3GPP TSG SA #24
Seoul, South Korea, 7-10 June 2004

SP-040456

Review of the Work Plan at Plenaries #24

This version includes updates from TSG #24 but not final review from SA#24

Content

- Review of testing activities and pre-Rel-6
- Review of on-going features
  - Features to be completed by September 2004
  - Features to be completed by December 2004
  - Features to be completed after December 2004
- Conclusion

In ***Black***: Name of the task
In Red: important statement
In Green: question to the plenary
"FCD" = Foreseen Completion Date

Testing and pre-Rel-6 activities

Applies to pre-Release 6 Features

UE testing

- **T1 Release 99 Test Cases (TC): Quick progress: 299 CRs at T#24 (106 TTCN, 193 Prose)**
  - **Total number of TCs:**

Sig Batch 1	99	RF Batch 1	42
Sig Batch 2	95	RF Batch 2.1	20
Sig Batch 3	98	RF Batch 2.2.1	10
Sig Batch 4	97	RF Batch 2.2.2	7

  - **T1-Approved and GCF-Validated TCs after T1#24:**
    - **RF:** Validated: 31 TCs (all Package 1), Approved: 74 %
    - **SIG (TTCN):** Package 1: Validated: 88 TCs, Approved: 90 TCs (91 %)
      Package 2: Validated: 67 TCs, Approved: 74 TCs (81 %),
      Package 3: Validated: 0, Approved: 45 TCs (42 %)
      Package 4: 0
- **Other Releases: Work progressing on**
  - testing of LCRTDD (Rel-4)
  - Testing A-GPS Rel 6 Minimum Performance Requirements (but core spec not stable)

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 80% FCD by Aug. 2004 (it was 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 (Closed without progress at GERAN#19)

(*) 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)

Support of the Multimedia Broadcast Multicast Service (MBMS) in GERAN (MS): started, FCD November 2004 (it was 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 November 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: 10%, *FCD* February 2005 (it was November 2004)

•Reduction of PS service interruption in Dual Transfer Mode / MS/BTS Conformance testing : START in *June 2004*, *FCD* November 2004

Evolutions of the transport in UTRAN

- **Basket Feature for potential work items regarding transport in UTRAN.**
- **No activity on Rel-6**
- **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**

Review of on-going features

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
3	RAN Feasibility Studies	RP
2468	Multiple Input Multiple Output antennas (MIMO)	R1
20003	FDD Enhanced Uplink	RP
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 Im	S2
11032	Interoperability and Commonality between IMS using different "IP-	S2
1365	Support of Push Services	S1

List of on-going Features (2/4)

UID	Feature	WG
42009	Multimedia Messaging (MMS) enhancements	T2
42005	Rel-6 MExE enhancements	T2
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

List of on-going Features (3/4)

UID	Feature	WG
32016	QoS Improvements	S2
33002	Support for subscriber certificates	S3
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
31029	DELETE: Study of Feature Interactions Requirements	S1
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
34027	Codec Enhancements for Packet Switched Conversational Multime	S4

List of on-going Features (4/4)

UID	Feature	WG
34028	3G-324M Improvements	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
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
12008	CAMEL prepay interworking with SCUDIF	N2
31046	Circuit Switched Video and Voice Service Improvements	S1
32064	Access Class Barring and Overload Protection	S2
32066	Combining CS bearers with IMS	S2

Features completed or to be completed by September 2004

(proposed to belong to Rel-6)

Rel-6 Improvements of Radio Interface

- **Improvement of inter-frequency and inter-system measurement (R1).**
  - **The gain against the complexity is still debated.**
  - **RAN3 and RAN2 have indicated that the differences in complexity of the proposals under study are minor.**
  - **Completion date: September 2004**
- **Improvements of receiver performance of HSDPA UE (R4)**
  - **Performance Requirements of Receive Diversity for HSDPA**
    - **Progress according to the schedule. Simulation results presented, CRs will be presented in next RAN4. Completion date: September 2004**

Rel-6 RAN improvements (1/2)

- Remote Control of electrical antenna tilting (R3)
  - Agreement on On-Off-Keying as RAN3 compromise solution for the modulation scheme and on the data rates: 9.6 kbps mandatory, 38.4 kbps and 115.2 kbps optional. Modulation scheme impact on emissions to be studied by RAN4.
  - A set of new specifications (25.460, 25.461, 25.462 and 25.463) will be introduced.
  - Completion level is 75%, TR 25.802 v1.0.0 was presented to TSG-RAN#24
  - completion date September 2004
- Network Assisted Cell Change from UTRAN to GERAN – Network Side Aspects (R3)
  - Agreements on the methods for the Iur Interface, transfer of NACC information on the Iu Interface and message formats for RIM could be found which completed stage one and three work. No open issues are left.
  - The work on NACC is estimated as 100% complete and the TR 25.901 was approved at TSG-RAN#24.

TSG RAN Feasibility Studies (1/2)

- **UTRA Wide Band Distribution Systems (R4)**
  - **No progress. RAN4 proposes to close the study due to the lack of contribution.**
- **Analysis of higher chip rates for UTRAN TDD evolution (R1)**
  - **RAN4 part was completed.**
  - **RAN1's TR 25.895 in version 1.3.3**
  - **System level simulation and Service feasibility studies are remaining.**
  - **Estimated level of completion = 90% New date of completion: September 04 (RAN#25).**
- **OFDM analysis for UTRAN evolution (R1):**
  - **The TR 25.892 has been concluded and will be presented as v2.0.0 to the plenary.**

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Rel-6 RAN Work Items completed before TSG #24

- Rel-6 improvements of Radio Interface
  - FDD Base Station Classification
  - Improved receiver performance requirements for FDD UE
  - UMTS 850
  - UMTS 800
  - UMTS 1.7/2.1GHz.
- 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
  - RRM optimization for Iur and Iub; Improved access to UE measurement data for CRNC to support TDD RRM
- Feasibility Studies
  - Low Output powers for FDD BSs
  - Uplink Enhancements for Dedicated Transport Channels

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.
  - New WI proposed to extend A-GPS to include GALILEO and other satellite navigation systems
  - Work done on Accuracy of information Indication of capability for Rel-7
- Stage 2: all work completed by CRs on 23.271, except on Galileo, not progressing since May 2003. It is proposed to shift the FS on Galileo to Release 7.
- Stage 3: Most aspects to be done by OMA. Check if CN1 has to be involved (work not started, no corresponding WID). SA2 has sent an LS to OMA to check their capability/willingness of doing Stage 3. Check the mechanism. CN4 refers to OMA specs in particular for Le, Lr and Lpp interfaces. From SP-040232: OMA to finish their work by October 2004.
- No RAN nor GERAN impacts foreseen for these aspects.
- TS 32.271 on LCS charging to be approved in September.
- See also UTDOA in GERAN

LCS enhancements 2 (2/2)

- RAN aspects ("UE Positioning")
  - UE Positioning Enhancements: Basket task.
    - CRs agreed in RAN2 and RAN3 on the indication of the achieved accuracy in position estimate
    - UE Positioning Enhancements - other methods (LCS2-UEpos-enh)
    - Basket WI Closed. It is proposed that a separate WI/FS is presented for each possible method
  - A-GPS minimum performance specification (R4):
    - On progress.
    - Version 0.0.0 of TS 25.171 "Requirements for support of A-GPS (FDD)" presented
    - Lots of contributions and many new participants.
    - Conference calls will be arranged and possibly an ad-hoc meeting
    - Completion date is September 2004

Security Enhancements Rel-6

- **Network domain security**
  - **NDS/IP: TS 33.210 under Change control. Complete**
  - **NDS/AF TS 33.310 (Application Framework). Complete**
- **Key Management of group keys for Voice Group Call Services: CR to update Annex F of TS 43.020 to be discussed in SA3.**
  - **GERAN A/Gb mode security enhancements :**
    - **Ongoing work in SA3 to address the A5/2 problem. SA3 propose to withdraw support of A5/2 (after LS from GSMA-SG Chairman).**
  - **TS 55.226 (A5/4 – GEA4 Specification) was 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. No comments since presentation to SA#23. 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. Is a Stage 3 needed?**
  - **Interworking between IMS and CS networks**
    - **Stage 3 in TS 29.163 approved at CN#21. Work completed.**
  - **interworking with non-IMS IP networks,**
    - **CN1 Stage 3 (SIP/SDP issues, as e.g. preconditions) still by September**
    - **CN3 aspects SIP/SDP issues are completed.**
    - **CN3 IP v4/v6 Interworking aspects to be completed still by September but CN3 are blocked by lack of progress in Stage 2.**
  - **Mn interface (IM-MGW to MGCF) enhancements**
    - **Stage 3 in TS 29.332 (CN4): FCD is still September 2004**
    - **Stage 3 in TS 29.163 (CN3): Completed (March 2004)**
  - **Mp (MRFC - MRFP) interface protocol definitions (used for Presence and Trace)**
    - **Target for Stage 3 in TS 29.333 (CN4): Work on the specification not started. It is an addition of Mn-Interface specification. Work will not be finish before CN#26 (December 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
  - IMS Group Management:
    - Stage 2 completed
    - Stage 3 to be completed by September 2004, 50% completed

- Other Items:
  - IP v4-based IMS: WID on "Interworking aspects and migration scenarios for IPv4-based IMS Implementations" presented at SA#21. TR 23.981 to be presented for approval at SA#24 (June 2004). Any Stage 3 work is waiting completion of the FS.
  - Enhancements to Cx and Sh interfaces:
    - CRs on definition of public identities and sharing of public identities approved. Completion date is September. New specification to coordinate Diameter-based interfaces within 3GPP.
    - New specification to coordinate Diameter-based interfaces (3GPP TS 29.230) is sent for information and approval in CN#24.
  - 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.

IMS Phase 2 (3/3)

- Stage 2 90% completed and Stage 3 to be completed by September for:
  - IMS Conferencing
    - 80% complete, TR 29.847 is taken to this plenary for approval and intended to remain for Rel-6 only. Additionally TS 24.147 is taken to this plenary for information.
  - IMS Messaging
    - 50% complete, TS 24.247 is taken to this plenary for information
- Other related 3GPP aspects:
  - Gq (PDF – P-CSCF) interface: see slide on QoS
  - See also new WID on Codec enhancements for PS conversational multimedia applications (SA4)
  - For IMS charging, strong dependency on IETF Diameter (see Charging slide)
- Dependencies:
  - Stage 3 of IMS Phase 2 is closely dependent to the progress made by IETF
  - IMS Messaging and IMS Group Management depend on OMA's SIP/SIMPLE Instant messaging and SIMPLE Presence, to be completed respectively by June and November 2004 according to SP-040232

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

- 3GPP work completed
- 3GPP part of the work on “Commonality” and “Interoperability” closed in December 2003.
- Work expected to be done at 3GPP2 for “Interoperability”. No 3GPP dependency on this work.

Push Services

- Stage 1: Stable, in TS 22.174
- Stage 2: TR 23.976 presented for approval now at SA#23 (issue on NRPCA solved).
- The mechanisms to support Push are already in place, so no more work is needed.
- Work Complete except for some specific stage 3 issues to be covered by CRs.

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

- Stage 1 done by SA1. Progress was made in the following areas of Service requirements from SA1
  - Work progressed on Private addressing Schemes
  - Clarification on MMS client interaction with UICC .
  - removal of VHE based requirement
- Stages 2 and 3 handled by T2 (except MM1 stage 3 handled by OMA. OMA's MMS aspects to be completed by August 2004 according to SP-040232)
  - Recipient list added to MM4 to improve the handling of partial addressing failures
  - Possibility for the VASP to specify delivery conditions added to MM7
  - Several corrections to Rel-5 and Rel-6
  - Further work ongoing in the following and other areas:
    - IMS Messaging – working assumptions agreed
    - Enhancements to MM4 reference point – working assumptions agreed
    - Application ID in MMS – working assumptions agreed
    - Enhancements to MM1, MM7 reference points
- Completion date shifted to September 2004.
- SA4 responsible for codec and media types. Work to be completed by September 2004.
- SA5 doing the charging (TS 32.270). Requires T2's work stabilisation.
- CN5 is developing a Multi-Media Messaging SCF.

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.
    - Work progressing in T2, planned completion date shifted to September 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 and draft CRs presented to T2. General consensus that MM4 is suitable for multiple R/S within an MMSE but further analysis is required. Planned completion date shifted to September 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 moved to 09/2004 (was 06/2004)

- 32.140 SuM Requirements – SA Approved
- 32.141 SuM Architecture – SA Approved

For SA#24 Approval:

- 32.171 SuM resources IRP: Requirements

Target SA#25 Approval 09/2004 for:

- 32.172-100 SuM resources IRP: Network Resources Model
- 32.173 Protocols (IRP Solution Set)

- 32.803-100 Process Guide; Use Cases in UML

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! Comment from SA#23: Check if work is required for Presence. Still no input at SA4#31, proposed for deletion in September
- CN1 work to be completed by September 2004 in a new TS 24.141, which is brought to this plenary for approval with a completion rate of 90% (it was March 2004 and December 2003). Additionally TR 24.841 is taken to this plenary for approval and intended to remain for Rel-6 only.
- CN3 is responsible for the Pk interface for the support of PRESENCE, but have seen no contributions to date
- OSA Stage 3 "Presence APIs and Mapping to SIP"
  - TS-part completed under Feature "OSA Improvements"
  - TR-part moved to Feature "Support of Presence Capability" at CN#23
  - TR-part target for CN approval delayed from 06/2004 to 09/2004. Reason: NO resource in CN5. Companies supporting the Presence WID (NP-030302) are asked for resources. If no resource, WT should be deleted from the Presence WID / WP).
- Dependency on OMA's SIP/SIMPLE Instant messaging and SIMPLE Presence, to be completed respectively by June and November 2004 according to SP-040232

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 approved at SA#23.
- SA4 on Codec Work to Support Speech Recognition Framework for Automated Voice Services. Enhanced DSR is recommended for SES, use of AMR and AMR-WB is also possible (with reduced performance). TS 26.243 presented for approval at SA#24, with relevant CRs to TS 26.235 and TS 26.236. Completed.
- No WID on CS Support of Speech Recognition produced at SA4#31
- A new codec is defined, but the negotiation mechanisms are already in place so no additional work is needed from CN1.
- OMA dependency appears in SP-040420 from I. Sharp on multimodal support but not in SP-040232. Is it needed?

Digital Rights Management (DRM)

3GPP Work Completed

- 3GPP Stage 1 in TS 22.242, stable, but OMA defines its own Stage 1
- 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
- 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.
- Status of 22.242 is unclear; consider deletion?

- Results from OMA already available. They are referenced in 3GPP documents and publicly available.
- From SP-040232: "OMA Candidate Enabler" completed last May

WLAN/UMTS interworking (1/2)

- **Stage 1: Work is stable; Fine tuning in progress.**
  - Network and PLMN Selection for 3GPP-WLAN interworking
  - Corrections to TS 22.234
  - Multiple connections to VPLMNs simultaneously
  - UE connection to I-WLAN
  - WLAN Charging Identifiers
- **Stage 2 in TS 23.234, which was approved at SA#23 (important CRs to come up to June)**
- **SA5 work on WLAN charging (TS 32.252) awaiting for TS 23.234.**

WLAN/UMTS interworking (2/2)

- For scenario 2:
  - CN1 is 75% completed and documented in TS 24.234. Planned completion is now September 2004.
  - CN4 aspects:
    - WID updated; new requirements (reference points) from SA2 added.
    - Estimated completion of TS 29.234 is 70%. Expected completion is September 2004 (was December 03 then March then June)
- For scenario 3:
  - Stage 3 started, CN1 completion is 40 % aiming for September 2004 .
  - CN3 responsible for Wi interface, awaiting Stage 2 to be stable. CN3 to provide a new TS 29.161 on Wi interface, to be completed by September.
  - New interfaces (e.g. Wg and Wp) and some SA2 additions not analysed by CN, it is not yet clear which ones are mandatory in Rel-6 and which ones can be defined in later releases. To be clarified by CN4 and SA2 dialogs.
- T3 and CN1 are waiting for further guidance from SA1 on I-WLAN network selection (LS sent between these WGs, SA2 also involved)
- WLAN Interworking Security TS 33.234 was presented to TSG SA#23 and approved. CRs at SA#24.
- Provisioning of MMS via WLAN has to be clarified between SA2 and T2

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 ; Fine tuning in progress.
- 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
- Work on BB on Priority for Multimedia has started in SA1.

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 approved in March 2004. New TS 23.251 created, presented for approval by SA#24.
- 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)

RAN part:

- **Discussions on whether or not Network Sharing is a mandatory feature in the UE for the Rel-6. To be discussed at SA#24.n No foreseen impact on time schedule.**
- **CRs being discussed (broadcast of multiple PLMNs, indication of the selected PLMN).**
- **RAN3 has recommended the 'RAN centric' approach to SA2 as preferred method, over CN centric rerouting (this was the conclusion in CN1 as well).**
- **Completion date: RAN-25, i.e. September 2004.**

QoS Improvements

This Feature consists in:

- Dynamic Policy Control Enhancements for End-to-End QoS
  - The following work is based on the Feasibility Study in TR 23.917
  - Stage 2: propose to discontinue the FS and its associated TR 23.917. On Gq (PDF – P-CSCF) interface : the TR is discontinued but the actual Stage 2 work continues with CRs on 23.207 and related CRs on 23.207 are presented for approval for SA#24. Considered Stable.
  - Stage 3 (CN3): Draft TS 29.209 for “Policy control over Gq interface”. Target completion date is still September 2004

OSA Improvements

OSA have NO dependencies BUT overlaps with OMA (e.g. 29.199 Web Services).

OSA Stage 1: - CN5 will have a final look to see if 22.127 needs updates, and remind SA1.

OSA Stage 2: - CN5 prepared & SA2 approved CR 23.127 to align on Web Services and ease liaison with OMA.
- SA2 has decided to transfer OSA Stage 2 work to CN5

OSA Stage 3:

- Ongoing (target CN approval delayed from 06/2004 to 09/2004):
  - "Multi-Media Messaging SCF".
  - "High Availability at OSA API level" work started.
  - 29.199 "Parlay X, Web services" under WT "OSA interfaces at different levels of abstractions" submitted for the 2nd time CN#24 Information as a split into a multi-part TS for easy maintenance & OMA liaison.
  - "Presence APIs and Mapping to SIP"
    - TS-part completed under Feature "OSA Improvements".
    - TR-part moved to Feature "Support of Presence Capability" at CN#23
    - TR-part target for CN approval delayed from 06/2004 to 09/2004. Reason: NO resource in CN5. Companies supporting the Presence WID (NP-030302) are asked for resources. If no resource, WT should be deleted from the Presence WID / WP).

- Pending input from other WGs:
  - Generic User Profile (0 % progress; Still Pending input from SA1/2)

Performance evaluation of multimedia codecs for PS conversational services

- **Status: 100% completed.**
  - **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 at SA#23**
  - **Approval of the testing work done at SA#23**
  - **TR 26.935 v. 2.0.0 is presented for approval at SA#24**

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Study on Privacy Capability

- Input from OMA Requirements addressed
- Requirements study performed in TR 22.949 approved at SP-23. No new requirements have been established, i.e. all the information which needs to be protected is already protected.
- Work ongoing in external groups (e.g. OMA).
- No other work needed at this time.

Charging Management

TSG Approval target is 09/2004

- **Progress made in determining which services are going to be specified in 3GPP Rel-6 or OMA (e.g. Presence, Messaging, PoC). Some stability of Stage 1/2 descriptions of these services is required in order for SA5 to produce tangible results.**

OMA - Push to Talk over Cellular (PoC), Mobile-Commerce & Charging (MCC) WG co-operation

- **Based on an LS from OMA PoC, SA5 has replied to OMA MCC & PoC see: SP-040236 SA5 proposes to OMA MCC to co-operate in the charging area and outlined the possibility of OMA re-using the charging TS-structure of 3GPP. In order to demonstrate the approach, a straw-man TS for PoC charging has been produced and made available to the OMA WGs see: 32.272-002 Push-to-talk over Cellular (PoC) charging – draft TS available.**

- **OMA MCC delegates expressed an interest in SA5 SWGB further progressing this specification, therefore a joint session of the two groups is planned at OMA meeting #12.**

UICC/USIM enhancements and interworking for Rel-6

USIM toolkit enhancements completed (corrections being performed)

- **TR 31.919 "2G/3G Java Card™ API based applet interworking"** approved at T#23.
- **TS 31.130 v 2.0.0 (U)SIM API for Java Card™ approved at T#23.**

- USSD message transfer to USIM. WID approved at T#23. Technical work in progress.
- Test specification for (U)SIM API for Java Card ™ WID approved at T#23. Technical work in progress.

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 was presented for approval at SA#23, TS 26.245 and TS 26.246 are presented for approval at SA#24 , with relevant CRs to TS 26.234 to add new functionality and audio codecs)

Completion in SA4 expected by September 2004 (it was March); Status: 90 % completed.

Codecs selection :

PSS/MMS video codec :

H.264/AVC proposed as “optional” decoder for MMS, PSS and PSC in March 2004, could be recommended (“should”) as video codec for MMS, PSS, PSC, and 3G-324M, if a list of open issues is solved at SA4#32 in August

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 selection tests done at SA#23 (for ETSI to pay Host/Testing and Global Analysis Laboratories) COMPLETED
- PSS Audio Codecs: Extended AMR-WB (AMR-WB+) and Enhanced aacPlus both to be recommended
- MMS Audio Codecs: to be discussed in SA
- Verification phase: almost COMPLETED
- TR on performance to be
- Set of specs for both Extended AMR-WB (AMR-WB+) and Enhanced aacPlus presented for approval at SA#24

  FCD September 2004

- Info from SP-040232: OMA's Standard Transcoding Interface (STI) V1.0 to be completed by June 2004

AMR-WB+

- In full: AMR-WB extension for high audio quality
- Status: completed, specs presented for approval at SA#24

Codec Enhancements for Packet Switched Conversational Multimedia Applications

SA4 Status: 20% completed

Completion date set to September 2004

3G-324M Improvements

SA4 Status: 40% completed

Completion date set to September 2004

CAMEL

- **Rel-6 CAMEL 4 Stage 2 (TS 23.078) and Stage 3 (TS 29.078) completed, being corrected**
- **Rel-7 Stage 1 created (TS 22.078), Stages 2 and 3 not started**
- **WID "CAMEL prepay interworking with SCUDIF (for Kevin: Service Change Unrestricted Digital Information Fallback)" (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 is completed.**

- **Note that all CAMEL open issues will be handled in CN4 from now on (CN#24 officially closes CN2)**

BARS

In full: Bandwidth and Resource savings and Speech Quality enhancements

Acronym: BARS or CSSAVE?

- Stage 2 TR 23.977 presented for approval.
- This is a Feasibility Study and is not relevant for deciding the completion date of Release 6
- No other work (Stage 1, Stage 3 nor SA4 impacts) required as this is a FS.
- Some recommendations are already in place

SP-040456

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 approved at SA#23. This work being considered for CRs to existing specifications.

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 95% to 100% ready, FCD June 2004 (it was November 2003, then February 2004, then April)**
- **FS on Single Antenna Receiver Interference Cancellation (SAIC): 80% ready, FCD June 2004 (it was November 2003, then February 2004, then April 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 June 2004 (it was April)**
- **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: COMPLETED, except for potential LMU performance specs.
  - Uplink TDOA location determination for GPRS, PS domain: 5% ready, FCD November 2004
  - Advanced Receiver Performance (ARP): 10% to 60% ready, FCD November 2004 (it was June 2004)
  - Reduction of PS service interruption in Dual Transfer Mode: Study of use cases and requirements ready, Performance Study of Current Procedures ready, FCD June 2004

Features to be completed by December 2004 (belong to Rel-6 or Rel-7)

FDD Uplink Enhancements (EDCH)

- **Physical Layer (R1) :**
  - •Work started. Joint session with RAN2 and agreed upon a basic physical channel structure. Good start of the WI phase, focus on architectural issues
- **Layer 2 and 3 Protocol Aspects(R2):**
  - •Several agreements on protocol and transport channel structures. Also, some agreements on 'transmission types' (e.g. Stop-and-Wait HARQ similar to HSDPA). Reordering entity in the SRNC.
  - •Stage 2 TS 25.309 has been created, will be completed by September.
- **Iur Iub Aspects (R3):** Work has not started
- **RF and Performance (R4):**
  - •One contribution from R1 on UE power issues presented.
- **Foreseen completion date is December 2004 except for the performance requirements to be completed after**

Multimedia Broadcast/Multicast Service (1/3)

- Stage 1 completed and stable in TS 22.146. Addition of a concept regarding UE joining time
- Overall Stage 2 (SA2) in TS 23.246 approved at SA#21, important CRs provided at SA#22 & 23 and 100% completed.
- CN1 work is planned to be completed by September 2004. The work is 78% completed and documented in the TR 29.846.
- CN3 has selected Diameter for Gmb interface. Diameter is the current working assumption. Also to be completed by September 2004. CN3 consider this WI as 50% complete, aim to finish in Sept 2004

- CN4 work complete, covered by CRs on TS 29.060 (GTP).
- SA3 Security Work: Draft TS 33.246 MBMS Security was presented to SA#23 for information. Will be presented again for information at SA#24. Expected completion September 2004. 85% complete now.
  - Decision to allow use of both Terminal and UICC-based solutions.

Multimedia Broadcast/Multicast Service (2/3)

- **Support of MBMS in GERAN : 35% completed, FCD is Nov. 2004 (it was June 2004).**
- **Introduction of MBMS in RAN:**
  - **RAN2 and RAN3 ad-hoc happened in Budapest, Hungary.**
  - **Agreements on the handling of UEs in URA_PCH state in counting and scheduling messages.**
  - **The definitions from the Stage 2 TS 25.346 were clarified.**
  - **UEs in URA_PCH state have to be linked via the Iur interface at least for the notification purposes. MBMS Service area concept clarified with SA2.**
  - **The minimum bit rate supported by all MBMS capable UEs is to be defined.**
  - **Completion date: September 2004 for WG1, December 2004 for WGs 2 and 3, and later for WG4 (performance aspects).**

Multimedia Broadcast/Multicast Service (3/3)

- **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
- SA2 not really involved in the User Service definition
- SA4 work:
  - 50% completed. Realistic completion expected by December 2004
  - Joint meeting with SA3 on MBMS security issues proposed to be held on August 23rd, 2004.
- The involvement of CN1, mentioned in the WID, has still to be checked.

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

- No specific Stage 1 required.
- CRs to TS 22.228 might have to be produced (depends of results from SA2)
- Time schedule for SA2: June for information of TR 23.979, approval by December (but dependant on stable input from OMA). OMA's work to be completed by December according to SP-040232.
- No work ongoing on Stage 3 at the moment. Awaiting Stage 2 to be progressed. Not before Stage 2 is completed.
- SA5 cooperation on Charging with OMA MCC & PoC WGs (see Slide on Charging Management)

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 40%. TS 29.240 will be presented for approval at CN#26 in December 2004 (moved three times).**
  - **Dependencies on the Liberty Alliance Project**
- **GUP Security: No progress at last SA3 meeting: still 20% complete. Complete?**

OAM&P

Operation, Administration, Maintenance and Provisioning

- TSG Approval target is 09/2004 (CN1 delay =>Trace delayed 12/04)
- 80 New Rel-6 specs produced or in preparation so far…

BB: Principles, high level Requirements & Architecture (completed 06/04)
BB: Network Infrastructure Management (target remains 09/04)
BB: Performance Management (target remains 09/04)

BB: Subscriber and Equipment Trace Management (SA5 target remains 09/04)

- TSG Approval target for overall Trace functionality delayed from 09/04 to from 12/04
- Problem: Further info awaited from RAN3, CN1&4 on Trace Stage 3 in their specs.
- Note: SA5 decided to exclude GERAN from Rel-6 32.42x-series.
- In UTRAN:
  - For the management based activation a solution was agreed (Solution 1 as described in TR 3.014).
  - It was agreed that the CN INVOKE TRACE message will be used by the CN Node to convey the UE Identity to the RNC in case of MBA Tracing in the RNC
  - It was agreed that there was no need to provide means over Iur to activate a Trace Recording Session in a DRNC in which a Trace Session has been activated by Management.
  - Completed. A set of CRs based on these agreements was approved at TSG-RAN#24

Support for Subscriber Certificates

- No update since last plenary.
- 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. Approved at SA#23.
  - Draft TS 33.221GAA; Support for Subscriber Certificates. Approved at SA#23.
  - Draft TS 33.141 GAA/HTTPS. Presented to SA#23 for information.
- Stage 3 started and CN wide WID is approved. CN4 involved. Draft TSs exist. Planned completion is September 2004.
- SA1 and SA2 work done, T3 work not started.

Rel-6 RAN improvements (2/2)

- RAB support enhancement (R2)
  - Work focused how to optimize the RABs for IMS voice over IP
  - Completion date December 2004 (was September).
- Iu enhancements for IMS support in the RAN (R3)
  - RAN3 is still waiting for output of SA2/CN groups discussions on the open issue of varying traffic.
  - Level of completion is still 25%. Target is 6 months after SA2 part is finished.
  - To be deleted at next RAN if no contribution received in the meantime
- Optimisation of downlink channelisation code utilisation for FDD (R1)
  - Revised WID reviewed by RAN1. Work just started.
  - Target completion date: RAN#26(12/04)
- Optimisation of channelisation code utilisation for TDD (R1)
  - WID sent out on the email reflector for comments. No work has started.
  - Target completion date: RAN#26(12/04)

TSG RAN Feasibility Studies (2/2)

- Uplink Enhancements for UTRA TDD (R1)
  - Discussion on Hybrid ARQ as a candidate technique started in addition to already incorporated techniques.
  - Latest TR 25.804 (v0.2.0)
  - Estimated completion level is 20%, New completion date: RAN #26 (December 2004)
- Radio link performance enhancements (R1):
  - Only remaining topic is HSDPA enhancements (TR 25.899) has reached at a conclusion and the TR is presented as v1.0.0 to this plenary.
- Feasibility Study on the Evolution of the UTRAN Architecture (R3):
  - Work on hold in RAN3 until the MBMS work is finished

ACBOP

In full: 3GPP Access Class Barring and Overload Protection

- **Feasibility Study in TR 23.898 presented for information at SA#24, planed to be completed by September.**
- **All other aspects to be completed by December, including impacts on RAN and GERAN.**

Combining CS bearers with IMS

- Feasibility Study in TR 23.899 to be presented for information and approval in December at SA#26.
- Impact on Stage 2 and on Stage 3 not yet evaluated accurately, so no foreseen completion date.
- Discussions on relationship with SA1's new WID on "Adding media to CS calls and IPMM sessions"

IP Flow Based Bearer Charging

- SA2 TS 23.125 was approved at SA#23 and some cat B CRs and F CRs are presented for approval by SA#24. Stable in September
- 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. September anticipated as FCD.
- IPFIX and Diameter were proposed as protocol solutions for IP flow charging.
- Gx and Rx interfaces being defined by CN3, work to be completed by December.

Features to be completed after December 2004 (proposed to belong to Rel-7)

Multiple Input Multiple Output antennas (MIMO)

- RAN1:In progress. TR 25.876 was updated to v 1.5.0
- A few technical proposals have been agreed and included in the TR.
- It was clarified that there is no rush for introduction of new MIMO proposals, as long as the Evaluation Methodology is not agreed.
- 5 contributions on Evaluation Methodology – discussion continues
- Few contributions on system simulation setup and another on backward compatibility and simulation methodology were discussed. Finalisation of system setup and all relevant parameters will continue on the reflector and final agreement will be discussed next meeting.
- Many contributions could not be treated due to lack of time.
- RAN2, RAN3, RAN4: No activities
- Completion date for WG1: March 2005, for WG2, 3 and 4: December 2005

CS Video and Voice Service Improvements

- CRs presented at SA#23 for Stage 1
- Stage 2:
  - TR 23.801 is presented for information
  - SA2 completion date set to September (was June)
- Stage 3: Potential impact on CN3 and GERAN2 (to be confirmed one Stage 2 is more stable)

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 June 2005 (postponed from November 2004 and often 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.

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NEW WIs for approval at SA#24

- **SA2: "E2E QoS Enhancements"**
  - **The mechanisms described in the QoS related 3GPP specifications, especially TS23.207, are not enough to achieve fully end-to-end QoS guarantees in case of an interworking with different IP network domains or backbone networks. So the ways to interwork QoS policies and control between different IP network domains may be needed.**
  - **to be completed by March 2005**
- **SA2: "WID on IMS enhancements for NGN"**
  - **to be completed by March 2005**

SP-040456

NEW WIs for approval at SA#24

- SA1: Network Protection against Virus Infected Mobiles
- SA1: All-IP Network Feasibility Study
- SA1: Enhancements of VGCS in public networks
- SA1: Adding media to CS calls and IPMM sessions
- SA1: Multi system mobile stations (potential OMA dependency according to SP-040232)
- SA1: Network Selection Preferred List
- SA1: Toward A-GNSS concept to extend A-GPS to include GALILEO
- SA1: LCS for 3GPP Interworking WLAN

Reminder on deleted items

Deleted items in GERAN

- GPRS Extended Measurement Reporting, GPRS Idle Interference Measurements, Unsynchronized (blind) Cell Change Order towards a GSM cell: these functionalities were agreed to be removed in GERAN to simplify MS implementation and testing

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
- Policy-based control of DiffServ.

Conclusion

Conclusion

- The Foreseen Completion Dates are becoming stable: a very limited number of them have slipped since the previous plenary.
- The proposing scheme is proposed:
  - Features already completed or foreseen to be completed by TSG # 25 (September 2004): belong to Release 6
  - Features to be completed by TSG # 26 (December 2004): subject to further discussions
  - Features to be completed after TSG #26: belong to Release 7 or higher
- In all cases, TSG SA will define the exact content of Release 6 at TSG SA#25, based on the work done by then