

Source: Secretary

Title: Status of Release 6

Agenda item: 5.1

Document for:

Decision	
Discussion	
Information	X

1 Introduction

This document provides a complete list of the features that are currently expected to be included with Release 6 and is accurate of 1st April 2004.

3GPP TSG SA anticipates to freeze Release 6 by September 2004 but this has to be validated by the actual work progress in the forthcoming months.

At the end of this document is included a Gantt Chart showing the progress made in completing Release 6 and the expectations for the completion of the outstanding work.

2 Features foreseen to belong to Release 6

2.1 Evolutions of the transport in UTRAN

Basket Feature for potential work items regarding transport in UTRAN.

Will include:

- IP-ATM interworking on lu, lur and lub (one solution to be selected among 3 candidates)

2.2 Rel-6 Improvements of Radio Interface

- UMTS 1.7/2.1GHz
- Improvement of inter-frequency and inter-system measurement
- Improvements of receiver performance of HSPDA UE
- FDD Base Station Classification
- Improved receiver performance requirements for FDD UE
- UMTS 850
- UMTS 800

2.3 Multiple Input Multiple Output antennas (MIMO)

2.4 Rel-6 RAN improvements

Will include:

- Remote Control of electrical antenna tilting

- RAB support enhancement (R2) (includes lu enhancements for IMS support in the RAN)
- Rel6 RRM optimization for Iur and Iub (includes Improved access to UE measurement data for CRNC to support TDD RRM)
- Network Assisted Cell Change from UTRAN to GERAN – Network Side Aspects
- Beamforming Enhancements

2.5 LCS enhancements 2

Will include:

- 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 Enhancements (includes Work on IPDL enhancements, A-GPS minimum performance specification and Open interface between the SMLC and the SNR within the UTRAN to support Rel-4 positioning methods)

2.6 Security Enhancements Rel-6

Will include:

- Network domain security
- Key Management of group keys for Voice Group Call Services: ongoing – 50%. Still under discussion.
- GERAN A/Gb mode security enhancements :
- G-MILENAGE Algorithm: completed at SA#18.

2.7 IMS Phase 2

Will include:

- IMS Local services.
- Interworking between IMS and CS networks
- interworking with non-IMS IP networks,
- Mn interface (IM-MGW to MGCF) enhancements
- Mp (MRFC - MRFP) interface protocol definitions
- Lawful Interception in the 3GPP Rel-6 architecture
- IP v4-based IMS.
- Enhancements to Cx and Sh interfaces:
- IMS Group Management:
- IMS Conferencing
- IMS Messaging
- Additional SIP Capabilities support (covers various minor enhancements to SIP)

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

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

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

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

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.

2.9 Push Services**2.10 MMS (Multimedia Messaging Service) Enhancements**

Will include:

- MMS Online charging interfaced introduced
- Support of Hyperlinks added
- MM7 improvements introduced
- Handling of private addressing schemes in MMS
- FS Multiple MMS Relay/Server Architecture

2.11 MExE Enhancements Rel-6

Note that there is no real new service offered by this feature.

2.12 Subscription Management (SuM)**2.13 Presence****2.14 Multimedia Broadcast/Multicast Service****2.15 Speech Recognition and Speech Enabled Services****2.16 Generic User Profile****2.17 Digital Rights Management****2.18 WLAN/UMTS interworking**

- up to scenario 3 (see 23.234)

2.19 Priority Service**2.20 Network Sharing (1/2)****2.21 QoS Improvements**

Will include:

- Policy control over Gq interface

2.22 Support for Subscriber Certificates**2.23 OSA Improvements****2.24 Performance evaluation of multimedia codecs for PS conversational services****2.25 Privacy Capability****2.26 OAM&P (Operation, Administration, Maintenance and Provisioning)****2.27 Charging Management**

Will include:

- IP Flow Based Bearer Charging

2.28 UICC/USIM enhancements and interworking for Rel-6**2.29 USIM toolkit enhancements**

- Including decision on 3rd form factor

2.30 Packet Switched Streaming Rel-6

Will include:

- Codecs selection
- PSS/MMS video codec
- H.264/AVC proposed as optional decoder for MMS, PSS and PSC
- PSS/MMS Audio codec: see next item

2.31 Audio Codec

Will include:

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

2.32 CAMEL

Will include:

- CAMEL prepay interworking with SCUDIF

- 2.33 3GPP Enablers for services like Push to Talk over Cellular (PoC)**
- 2.34 FS on (U)SIM Security Reuse by Peripheral Device on Local Interface**
- 2.35 CS Video and Voice Service Improvements**
- 2.36 GERAN Rel-6**

Will include:

- 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
- Support of Conversational Services in A/Gb mode via the PS domain
- Alignment between the test-regimes for GERAN capable MS

GERAN Feasibility studies:

- FS on Single Antenna Receiver Interference Cancellation (SAIC)
- Enhanced A/Gb feasibility study
- Uplink TDOA location determination for GSM, CS domain
- Uplink TDOA location determination for GPRS, PS domain
- Advanced Receiver Performance (ARP)
- Reduction of PS service interruption in Dual Transfer Mode

Reminder on deleted items

























- Preferred framing protocol for bearer independent CS architecture, part of "Evolutions of the transport in CN"
- Enhanced Tandem Free Operation (eTFO)
- Identity Portability in IMS
- Enhanced home environment control of security
- Security signalling flows for the Ze interface
- Radio optimisation impacts on PS domain architecture
- Improvements of RRM across RNS and RNS/BSS
- SI on Enhancements of OTDOA positioning using Advanced Blanking Methods
- Feature Interaction
- Enhanced HE control of security

ID	Unique_I	Name	Qtr 1, 2003			Qtr 3, 2003			Qtr 1, 2004			Qtr 3, 2004			Qtr 1
			Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan
1	2044	VERSION 2004 March 11th													
2	1462	"CTRL + a" to display all the 3GPP fields													
3	2058	Content of Rel-6 and after. Not frozen.													
4	0														
5	2	Evolutions of the transport in the UTRAN													
6	1216	Improvements of Radio Interface													
7	1470	Improvement of inter-frequency and inter-system measurement													
8	24006	Improving Receiver Performance Requirements for the FDD UE													
9	24004	Base station classification													
11	24007	UMTS-850													
12	24009	DS-CDMA introduction in the 800 MHz band													
13	24010	UMTS 1.7/2.1 GHz													
14	24013	Improved Receiver Performance Requirements for HSDPA													
16	3	Feasibility Studies													
26	2468	Multiple Input Multiple Output antennas (MIMO)													
31	9	RAN improvements													
32	624	RAB support enhancement													
34	23005	Improvement of RRM across RNS and RNS/BSS													
35	20999	Beamforming Enhancements													
36	23012	Rel6 RRM optimization for lur and lub													
38	23010	Remote Control of Electrical Tilting Antennas													
39	23011	Network Assisted Cell Change (NACC) from UTRAN to GERAN - network-													
40	23007	FS of the improved access to UE measurement data for CRNC to support													
41	23006	FS on the evolution of the UTRAN architecture													
42	32045	PS domain and IMS impacts for supporting IMS Emergency calls													
48	32023	Location Services enhancements 2													
49	32024	Improvement on Le interface													
52	32001	Enhanced support for anonymity and user privacy													
55	32025	Enhanced inter-GMLC interface													
58	32012	Location Services support for IMS public identities													
61	32026	New area event for location service triggering reports													
65	32029	FS on applicability of GALILEO for LCS													
68	20001	UE positioning													

ID	Unique_I	Name	Qtr 1, 2003			Qtr 3, 2003			Qtr 1, 2004			Qtr 3, 2004			Qtr 1		
			Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan		
81	32027	Stage 2 of IMS Phase 2															
82	14014	Enhancements to the Cx and Sh interfaces															
83	31025	IMS Group Management															
87	11037	IMS Conferencing															
90	31022	IMS Messaging															
96	32005	IMS Local services															
99	11040	Additional SIP Capabilities support not covered by Rel-5															
102	11041	Review additional SIP Capabilities against IMS															
103	2048	Interworking between IMS and IP networks															
108	2047	Interworking between IMS and CS networks															
109	14001	Mn interface (IM-MGW to MGCF) enhancements (CN4 Part)															
110	14012	Mp (MRFC - MRFP) interface (CN4 Part)															
111	31036	Study of subscriber and operators relationship in IMS and related ISIM															
112	33012	Lawful Interception in the 3GPP Rel-6 architecture															
113	31042	IMS Subscription and access scenarios															
114	32063	3GPP Enablers for services like Push to Talk over Cellular (PoC)															
115	32062	Interworking aspects and migration scenarios for IPv4 based IMS															
116	11032	Interoperability and Commonality between IMS using different "IP-c															
120	1365	Support of Push Services															
123	42009	Multimedia Messaging (MMS) enhancements															
131	42005	Rel-6 MExE enhancements															
134	2062	Subscription Management															
135	2499	Support of Presence Capability															
142	50056	Enhanced A/Gb feasibility study															
152	50063	Flexible Layer One for GERAN															
170	50041	Uplink TDOA feasibility study															
171	2544	Multimedia Broadcast and Multicast Service															
197	31006	Speech Recognition and Speech Enabled Services															
201	31008	Generic User Profile															
208	31010	Digital Rights Management															
212	31012	WLAN-UMTS Interworking															
219	31015	Priority Service															

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			Jan	Mar	May	Jul	Sep	Nov	Jan	Mar	May	Jul	Sep	Nov	Jan
239	15010	Rel-6 OSA enhancements													
249	50401	Addition of frequency bands to GSM													
254	50130	Seamless support of streaming services in A/Gb mode													
269	34300	Performance characterisation of default codecs for PS conversator													
270	31029	Study of Feature Interactions Requirements (This should be delete													
271	31030	Study on Privacy Capability													
272	35010	OAM&P													
280	35016	Charging Management													
285	1800	Rel-6 UICC/USIM enhancements and interworking													
294	34022	Packet Switched Streaming Services Rel-6													
297	34023	AMR-WB extension for high audio quality													
298	34027	Codec Enhancements for Packet Switched Conversational Multimed													
299	34028	3G-324M Improvements													
300	51101	Single Antenna Receiver Interference Cancellation (SAIC)													
301	50500	Support of Conversational Services in A/Gb mode via the PS domai													
308	12006	Enhancement of dialled service for CAMEL													
310	32060	Bandwidth and resource savings in CS networks													
311	33018	FS on (U)SIM Security Reuse by Peripheral Devices on Local Interf													
312	50600	Multiple TBF in A/Gb mode													
318	50096	Alignment between the test-regimes for GERAN capable MS													
320	50444	Addition of U-TDOA in the CS domain													
321	50445	Addition of U-TDOA in the PS domain													
322	50101	Advanced Receiver Performance													
332	50109	Reduction of PS service interruption in Dual Transfer Mode													
338	12008	CAMEL prepay interworking with SCUDIF													
339	31046	Circuit Switched Video and Voice Service Improvements													

Project: 3GPP_Work Plan
 Date: Thu 01/04/04

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