

**Source: Secretary**

**Title: Frozen contents of Release 6**

**Agenda item: 6.1**

**Document for:**

Decision	
Discussion	
Information	<b>X</b>

## **1 Introduction**

This document provides the final status of the definition of the content of Release 6.

Release 6 content was frozen at last SA plenary meeting (SA#27) even if some features are not yet completed.

Section 2 lists all the Release 6 completed items, Section 3 lists the Release 6 items still not completed. For these ones, Submission Forms were provided to clearly indicate what are the tasks still open. They are all anticipated to be completed by next SA plenary.

Note that the Feasibility Studies are not listed in this document as they do not modify the concrete system.

## **2 Release 6 Completed features**

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

Includes:

- FDD Base Station Classification
- Improved receiver performance requirements for FDD UE
- Frequency bands: UMTS 850, UMTS 800, UMTS 1.7/2.1GHz.

### **Rel-6 RAN improvements**

Includes:

- Beamforming Enhancements
- RRM optimization for Iur and Iub; Improved access to UE measurement data for CRNC to support TDD RRM
- Network Assisted Cell Change from UTRAN to GERAN – Network Side Aspects
- Remote Control of electrical antenna tilting
- HS-DPCCH ACK/NACK Enhancement
- RAB support enhancement: Optimisation of downlink channelisation code utilisation for FDD (R1). Introduction of Fractional DPCH (F-DPCH)

**Rel-6 Improvements of Radio Interface**

Includes:

- Improvements of receiver performance of HSDPA UE: Performance Requirements of Receive Diversity for HSDPA

**IMS Phase 2**

- Interworking between IMS and CS networks (Stage 3 in TS 29.163)
- interworking with non-IMS IP networks
- Lawful Interception
- IMS Group Management
- IP v4-based IMS
- Enhancements to Cx and Sh interfaces
- IMS Conferencing
- IMS Management
- IMS Charging
- IMS Messaging

**IMSCOOP**

Full name: "Interoperability and commonality between IMS using different IP connectivity networks"

**Push Services****Speech Recognition and Speech Enabled Services**

3GPP Work completed, OMA's dependency on Multimodal support to be completed by December 2005 (was June).

**Digital Rights Management (DRM)**

Stages 2 and 3 covered by OMA work.

**WLAN/UMTS interworking**

Scenarios 1 to 3 (Scenario 4 and further in subsequent Releases)

**Priority Service Rel-6**

No Stage 2 and no stage 3 needed, It consists in a "Guide" to describe how existing 3GPP specifications support the high-level requirements

**QoS Improvements**

QoS Release 6 Improvements consist in Dynamic Policy Control Enhancements for End-to-End QoS.

**Performance characterization of default codecs for PS conversational multimedia applications****UICC/USIM enhancements and interworking for Rel-6**

It contains:

- 2G/3G Java Card™ API based applet interworking: completed in TR 31.919
- USIM enhancements for WLAN Interworking.
- USSD message transfer to USIM:

**Security Enhancements Rel-6**

It contains:

- Network domain security
- Key Management of group keys for VGCS (Voice Group Call Services)
- GERAN A/Gb mode security enhancements :
- G-MILENAGE Algorithm
- BACKUP Algorithm work: Agreed funding. SA3's WID presented at SA#26

**Generic Authentication Architecture (GAA)****GERAN Rel-6**

It contains:

- Addition of frequency bands to GSM
- Multiple TBF in A/Gb mode
- Seamless support of streaming services in A/Gb mode
- Flexible Layer One for GERAN
- Downlink Advanced Receiver Performance (DARP)
- MBMS just completed at GERAN#23 (see MBMS slide)

**Network Sharing****Codec Enhancements for PS Conversational Multimedia Applications****CAMEL Rel-6**

It consists in "CAMEL prepaid interworking with SCUDIF (Service Change UDI Fallback)"

**LCS enhancements 2**

It contains:

- 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

**UE Positioning**

Includes:

- Open interface between the SMLC and the SNR within the UTRAN to support Rel-4 positioning methods
- A-GPS minimum performance specification

**3GPP Enablers for services like Push to Talk over Cellular (PoC)****OSA Improvements Rel-6****OAM&P Rel-6**

In full: Operation, Administration, Maintenance and Provisioning

Composed of four independent BBs:

- BB: Principles, high level Requirements & Architecture
- BB: Network Infrastructure Management
- BB: Performance Management
- BB: Subscriber and Equipment Trace
  - Contains Management Based Activation (MBA) and non-SIP Signalling Based Activation of Trace
  - CN1 and CN4 Rel-6, the non-SIP-based Trace is now completed

**IP Flow Based Bearer Charging****Subscription Management (SuM)****ACBOP**

In full: 3GPP Access Class Barring and Overload Protection

**3 List of items still not completed, but agreed to belong to Release 6****MMS Enhancements**

In full: Multimedia Messaging Service Enhancements

- Open points: some remaining audio codec specs are not yet completed (fixed-point C-code TS, conformance TS, characterisation TR)

**Packet Switched Streaming Rel-6**

- Remaining issue is audio codec

**Presence**

- Open Items related to audio codec specs

**IMS Phase 2 (Incomplete Items)**

- Additional SIP Capabilities support (CN1). , open issues related to procedures related to IMS-ALG (IMS Application Level Gateway).
- Profiling of the protocol to ensure interoperability in an open inter-vendor environment.
- Impacts of the requirements from TISPAN: only the ones which have some backward Rel-7 compatibility problems, in particular the Mn interface, (the other ones are for Release 7)

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

- Remaining issue on codec

**Rel-6 RAN improvements**

RAB support enhancement: Optimisation of the RABs for IMS voice over IP. A new ROHC parameter has to be included in the radio interface

**Generic User Profile**

Issues still open:

Dependencies on the Liberty Alliance Project, Formalised approach to GUP XML Schema derivation using a defined UML approach with a standardised translation mechanism.

**Rel-6 Improvements of Radio Interface**

- Improvements of receiver performance of HSDPA UE: Improved performance requirements for HSDPA categories 7 and 8

**FDD Uplink Enhancements (EDCH)**

Performance requirements to be completed in June 2005

**CS Video and Voice Service Improvements - Redial Solution**

Other solutions than Redial are for Release 7

- Still some CRs on TS 24.008 and 23.009 to be provided

**Generic Access to A/Gb interface**

Stage 3 (25% ready) supposed to be completed at TSG GERAN#24

**Charging Management**

TSG Approval target remains Jun 2005

ID	Jnique_ID	Name	Release	Reso Name	Modifie	Acronym	Qtr 3, 2004				Qtr 1, 2005	
							May	Jul	Sep	Nov	Jan	Mar
1	2044	<b>VERSION 2005 March 25th</b>			No							
2	1462	<b>"CTRL + a" to display all the 3GPP fields</b>			No							
3	2058	<b>Content of Rel-6, frozen at SA#26</b>			No							
4	0				No							
5	2	<b>Rel-6 Evolutions of the transport in the UTRAN</b>	Rel-6	RP	No	ETRAN						
6	1216	<b>Rel-6 Improvements of Radio Interface</b>	Rel-6	RP	No	RInImp						
7	24006	<b>Improving Receiver Performance Requirements for the FDD UE</b>	Rel-6	R4	No	RInImp-UERecPerf						
8	24004	<b>Base station classification</b>	Rel-6	R4	No	RInImp-BSCClass						
10	24007	<b>UMTS-850</b>	Rel-6	R4	No	RInImp-UMTS850						
11	24009	<b>DS-CDMA introduction in the 800 MHz band</b>	Rel-6	R4	No	RInImp-UMTS800						
12	24010	<b>UMTS 1.7/2.1 GHz</b>	Rel-6	R4	No	RInImp-UMTS1721						
13	24013	<b>Improved Receiver Performance Requirements for HSDPA</b>	Rel-6	R4	No	RInImp-HSPerf						
16	3	<b>Rel-6 RAN Feasibility Studies</b>	Rel-6	RP	No							
17	23007	<b>FS of the improved access to UE measurement data for CRNC to</b>	Rel-6	R3	No	RANimp-RRMopt-FS						
18	1506	<b>FS on Radio link performance enhancements</b>	Rel-6	R1	No	RInImp-Rlperf						
19	21000	<b>FS on Improvement of inter-frequency and inter-system measure</b>	Rel-6	R1	No	RInImp-IfisMLCR						
20	21003	<b>FS for the analysis of OFDM for UTRAN enhancement</b>	Rel-6	R1	No	RInImp-FSOFDM						
21	21004	<b>FS on Uplink Enhancements for Dedicated Transport Channels</b>	Rel-6	R1	No	RInImp-FSUpDTrCh						
22	21005	<b>FS on Analysis on Higher Chip Rates for UTRA TDD evolutions</b>	Rel-6	R1	No	RInImp-FSVHCRTE						
23	24011	<b>FS on Low Output Powers for general purpose FDD BSs</b>	Rel-6	R3	No	RInImp-FSLoPw						
24	21007	<b>FS on Uplink enhancements for UTRA TDD</b>	Rel-6	R1	No	RInImp-FSUpEnhTDI						
25	24005	<b>FS on UE antenna efficiency test methods performance requirem</b>	Rel-6	R4	No	RInImp-UEAnTM2						
26	23006	<b>Deleted - FS on the evolution of the UTRAN architecture</b>	Rel-6	R3	No	RANimp-FSEvo						
27	20003	<b>FDD Enhanced Uplink</b>	Rel-6	RP	No	EDCH						
33	9	<b>Rel-6 RAN improvements</b>	Rel-6	RP	No	RANimp						
34	624	<b>RAB support enhancement</b>	Rel-6	R2	No	RANimp-RABSE						
40	20999	<b>Beamforming Enhancements</b>	Rel-6	R1	No	RANimp-BFE						
41	23012	<b>Rel6 RRM optimization for lur and lub</b>	Rel-6	R3	No	RANimp-RRMopt						
43	23010	<b>Remote Control of Electrical Tilting Antennas</b>	Rel-6	R3	No	RANimp-TiltAnt						
46	23011	<b>Network Assisted Cell Change (NACC) from UTRAN to GERAN -</b>	Rel-6	R3	No	RANimp-NACC						
47	32023	<b>Location Services enhancements 2</b>	Rel-6	S2	No	LCS2						
70	1571	<b>Rel-6 Security enhancements</b>	Rel-6	S3	No	SEC1						
77	32021	<b>IMS Phase 2</b>	Rel-6	S1	No	IMS2						
78	14014	<b>Enhancements to the Cx and Sh interfaces</b>	Rel-6	N4	No	IMS2-CCR						

ID	Jnique_ID	Name	Release	Reso Name	Modifie	Acronym	Qtr 3, 2004				Qtr 1, 2005	
							May	Jul	Sep	Nov	Jan	Mar
79	31025	IMS Group Management	Rel-6	S1	No	IMSGM						
83	11037	IMS Conferencing	Rel-6	N1	No							
86	31022	IMS Messaging	Rel-6	S1	No	IMSM						
93	11040	Additional SIP Capabilities support not covered by Rel-5	Rel-6	N1	No							
96	11041	Review additional SIP Capabilities against IMS	Rel-6	N1	No							
97	2048	Interworking between IMS and IP networks	Rel-6	N3	No	IMS-CCR-IWIP						
102	2047	Interworking between IMS and CS networks	Rel-6	N3	No	IMS-CCR-IWCS						
103	14001	Mn interface (IM-MGW to MGCF) enhancements (CN4 Part)	Rel-6	N4	No	IMS2-Mn						
104	31036	Study of subscriber and operators relationship in IMS and relate	Rel-6	S1	No							
105	33012	Lawful Interception in the 3GPP Rel-6 architecture	Rel-6	S3	No	SEC1-LI						
106	31042	IMS Subscription and access scenarios	Rel-6	S1	No							
107	35032	IMS charging	Rel-6	S5	No	IMS2-CH						
108	11051	IMS Management objects	Rel-6	N1	No							
109	32027	Deleted - Stage 2 of IMS Phase 2	Rel-6	S2	No							
110	32063	3GPP Enablers for services like Push to Talk over Cellular (PoC)	Rel-6	S2	No	PoC						
115	32062	Interworking aspects and migration scenarios for IPv4 based	Rel-6	S2	No	IPv4IMS						
116	11032	Interoperability and Commonality between IMS using differen	Rel-6	S2	No	IMSCOOP						
120	1365	Support of Push Services	Rel-6	S1	No	PUSH						
123	42009	Multimedia Messaging (MMS) enhancements	Rel-6	T2	No	MMS6						
132	42005	Rel-6 MExE enhancements	Rel-6	T2	No	MEXE6						
133	42006	MExE Rel-6 Improvements and Investigations	Rel-6	T2	No	MEXE6-ENHANC						
134	42007	MExE Run-Time Independent Framework Feasibility Study	Rel-6	T2	No	MEXE6-RTIF						
135	2062	Subscription Management	Rel-6	S5	No	SuM						
136	2499	Presence Capability	Rel-6	S1	No	PRESNC						
144	50056	Enhanced A/Gb feasibility study	Rel-6	GP	No	AGbEnFS						
152	50063	Flexible Layer One for GERAN	Rel-6	GP	No	FLOGER						
170	50041	Uplink TDOA feasibility study	Rel-6	GP	No	TDOAF						
171	2544	Multimedia Broadcast and Multicast Service	Rel-6	S1	No	MBMS						
200	31006	Speech Recognition and Speech Enabled Services	Rel-6	S1	No	SRSES						
206	31008	Generic User Profile Rel-6	Rel-6	S1	No	GUP						
212	31010	Digital Rights Management	Rel-6	S1	No	DRM						
218	31012	WLAN-UMTS Interworking Rel-6	Rel-6	S1	No	WLAN						
230	31015	Priority Service	Rel-6	S1	No	NTShar						
235	31018	Network Sharing	Rel-6	S1	No	NTShar						

ID	Jnique_ID	Name	Release	Reso Name	Modifie	Acronym	Qtr 3, 2004				Qtr 1, 2005	
							May	Jul	Sep	Nov	Jan	Mar
241	32016	QoS Improvements	Rel-6	S2	No	QoS1						
245	33002	Subscriber certificates	Rel-6	S3	No	SEC1-SC						
251	15010	Rel-6 OSA enhancements	Rel-6	N5	No	OSA3						
262	50401	Addition of frequency bands to GSM (TAPS)	Rel-6	GP	No	TAPS						
267	50130	Seamless support of streaming services in A/Gb mode	Rel-6	GP	No	SSStrea						
282	34300	Performance characterisation of default codecs for PS conve	Rel-6	S4	No	CODCAR						
283	31030	Study on Privacy Capability	Rel-6	S1	No	PrivCap						
284	35010	OAM&P Rel-6		S5	No	OAM						
292	35016	Charging Management	Rel-6	S5	No	CH						
310	1800	Rel-6 UICC/USIM enhancements and interworking	Rel-6	T3	No	USAT1						
311	1802	UICC API	Rel-6	T3	No	USAT1-API						
316	43004	Rel-6 USIM toolkit enhancements	Rel-6	T3	No							
321	34022	Packet Switched Streaming Services Rel-6	Rel-6	S4	No	PSSrel6						
324	34023	AMR-WB extension for high audio quality	Rel-6	S4	No	AMRWB+						
325	34027	Codec Enhancements for Packet Switched Conversational M	Rel-6	S4	No	CEPSCM						
326	34028	3G-324M Improvements	Rel-6	S4	No	3G-324MI						
327	51101	Single Antenna Receiver Interference Cancellation (SAIC)	Rel-6	P,G1	No	SAIC						
328	50500	Support of Conversational Services in A/Gb mode via the PS	Rel-6	GP	No	SCSAGB						
335	12006	Enhancement of dialled service for CAMEL	Rel-6	S1	No	EDCAMEL						
337	32060	Bandwidth and resource savings in CS networks	Rel-6	S2	No	BARS						
338	33018	FS on (U)SIM Security Reuse by Peripheral Devices on Local	Rel-6	S3	No							
339	50600	Multiple TBF in A/Gb mode	Rel-6	P,G2	No	MULTBF						
345	50096	Alignment between the test-regimes for GERAN capable MS	Rel-6	G3	No	ALTERE						
347	50444	Addition of U-TDOA in the CS domain	Rel-6	GP	No	UTDOACS						
348	50445	Addition of U-TDOA in the PS domain	Rel-6	GP	No	UTDOAPS						
349	50101	Downlink Advanced Receiver Performance	Rel-6	GP	No	DARP						
359	50109	Reduction of PS service interruption in Dual Transfer Mode	Rel-6	G2	No	PSintDTM						
365	12008	CAMEL prepay interworking with SCUDIF	Rel-6	N4	No	SCCAMEL						
366	31046	Circuit Switched Video and Voice Service Improvements	Rel-6	S1	No	CS_VSS						
372	33020	Network Domain Security; MAP application layer security (NE	Rel-6	S3	No	MAPSEC						
373	33021	FS on Security for early IMS	Rel-6	S3	No	SEC-IMS						
374	13024	Reorganisation of CS Data Specifications	Rel-6	N3	No	CS Data						
375	31029	Deleted - Study of Feature Interactions Requirements	Rel-6	S1	No	FINTER						

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Date: Mon 18/04/05

Critical		Milestone		Rolled Up Baseline	
Critical Split		Summary Progress		Rolled Up Baseline Milestone	
Critical Progress		Summary		Rolled Up Milestone	
Task		Rolled Up Critical		External Tasks	
Split		Rolled Up Critical Split		Project Summary	
Task Progress		Rolled Up Critical Progress		External Milestone	
Baseline		Rolled Up Task		Deadline	
Baseline Split		Rolled Up Split			
Baseline Milestone		Rolled Up Task Progress			