

Source: MCC
Title: Content of Rel-4 and Rel-5

Introduction

This document describes the actual content of Rel-4 and the foreseen content of Rel-5.
It includes the results of TSG RAN, T, CN and SA#11.

Only the names of the features are provided here. More information on the features can be found in the Work Plan, which last available version is March, 20th (tdoc SP-010184), i.e. not including the results of TSG SA#11. As soon as available, the newer version of the Work Plan including the results of SA#11, in line with this document, will be available on the server: a notification will be sent on the 3GPP SA, CN, RAN and T e-mail lists.

Actual content of Release 4

Evolutions of the Transport in the UTRAN – Rel-4 part

- QoS optimisation for AAL2 connections over Iub and Iur interfaces.
- Transport bearer modification procedure on Iub, Iur, and Iu (note: this was previously known as “Migration to modification procedures”).

Evolutions of the transport in CN – Rel-4 part

- IP transport of CN protocol.
- FS on transport and control separation in PS domain (this FS will not lead to any feature).

Improvements of Radio Interface - Rel-4 part

- UTRA repeater specification
- DSCH power control improvement in SHO.

Low chip rate TDD option

RAB Quality of Service Negotiation over Iu during relocation

RAN improvements - Rel-4 part

- RRM optimization for Iur and Iub
- Node B synchronisation for TDD
- RAB support enhancement

Transparent End-to-End PS Mobile Streaming Applications

Emergency call enhancements – Rel-4 part: for CS based calls

Enable bearer independent CS architecture (Lawful interception still in progress at S3)

Real time Facsimile (Rel-4)

MExE Enhancements - Rel-4 part (the main enhancements are Third MExE classmark for a new small-footprint Java platform, support of SDR concepts by software download and Security enhancements)

Tandem Free Operation

Transcoder Free Operation

ODB (Operator Determined Barring) for Packet Oriented Services

Multimedia Codecs

Multimedia Messaging Service

UICC/(U)SIM enhancements and interworking

- Common PCN Handset Specification (CPHS)

(U)SIM toolkit enhancements

- USAT local link
- UICC API testing (main task is the test specification for the Java API, as defined in release 99).
- Protocol Standardisation of a SIM Toolkit Interpreter (Stage 2 expected at TSG-T #12 for approval but remains in Rel-4)

Advanced Speech Call Items enhancements (created for Rel-4 to maintain the specs only, i.e. not a new feature).

Terminal Interfaces - Rel-4 part

- AT Commands enhancements: specification of AT commands for new services (closed even if the goal was not completely reached)
- Continues evolution of Synchronization protocol
- Terminal Local Model

Charging and OAM&P

Note: the testing and OAM activities are not subject to the TSG #12 deadline to be part of Release 4.

- OAM Architecture, and Management of Configuration, Fault, Performance and Charging should be completed by June
- UTRAN Operations & Maintenance procedures

Reliable QoS for PS domain - for Rel-4: QoS in UMTS only

GERAN WI status - Rel-4 part (to be confirmed by next GERAN plenary)

- GERAN/UTRAN interface evolution of Iups
- GERAN/UTRAN interface evolution of Iucs
- Low chip rate TDD interworking with GERAN
- Gb over IP & Gb enhancements (Stage 2 & Stage 3)
- 700 MHz spectrum support
- Wideband telephony services (UMTS) GMSK support
- LCS for GERAN Stage 2 (CS mode & Timing Advance positioning)

LCS enhancements - Rel 4 (IPDL for TDD methods)

Small Technical Enhancements and Improvements for Release 4

Foreseen content of Release 5

Evolutions of the Transport in the UTRAN – Rel-5 part

- IP Transport in the UTRAN
- Evolution of transport in UTRAN and GERAN

Improvements of Radio Interface - Rel-5 part

- FDD BS classification (expected completion 09/01)
- TDD BS classification (expected completion 06/01)
- Terminal power saving features
- Improvements of inter-frequency and inter-system measurement
- Hybrid ARQ II/III
- Improved usage of downlink resource in FDD for CCTrCHs

Evolutions of the transport in CN – Rel-5 part

- FS on SS7 signalling transportation in the CN with SCCP-User Adaptation (SUA).

RAN improvements - Rel-5 part

- RRM optimization for Iur and Iub: Separation of resource reservation and radio link activation
- RAB support enhancement: Issues other than ROHC

Global Text Telephony (target completion date: June 2001)

IP-based Multimedia Services

Emergency call enhancements – Rel-5 part: For IP & PS based calls

Push Services

VHE improvements

CAMEL phase 4

MExE Enhancements - Rel-5 part

GERAN WI status - Rel-5 part

- Evolution of transport in UTRAN and GERAN
- Evolution of the transport for A interface
- GERAN support for IP multimedia
- Alignment of 3G functional split and Iu
- GERAN enhancements for streaming services
- Real Time QoS for packet services including VoIP (UTRAN)
- Wideband telephony services (UMTS) 8-PSK support
- GERAN MS + BTS Conformance test for WB AMR
- LCS for GERAN (E-OTD and GPS positioning)

S4 WI status (Rel-5)

- Wideband Codec: 8-PSK performance
- Audio visual terminal characteristics

Subscription Management

- Operational Requirements and Specifications

- Co-ordination planned with other working groups on e.g. VHE enhancement or Charging and OAM&P

LCS enhancements: Rel-5 part (open LCS interface for UMTS and GERAN, new positioning methods)

Reliable QoS for PS domain - For Rel-5: End-to-end QoS

New WI approved at RAN#11:

- HSDPA
- Mitigating the Effect of CPICH Interference at the UE
- Introduction of SIR measurement
- Enhancement on the DSCH hard split mode
- Enhancement of Broadcast and Introduction of Multicast Capabilities in RAN
- Improvement of Radio Resource Management across RNS and RNS/PSS
- Traffic Termination Point Swapping
- UE positioning enhancements for 1.28 Mcps TDD
- Node B Synchronisation for 1.28 Mcps TDD
- RL Timing Adjustment
- Gated DPCCCH Transmission
- Separation of resource reservation and radio link activation

Wideband AMR

Enhancements to (U)SIM toolkit secure messaging

Terminal Interfaces - Rel-5 part (vObjects and Other Constructs for Use in Data Synchronization).

Intra Domain Connection of RAN Nodes to Multiple CN Nodes

Other

Release-independent:

UMTS 1800

UMTS 1900

Miscellaneous UE Conformance Testing Activities and any other UE Testing activity: Several work items will be presented for approval at TSG #12 (note: the testing activities are not subject to the TSG#12 deadline for being included in Rel-4).

Beyond Rel-5

Security Enhancements

- Enhanced HE control of security (including positive authentication reporting): Delayed to Post Rel-5

Not decided yet:

Security Enhancements (check again at TSG #12)

- Network Domain Security
- IMS Security

OSA enhancements (check again at TSG #12)

MAP security

Deleted at TSG #11

Bearer Modification without Pre-Notification

CS Multimedia services

QoS for CS services at HOs (inter-MSC and SRNS change)

FS on UICC/ME Performance Enhancements (transferred to ETSI Project Smart Card Platform - EP SCP)

UICC/USIM database specification

UE-triggered authentication during connections

Terminal Interfaces - Rel-4 part

Alternatives to AT commands