed in September 2003 by CN3.**

  – **Mn interface (IM-MGW to MGCF) enhancements**
    - **Target for Stage 3 in TS 29.332 (CN4): December 2003**

  – **Mp (MRFC - MRFP) interface protocol definitions**
    - **Target for Stage 3 in TS 29.333 (CN4): December 2003**

IMS Phase 2 (2/2)

Stages 1 and 2 completed for (contd):

- **Lawful Interception in the 3GPP Rel-6 architecture**
  - **WID approved at SA#19. Completion date is December 2003**

CN#19 view is that Stage 3 will be completed by December 2003 but this is closely dependent to the progress made by IETF (Note that September 2003 is still in the Work Plan because SA2's updates were received too late for being reviewed by the CN WGs)

- **IPv6/IPv4**
  - **principle of interworking with external IPv4 networks approved at SA2. Work progressing at SA2. Work from IETF v6ops Drafts also to be considered.**

80% of Stage 2 completed and Corresponding stage 3 to be completed by September for the following items:

- **IMS Group Management**
- **IMS Conferencing**
- **IMS Messaging**
- **Additional SIP Capabilities support not covered by Rel-5**
- **Review additional SIP Capabilities against IMS**

Radio optimisation impacts on PS domain architecture

– **Only SA2 involved so far. Still no document started.**

– **Concrete impacts on the system still not clear.**

– **It will be checked whether this item has to be deleted or not before next plenary.**

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

– **Stage 2 progressing, to be completed by September 2003 (was March then June 2003).**

– **Stage 3 started, but actual split of the TS (between bearer dependent and independent aspects) not started. Foreseen to be completed by December 2003 (was September).**

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#20):**
  - **Consider and accommodate the needs of IMS**
  - **Support for enhanced charging methods**
  - **Interworking and transcoding enhancements**
  - **Terminal capability negotiation enhancements**
  - **Support for detailed description of User Profile mechanisms**
  - **Security and privacy enhancements**
  - **Enhancements to MM1 and MM4 reference points**
  - **Enhancements for streaming**
- **The following enhancements have been completed so far:**
  - **Support of Digital Rights Management for MMS**
  - **Support of Over-The-Air provisioning of MMS parameters**
- **Completion date not before Dec 2003, possibly March 2004. Work performed in cooperation with OMA** No change since T#19

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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. It should then not be reported as a feature.

Subscription Management

SA5 Rel-6 Feature: Subscription Management (SM)   50%

- Request to SA to accept delaying TSG Approval target: 09/03 to 03/04.
- The reason for delay is slower than anticipated progress with GUP co-ordination and Use Case analysis.

Specification overview/status:

- 32.140 SM Requirements - SA#19 Approved
- 32.141 SM Architecture - SA#19 Information; Approval target 09/03 to 12/03.
- 32.171 Service Operations Management (SOM): SM Resources IRP: Requirements - target 09/03 to 12/03.
- 32.172 SOM; SM Resources IRP: Network Resource Model - target 09/03 to 12/03.
- 32.173 Protocols (IRP Solution Set) - target: 09/03 to 03/04.

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

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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: new WID presented for approval in SP-030212 (for Presence, and for IMS messaging as well)**
- **SA4 work foreseen to be completed by December 2003**
- **Stage 3 in the CN defined by CN1 and CN5, to be completed by December 2003.**

Multimedia Broadcast/Multicast Service (1/2)

- **Stage 1 completed (in TS 22.146)**

- **Overall Stage 2 (SA2) in TS 23.246 is presented to SA#20 for information, to be completed by September 2003**

- **Stage 3 in the CN is planned for December 2003 according to the WID.**

- **Introduction of MBMS in RAN (R2): Progress 20%. Completion date changed from September 2003 to March 2004**

Multimedia Broadcast/Multicast Service (2/2)

- **Support of MBMS in GERAN : 10%, completion expected by November 2003.**

- **Support of MBMS in SA4 : a new WID presented for approval in SP-030213 (completion expected 6 months after Stage 2, i.e. March 04)**

- **Work ongoing in SA3. Draft MBMS Security updated at S3#27 (50% complete)**

Speech Recognition and Speech Enabled Services

- **Stage 1:TR 22.977 and TS 22.243 on SES approved at SA #17. Minor changes ongoing.**

- **Stage 2 : No WID approved yet. No technical work started.**

- **Work ongoing in SA4, Completion in SA4 expected by December 03 for SA4 aspects.**

- **WID SA4 on Codec Work to Support Speech Recognition Framework for Automated Voice Services approved at SA #18**

  - **Design Constraints, Test and Processing Plan, Time scale DEFINED in SA4**

  - **Selection criteria STILL TO BE DEFINED**

Generic User Profile

Work ongoing

- **Stage 1: 22.242 planned to be presented for approval at SA#19**

- **Stage 2: TS 23.240 GUP 2.0.0 for approval to SA plenary, 3 months ahead schedule**

- **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 December 2003.**

- **Stage 3: Outline of draft TS 29.240 approved at CN4#19**
  - **Further development awaits the maturity of the stage 2.**
  - **Estimated completion 5%. 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**

- **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

- **Stage 1: covered by CRs on existing specs (22.101, 22.115). Work is stable (based on FS in TR 22.934).**

- **Stage 2 in TS 23.234 on WLAN Interworking Architecture Definition provided again for information (and not for approval as originally planned). Planned to be completed in September (was March and then June).**

- **Draft Security TS updated at S3#27 (50% complete). Still many issues.**

- **Stage 3 started with a TS skeleton, will be led by CN4 (CN1 also involved): WID approved at CN#19 (Dec 03).**

- **CN1 may develop another TS for authentication and PLMN selection**

- **Stage 3 Outline of draft TS approved at CN4#19**
  - **Technical contributions approved at CN4 #19.**
  - **6 months anticipated for completion, i.e. Dec 03/March 04.**

- **T3 might also be involved (wait for Stage 2 to be stable)** 48

Priority Service

- **FS completed: TR 22.950 approved at SA#16. CRs provided on existing specs.**

- **TR 22.952 on Priority service implementation guide started. This TR will enable to conclude if more CRs are needed to cover this feature.**

- **CN4 expecting more guidance from SA1.**

- **Foreseen completion date is December 2003.**

Network Sharing

Work on-going.

- **FS in TR 22.951 approved at SA #18.**

- **Stage 1: covered by CRs on existing specs (22.011, 22.101, 22.115 and 22.129).**

- **Stage 2: TR will be presented for information in September and may be completed in December 2003 (was September at SA#19).**

- **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 2004 or June 2004 (WID to be updated)**

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. Intended completion date is now SA#21 (was SA#20). Technical work ongoing at SA2.**

  - **Stage 3 (CN3): Awaiting clarifications from SA2. If 3 to 6 months are needed after Stage 2 is stable, this will lead to March 2004 (was September/December at SA#19)**

  - **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**

Support for Subscriber Certificates

Progressing in SA3: Draft TS Table of Contents for "Bootstrapping and Support for Subscriber Certificates" and contributions to progress work at S3#27 (10% complete)

Stages 1, 2 and 3 defined by SA3. Draft TS to be presented for information at SA#21.

- **TR in progress (Active contribution at SA3#25 and SA3#26). Presented for information at SA#19.**

SA1 and SA2 work done, T3 work not started

OSA Improvements (1/2)

Rel-6 Feature OSA enhancements   30%

- TSG Approval for Stage 3 remains 12/2003 (synch with Parlay 5.0).

- 3GPP2 OSA Rel-5 out for publication as both TIA and 3GPP2 specs.

- *OSA Framework* provides Access Control and Integrity Management; work ongoing to enhance Integrity Management & support of high-availability Applications.

- *OSA Policy Management* enhancements approved by CN#20.

- *Java code* will be included in 3GPP specs from Rel-5 onwards. It will include a Java realisation of the APIs together with the rules to generate them from the UML specs. CR for inclusion approved by CN#20.

- *OSA Presence Stage 3* ongoing (resulting from gap analysis OSA Rel-5 PAM vs. Rel-6 Presence reqs). Work on SIP mapping pending Rel-6 Presence Stage 3 (CN1). CN1 identified dependencies on the IETF for SIP enhancements & until this work is completed CN1 cannot finish its work.
Impact on CN5 29.198-14 Presence & Availability Management unclear.

- *Access-independence:* slow progress in CN1. TS 23.218 monitored by CN5: any change may need to be reflected in OSA specs. SA2 working on a Rel-6 TR for IMS Commonality and Interoperability. Until SA2 work is further advanced, further changes of CN specs is unlikely.

OSA Improvements (2/2)

Most issues are solved now, some pending responses from SA2.

Working on Rel6 according to SA1 OSA Requirements:

- **Policy management extensions**
- **Presence and Availability Management**
- **OSA interfaces at different levels of abstractions (Parlay X, Web services)**
- **Introduction of migration support mechanism**
- **Framework Function for Federation**
- **Management / User data security management**
- **Access to IP Session information**
- **Multi Media Messaging function**
- **User Profile**
- **Retrieval of Visited Network capabilities - SA1 re-evaluate**
- **Enhanced user privacy in LCS - SA1 re-evaluate**
- **Network functions for end-user/application interaction support - SA1 re-evaluate**
- **IP Session Control Function - SA1 may delete**

Legend
Ongoing
pending input from other WGs
no contributions received

Other comment on OSA: there is a structural problem to defined OSA stage 2: Whereas Stage 1 is defined by SA1_OSA and Stage 3 is defined by CN5, there is no corresponding group for Stage 2. This is causing problems for definition of OSA for GUP and OSA for MMS.

Handling of Early UEs

Or *Provision of UE Specific Behaviour Information to Network Entities*

– **No Stage 1 needed (this feature just enables to have a normal behavior of the system)**

– **Stage 2 in TS 23.195 presented for approval. Completed.**

– **RAN aspects:**

- **RAN #18agreed on the "Early Hooks on the Air Interface" solution and approved the CRs defining the containers for the SBI (Specific Behaviour Information) IEs (Information Element), to be used when the need arises. Remaining open issues (e.g. on the contents of the UESBI) solved at RAN#19, so RAN work is completed.**

– **Impact on CN is made in CRs to Rel-5 specifications provided to CN#20. Two sets of CRs ready, one of them to be chosen with respect to the decision to be made at GERAN on UESBI are going to be transported (as MAP or Access Signaling parameters)**

– **This is a Rel-5 feature.**

Performance evaluation of multimedia codecs for PS conversational services

- **Status:**
  - *Budget defined up to 160 kEURO (+ 34 kEURO contingency left from AMR-WB exercise, if authorized)*
  - *Conversational testing methodology selected*
  - *UMTS simulator progressed towards final definition*
  - *Final Test bed still needed (including IPv6 and RoHC)*
  - *Up to 4 potential testing laboratories identified*
  - *Technical Annexes to formal contracts (i.e. Test plans & experimental designs) towards final definition*

  Completion expected by December 2003

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Privacy Capability

- **Work ongoing in SA1, no output**
- **No other work started**

Feature Interaction

Some work ongoing at S1.

OAM&P *(Operation, Administration, Maintenance and Provisioning)*

- **SA5 Rel-6 Feature: OAM&P**   **30%**
- **TSG Approval target remains 03/04.**

BB: Principles, Requirements & Architecture   **35%**
- Further updates based on IETF under investigation.
- No progress or support for linkage to OSA.

BB: Performance Management (PM)   **30%**
- 32.411 PM IRP: Requirements - for SA Approval
- 32.412 PM IRP: Information service - for SA Information
- additional meeting time needed especially for issues from China Mobile Com. Corporation (CMCC)

BB: User Equipment Management   - slow progress 12%
- **SA5 (involving T2,SA1,SA3,T3) analysis of "OMA draft Requirements specification for Device Management" revealed that OMA should take the lead.**
- **Downstream SA5 work identified (32.150 UEM Requirements. & Architecture).**
- **Stopped T2 work (27.150 UEM protocol spec; Stage 3).**
- **Revised WID prepared but not submitted to SA#20. Reason: Rapporteur resigned (Vodafone). No new Rapp.**

BB: Network Infrastructure Management   **25%**
- additional meeting time needed especially for issues from China Mobile Com. Corporation (CMCC)

BB: Trace Management   - stagnates at   55%
- Searching a way out from the deadlock on **trace activation** : **Signalling**-based vs. **Management**-based

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Charging Management

SA5 Feature Charging Management (CH)   15%

TSG Approval target remains: 03/2004.

New TS 32.297 Charging interface description to the billing domain – for SA information

New TR 32.815 On-line Charging System (OCS) architecture study – for SA information

Active communication with GSMA BARG (MMS etc.)

WLAN Charging & IP-flow based bearer level charging

- **Joint meeting held with SA2 (05/03) on Work split between SA2/SA5 and planning of transfer of work to SA5.**

Problems: Lack of human resources

- **Small number of active participants. Two main vendors & many operators are not represented at all.**

- **Large number of Charging TSs under SA5's responsibility lead to Editors/ Rapporteurs overload and lack of progress on some TSs.**

- **While the Rel-6 TSs are driven forward by zillions of experts in other WGs, the small number of SA5 Charging delegates that are available for specifying charging for all of these features, makes it very hard to even be prepared and follow on on the work in the other WGs.**

IP Flow Based Bearer Charging Evolution

- **Work progressing well in TR 23.825**

Packet Switched Streaming Rel-6

- **WID SA4 on new set of enhancements on Packet Switched Streaming approved at SA #18 : SA4 has agreed to restructure 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

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

- **WID SA4 on AMR-WB extension for High Audio Quality was approved at SA #18. Text on enhancements of AMR-WB was asked to be reviewed by SA4; an Updated WID is presented for approval at SA #19 (SP-030083)**
    - **SA4 work on AMR-WB+ expected to be completed by September 2003**
- **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

- **Stage 1: WI and TS 22.078 v.6.0.0 were approved at SA#18.**

- **Stages 2 and 3: CN WID "Enhancement of dialled service for CAMEL" was approved in CN#19. Work is ongoing – 30% completed. Stages 2 and 3 to be completed by December 2003 (was September).**

GERAN Rel-6

Feasibility studies:

- **Enhanced A/Gb feasibility study completed**
- **Uplink TDOA feasibility study completed (see corresponding item after LCS feature)**
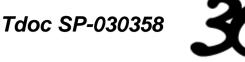
Features:

- **Addition of frequency bands to GSM: COMPLETED**
- **Seamless support of streaming services in A/Gb mode: completion expected by end of June 2003**
- **Flexible Layer One for GERAN: completion expected by end of June 2003**
- **Single Antenna Receiver Interference Cancellation (SAIC): 25% ready, completion expected by November 2003**
- **Support of Conversational Services in A/Gb mode via the PS domain: completion of TR expected by November 2003, Stage 2, RRM, HO, FLO… completion expected by April 2004**

New WIDs at TSG#20

Bandwidth and Resource savings and Speech enhancements for CS networks

- **From S2-032137**
- **This WID results from the earlier discussions related to eTFO**

Audio Codec

- **WID SA4 on AMR-WB extension for Audio Quality approved at SA #18.**

- **Competition for Lower and Higher Bit Rate Audio Codec approved at SA #19 (on going)**

- **Design Constraints and Performance Requirements COMPLETED**

- **Selection rules still to be finalized**

  Completion expected by December 2003

New WIs & SI approved at RAN #20

A-GPS minimum performance specification

Work task under the "UE Positioning" block

Responsibility in RAN WG4

Expected completion date: March 2004

Subscriber and Equipment Trace support in UTRAN

Responsibility in RAN WG3

Work task under the "Rel-6 Trace Management" feature of SA WG5

Expected completion date: September 2003

Feasibility Study on Uplink Enhancements for UTRA TDD

Responsibility in RAN WG1

Work task under the "Radio Interface Improvement" feature

Expected completion date: March 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**

Conclusion

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 #) 20: June 2003**
  - **(TSG #) 21: September 2003**
  - **(TSG #) 22: December 2003**
  - **(TSG #) 23: March 2004**
  - **(TSG #) 24: June 2004**

- **NA: Not applicable**

- **?: 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 (1/3)

Unique ID	Feature	FCD
2	Evolutions of the transport in the UTRAN	NA
2468	Multiple Input Multiple Output antennas (MIMO)	24
1216	Improvements of Radio Interface	21+22+23
9	RAN improvements	22
32045	PS domain and IMS impacts for supporting IMS Emergency cal	22
32023	Location Services enhancements 2	23
50541	Uplink TDOA location determination for GSM/GPRS	22
1800	Rel-6 UICC/USIM enhancements and interworking	21
1571	Security enhancements	23
32021	IMS Phase 2	22
32015	Radio optimisation impacts on PS domain architecture	NA
11032	Interop & Comlity for IMSs using difft "IPconvity Networks"	22
1365	Support of Push Services	23-24
42009	Multimedia Messaging (MMS) enhancements	22-23

FCD of Features (2/3)

Unique ID	Feature	FCD
42005	Rel-6 MExE enhancements - not considered as a feature	19
2062	Subscription Management	23
2499	Support of Presence Capability	22
2544	Multimedia Broadcast and Multicast Service	23
31006	Speech Recognition and Speech Enabled Services	23
31008	Generic User Profile	23
31010	Digital Rights Management	NA
31012	WLAN-UMTS Interworking	22-23
31015	Priority Service	?
31018	Network Sharing	23-24
32016	QoS Improvements	22-23
33002	Support for subscriber certificates	22-23
15010	Rel-6 OSA enhancements	22
32033	Handling of early UEs - Rel-5 feature	21

FCD of Features (3/3)

Unique ID	Feature	FCD
34300	Perf charact of def codecs for PS conv multimedia appli	22
31029	Study of Feature Interactions Requirements	?
31030	Study on Privacy Capability	?
35010	Rel-6 OAM&P	23
35016	Charging Management	23
34022	Packet Switched Streaming Services Rel-6	22
12006	Enhancement of dialled service for CAMEL	21
34023	AMR-WB extension for high audio quality	21
50063	Flexible Layer One for GERAN	20
50401	Addition of frequency bands to GSM	20
50130	Seamless support of streaming services in A/Gb mode	20
51101	Single Antenna Receiver Interference Cancellation (SAIC)	22
50500	Support of Conv Services in A/Gb mode via the PS domain	23
33017	Network Domain Security; Authentication Framework (NDS/AF)	?

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
50130	Seamless support of streaming services in A/Gb mode	20
50063	Flexible Layer One for GERAN	20
50401	Addition of frequency bands to GSM	20
34023	AMR-WB extension for high audio quality	21
1800	Rel-6 UICC/USIM enhancements and interworking	21
1216	Improvements of Radio Interface	21+22+23
11032	Interop & Comlity for IMSs using difft "IPconvity Networks"	22
12006	Enhancement of dialled service for CAMEL	22
15010	Rel-6 OSA enhancements	22
9	RAN improvements	22
32045	PS domain and IMS impacts for supporting IMS Emergency cal	22
50541	Uplink TDOA location determination for GSM/GPRS	22
32021	IMS Phase 2	22
2499	Support of Presence Capability	22
34300	Perf charact of def codecs for PS conv multimedia appli	22
34022	Packet Switched Streaming Services Rel-6	22

FCD of Features sorted by FCD (2/3)

Unique ID	Feature	FCD
51101	Single Antenna Receiver Interference Cancellation (SAIC)	22
42009	Multimedia Messaging (MMS) enhancements	22-23
31012	WLAN-UMTS Interworking	22-23
32016	QoS Improvements	22-23
33002	Support for subscriber certificates	22-23
32023	Location Services enhancements 2	23
1571	Security enhancements	23
2544	Multimedia Broadcast and Multicast Service	23
31006	Speech Recognition and Speech Enabled Services	23
31008	Generic User Profile	23
35010	Rel-6 OAM&P	23
35016	Charging Management	23
50500	Support of Conv Services in A/Gb mode via the PS domain	23
2062	Subscription Management	23
1365	Support of Push Services	23-24
31018	Network Sharing	23-24
2468	Multiple Input Multiple Output antennas (MIMO)	24

FCD of Features sorted by FCD (3/3)

Unique ID	Feature	FCD
2	Evolutions of the transport in the UTRAN	NA
32015	Radio optimisation impacts on PS domain architecture	NA
31010	Digital Rights Management	NA
31015	Priority Service	?
31029	Study of Feature Interactions Requirements	?
31030	Study on Privacy Capability	?
33017	Network Domain Security; Authentication Framework (NDS/AF)	?
42005	Rel-6 MExE enhancements - not considered as a feature	19
32033	Handling of early UEs - Rel-5 feature	21

Conclusion

- **Freezing Rel-6 in December 2003 (TSG#22) will lead to have 17 to 21 features in Rel-6**

- **Freezing it three months later (TSG#23) will enable to include 9 to 15 additional features**

- **There is a tendency to be too optimistic in terms of Foreseen Completion Dates: e.g. more than twelve FCDs have been shifted 3 months later compared to TSG#19, so FCDs are likely to be postponed again as technical work progresses.**

- ➢ **Given this, it seems that December 2003 is too early as freezing date for Rel-6.**

- ➢ **For the features listed here with FCD by TSG #23 and before, the requirements should be completed by TSG#21**