目 录

第1章 协议阅读指南

1.1 协议的框架

在第三代移动通讯体系中，目前主要有三大阵营，即 TD-SCDMA、WCDMA、CDMA2000(其他一些小的阵营我们几乎可以不用关心，此处不再提及。TD-SCDMA、WCDMA 的协议是由 3GPP 标准化组织制定的，而 CDMA2000 是由 3GPP2 标准化组织制定的，所以有时也用 3GPP 代指 TD-SCDMA、WCDMA，用 3GPP2 代指 CDMA2000。

在第二代移动通讯体制中，也主要有两大阵营，即 GSM 与窄带 CDMA(IS-95)。由 GSM 向 3G 过渡是走的 WCDMA 技术路线，由 IS-95CDMA 向 3G 过渡是走 CDMA2000 的路线。

1.2 阅读协议的技巧

读协议首先要抓住总体与重点，否则，任何一个人也无法阅读全部的协议。对于我们来说，3GPP 当然是所有协议的重点，与 3GPP 密切相关的协议是次重点。

1.2.1 UMTS 与 3GPP 的关系

UMTS 是一个过时的术语，现在已经不再使用，因为 UMTS 的提法是在 3GPP 成立以前由 SMG(特别移动组)提出的，在 3GPP 成立以后将不再使用。

1.2.2 GSM 协议与 3GPP 协议的关系

GSM 协议的最后一个完整版本是 PHASE 2+的 R1998。ETSI 的 SMG 在制定 R1999 时，3GPP 成立，于是 SMG 被解散，R1999 也被移交给 3GPP，由 3GPP 继续完成 R99。所以 R99 是 GSM 与 3G 的衔接版本(R99 已经是 3G)。

1.2.3 R99 与 R00、R4、R5 的关系

在 R99 协议成形的初期，将 R99 看作是 GSM 向 3G 过渡的版本，存在电路交换域的业务；将 R00 作为全 IP 网络版本的代名词。在 2000 年 9 月以后的版本中，就不再使用 R00 这个术语，而改用 Release4、Release5 来替代，也就意味着，在 Rel5 以后的版本都是全 IP 的网络结构。

1.2.4 在 R99 中原来的 GSM01~12 系列的协议与 3GPP 协议之间的关系

应该说，R99 目录中的 01~12 系列协议也是 3GPP 协议的一部分。3GPP 的协议目录是与原 GSM 协议的目录相对应的，如 01 对应于 21 系列，02 对应于 22 系列，……，12 对应于 32 系列。对于转换的协议，系列号也是对应的，如原来 GSM 的 03.02 协议描述了系统框架，相应地，在 3GPP 协议的 23.02 协议中也是描述 r99 的系统框架。大家在看协议时可以按照这个规律去看。

在 R99 中，如果一个协议因为引进 3G 而改变较大，则将其放在 21 系列以后的目录中，如果是基本引用原来的 GSM 协议，则仍将其放在 01~12 系列中。

1.2.5 在 REL4 以后的版本中 41~52 系列的协议与 3GPP 协议之间的关系

41~52 系列是与 01~12 系列相对应的。基本上是将 GSM 的协议直接引用过来，再将协议版本号修改为 4.x.x。

1.2.6 各协议系列的功能

在 21.101 与 01.01 中，有一个所有协议的清单(或一览表)，该文件可以帮助大家迅速地查阅其他协议是什么协议。

在 23.121 中，是一个对 R99 整体框架的一个描述协议，阅读该协议可以对 R99 有一个整体的了解。

下面将各个系列所起的作用大致描述如下：

21、01、41 系列是一个概述性的系列，只是提出了一些要求；

22、02、42 系列是一个概述性的系列，描述了系统的特征与部分业务的，主要是 stage1 阶段的描述；

23、03、43 系列是一个较为详细的描述，比 22 系列要详细，主要是 stage2 阶段的描述；

24、04、44 系列是 UE 与网络之间的信令，包括层 3 信令；

25 系列是无线部分的描述，其中，25.100 系列主要是射频部分的协议，25.200 序列描述物理层协议，25.300 序列描述层二和层三协议，25.400 序列描述了 Iu、Iur、Iub 接口，RNC 是通过 Iub 口与 Node B 相连接的；05 与 45 系列主要是描述 GSM 与 EDGE 的无线特征；

26、06、46 系列定义了各种编码器；

27、07、47 系列定义了数据业务；

08、48 系列主要是定义 BSS 与 CN 之间的接口；28 系列编号为保留编号，暂无，RNS 与 CN 之间的接口在 25 系列中描述；

29、09、49 系列定义了网络间的各种信令；

30、10 系列定义了 3GPP 将来的一些计划与工作安排；例如，MExE 在 R1998 10.57 中就提出了；LCS 在 R1998 10.71 中就提出了；EDGE 的计划在 R1999 10.59 中就提出了。

31、11、51 系列定义了 USIM 与 SIM；

32、12、52 系列定义了操作与维护；

33 系列定义了安全相关的部分；

34 系列定义了相关的测试；

35 系列定义了安全相关的算法，该系列中的算法需要 licence。

13 系列是接入要求，由于该系列的标准只在欧洲适用，所以 3GPP 未将该系列收入协议中。

1.2.7 看协议的步骤

在看协议时，首先应该看 21.101，再看 23.121，然后在根据需要阅读 25 系列的部分协议。在初步掌握整体概貌的情况下，可以直接调到自己所需要阅读的、与自己工作直接相关的协议上。

3GPP 应用了很多其他的协议，主要是 ETSI 的 GSM 协议、ITU-T 的协议、IETF 的 RFC，可以在相关的协议目录中去查找这些协议。

1.2.8 注意协议版本号

3GPP 的协议的版本号分为三部分(如 V3.0.1)，最前面是大版本号，用来标识技术上的重大改变，如果这部分的版本号升号了，表明技术上的改动较大，另，所有版本号大于等于 3 的协议，都是正式协议，否则为草稿协议；中间的版本号用来标识技术上的小改变，如果该部分的版本号升号了，意味着该协议与上一个版本相比，技术有小的改变；最后的版本号用来标识一些错误的修订(包括编辑错误)，如果只是该版本号有所改变，则几乎没有什么必要去重新阅读新版本的协议。

1.2.9 注意协议修改记录

注意修改记录。有时候刚刚看过某一协议，又发现有新版本的协议了，怎么办？其实你没有必要将整个新协议重新看一遍，只需看看协议最后

的修改记录，就能够知道协议在哪些方面有了改变，只需重新阅读做了修改的部分即可。

1.2.10 注意协议附录

协议附录有两种附录，normative 与 informative 目录。对于 normative 附录，该附录是协议的一部分，具有与协议中正文内容同等的意义，是需要执行的标准；对于 informative 附录，该附录只是为了读者理解该协议而附的附录，不是协议标准的一部分，实现时可以不完全遵从。

请正确理解、区分这两种不同性质的附录。

1.2.11 注意协议的类型

目前 3GPP 协议中有两类，一类为 TS xx.yyy，这是技术规范（Technical Specifications）,必须遵守；另一类为 TR xx.yyy，这是技术报告（Technical Reports）,是一些厂家做的技术报告，仅作参考，不一定遵守。

1.3 协议下载

可以到以下站点下载各个系列的协议标准。

http://www.3gpp.org/ftp/Specs/archive/21_series/

第2章 协议查看实例

2.1 2/3G 互操作协议查看实例

在做 23G 互操作时，需要查看 RAB 指派中的一个信元，是 Service Handover，这个信元可能影响到 RNC 是否下发测量控制。

1)、打开 25.413 协议后，找到 9.1.3，看到 RAB ASSIGNMENT REQUEST 消息中有一个 Service Handover 信元，而且他是“O”，代表的是该信元是可选择的，可以带也可以不带。

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>Service Handover	O		9.2.1.41		-	

2)、然后到 9.2.1.41 查看对于 Service Handover 这个信元的具体解释。

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Service Handover	M		ENUMERATED (Handover to GSM should be performed, Handover to GSM should not be performed, Handover to GSM shall not be performed, …)	

如果带上了这个信元，要看信元具体带的是什么值，有 0，1，2 三种可能，对应着三种情况。

Service Handover＝0：Handover to GSM should be performed，意义是切换到 GSM 可以执行；

Service Handover＝1：Handover to GSM should not be performed，切换到 GSM 不应该执行；

Service Handover＝2：Handover to GSM shall not be performed，切换到 GSM 不会执行。

2.2 从 IuB 口信令看码道占用协议查看实例

在 RRC 连接建立过程中，通过 RADIO LINK SETUP REQUEST 消息中的信元可以看出打孔限制参数。

1）、从 25.433 协议中 RADIO LINK SETUP REQUEST 消息中可以看到 Puncture Limit 信元。“M”，表示该信元是必选的。

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>Puncture Limit	M		9.2.1.50		–	

2）、再到 9.2.1.50 看 Puncture Limit 信元的详细解释。

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Puncture Limit			INTEGER (0..15)	Unit: % Range: 40..100 % Step: 4 % 100% means no puncturing

PL 有 0…15 共 16 个选项。

0 代表 PL=40%，可以打孔 60%；

1 代表 PL=44%，可以打孔 56%；

2 代表 PL=48%，可以打孔 52%；

……

14 代表 PL=96%，可以打孔 4%；

15 代表 PL=100%，不可以打孔。

第3章 协议目录

3.1 协议目录

Type	Number	Title	WG Prime	For Publication
TS	21.101	Technical Specifications and Technical Reports for a UTRAN-based 3GPP system	SP	Yes
TS	21.111	USIM and IC card requirements	T3	Yes
TS	21.133	3G security; Security threats and requirements	S3	Yes
TR	21.801	Specification drafting rules	SP	No
TR	21.900	Technical Specification Group working methods	SP	Yes
TR	21.905	Vocabulary for 3GPP Specifications	S1	Yes
TS	22.001	Principles of circuit telecommunication services supported by a Public Land Mobile Network (PLMN)	S1	Yes
TS	22.002	Circuit Bearer Services (BS) supported by a Public Land Mobile Network (PLMN)	S1	Yes
TS	22.003	Circuit Teleservices supported by a Public Land Mobile Network (PLMN)	S1	Yes
TS	22.004	General on supplementary services	S1	Yes
TS	22.011	Service accessibility	S1	Yes
TS	22.016	International Mobile Equipment Identities (IMEI)	S1	Yes
TS	22.022	Personalisation of Mobile Equipment (ME); Mobile functionality specification	S3	Yes
TS	22.024	Description of Charge Advice Information (CAI)	S1	Yes
TS	22.030	Man-Machine Interface (MMI) of the User Equipment (UE)	S1	Yes
TS	22.031	Fraud Information Gathering System (FIGS); Service description; Stage 1	S3	Yes
TS	22.032	Immediate Service Termination (IST); Service description; Stage 1	S3	Yes
TS	22.034	High Speed Circuit Switched Data (HSCSD); Stage 1	S1	Yes
TS	22.038	USIM/SIM Application Toolkit (USAT/SAT); Service description; Stage 1	S1	Yes
TS	22.041	Operator Determined Call Barring	S1	Yes
TS	22.042	Network Identity and Time Zone (NITZ) service description; Stage 1	S1	Yes
TS	22.048	Security mechanisms for the (U)SIM application toolkit; Stage 1	T3	Yes
TS	22.053	Tandem Free Operation (TFO); Service description; Stage 1	S4	Yes
TS	22.057	Mobile Execution Environment (MExE) service description; Stage 1	S1	Yes
TS	22.060	General Packet Radio Service (GPRS); Service description; Stage 1	S1	Yes
TS	22.066	Support of Mobile Number Portability (MNP); Stage 1	S1	Yes
TS	22.067	enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 1	S1	Yes
TS	22.071	Location Services (LCS); Stage 1	S1	Yes
TS	22.072	Call Deflection (CD); Stage 1	S1	Yes
TS	22.076	Noise suppression for the AMR codec; Service description; Stage 1	S4	Yes
TS	22.078	Customized Applications for Mobile network Enhanced Logic (CAMEL);	S1	Yes

Type	Number	Title	WG Prime	For Publication
		Service description; Stage 1		
TS	22.079	Support of optimal routeing; Stage 1	S1	Yes
TS	22.081	Line Identification supplementary services; Stage 1	S1	Yes
TS	22.082	Call Forwarding (CF) Supplementary Services; Stage 1	S1	Yes
TS	22.083	Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 1	S1	Yes
TS	22.084	MultiParty (MPTY) supplementary service; Stage 1	S1	Yes
TS	22.085	Closed User Group (CUG) supplementary services; Stage 1	S1	Yes
TS	22.086	Advice of Charge (AoC) supplementary services; Stage 1	S1	Yes
TS	22.087	User-to-user signalling (UUS); Stage 1	S1	Yes
TS	22.088	Call Barring (CB) supplementary services; Stage 1	S1	Yes
TS	22.090	Unstructured Supplementary Service Data (USSD); Stage 1	S1	Yes
TS	22.091	Explicit Call Transfer (ECT) supplementary service; Stage 1	S1	Yes
TS	22.093	Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1	S1	Yes
TS	22.094	Follow Me service description - Stage 1	S1	Yes
TS	22.096	Name identification supplementary services; Stage 1	S1	Yes
TS	22.097	Multiple Subscriber Profile (MSP) Phase 1; Service description - Stage 1	S1	Yes
TS	22.101	Service aspects; Service principles	S1	Yes
TS	22.105	Services and service capabilities	S1	Yes
TS	22.115	Service Aspects Charging and billing	S1	Yes
TR	22.121	Service aspects; The Virtual Home Environment; Stage 1	S1	Yes
TS	22.127	Service Requirement for the Open Services Access (OSA); Stage 1	S1	Yes
TS	22.129	Handover requirements between UTRAN and GERAN or other radio systems	S1	Yes
TS	22.135	Multicall; Service description; Stage 1	S1	Yes
TS	22.140	Multimedia Messaging Service (MMS); Stage 1	S1	Yes
TS	23.002	Network architecture	S2	Yes
TS	23.003	Numbering, Addressing and Identification	N4	Yes
TS	23.007	Restoration procedures	N4	Yes
TS	23.008	Organisation of subscriber data	N4	Yes
TS	23.009	Handover procedures	N1	Yes
TS	23.011	Technical realization of Supplementary Services	N4	Yes
TS	23.012	Location management procedures	N4	Yes
TS	23.014	Support of Dual Tone Multi Frequency (DTMF) signalling	N1	Yes
TS	23.015	Technical realisation of Operator Determined Barring (ODB)	N4	Yes
TS	23.016	Subscriber data management; Stage 2	N4	Yes
TS	23.018	Basic Call Handling; Technical realization	N4	Yes
TS	23.031	Fraud Information Gathering System (FIGS); Service description; Stage 2	S3	Yes
TS	23.032	Universal Geographical Area Description (GAD)	S2	Yes
TS	23.034	High Speed Circuit Switched Data (HSCSD); Stage 2	N1	Yes
TS	23.035	Immediate Service Termination (IST); Stage 2	S3	Yes
TS	23.038	Alphabets and language-specific information	T2	Yes

Type	Number	Title	WG Prime	For Publication
TR	23.039	Interface Protocols for the Connection of Short Message Service Centers (SMSCs) to Short Message Entities (SMEs)	T2	Yes
TS	23.040	Technical realization of Short Message Service (SMS)	T2	Yes
TS	23.041	Technical realization of Cell Broadcast Service (CBS)	T2	Yes
TS	23.042	Compression algorithm for SMS	T2	Yes
TS	23.048	Security mechanisms for the (U)SIM application toolkit; Stage 2	T3	Yes
TS	23.053	Tandem Free Operation (TFO); Service description; Stage 2	S4	Yes
TS	23.057	Mobile Execution Environment (MExE); Functional description; Stage 2	T2	Yes
TS	23.060	General Packet Radio Service (GPRS) Service description; Stage 2	S2	Yes
TS	23.066	Support of GSM Mobile Number Portability (MNP) stage 2	N4	Yes
TS	23.067	Enhanced Multi-Level Precedence and Pre-emption Service (eMLPP); Stage 2	N4	Yes
TS	23.072	Call Deflection Supplementary Service; Stage 2	N4	Yes
TS	23.078	Customised Applications for Mobile network Enhanced Logic (CAMEL); Stage 2	N2	Yes
TS	23.079	Support of Optimal Routeing (SOR); Technical realization; Stage 2	N4	Yes
TS	23.081	Line Identification supplementary services; Stage 2	N4	Yes
TS	23.082	Call Forwarding (CF) Supplementary Services; Stage 2	N4	Yes
TS	23.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 2	N4	Yes
TS	23.084	MultiParty (MPTY) Supplementary Service; Stage 2	N4	Yes
TS	23.085	Closed User Group (CUG) Supplementary Service; Stage 2	N4	Yes
TS	23.086	Advice of Charge (AoC) Supplementary Service; Stage 2	N4	Yes
TS	23.087	User-to-User Signalling (UUS) supplementary service; Stage 2	N4	Yes
TS	23.088	Call Barring (CB) Supplementary Service; Stage 2	N4	Yes
TS	23.090	Unstructured Supplementary Service Data (USSD); Stage 2	N4	Yes
TS	23.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 2	N4	Yes
TS	23.093	Technical realization of Completion of Calls to Busy Subscriber (CCBS); Stage 2	N4	Yes
TS	23.094	Follow Me Stage 2	N4	Yes
TS	23.096	Name Identification Supplementary Service; Stage 2	N4	Yes
TS	23.097	Multiple Subscriber Profile (MSP) Phase 1; Stage 2	N4	Yes
TS	23.101	General UMTS Architecture	S2	Yes
TS	23.107	Quality of Service (QoS) concept and architecture	S2	Yes
TS	23.108	Mobile radio interface layer 3 specification core network protocols; Stage 2 (structured procedures)	N1	Yes
TS	23.110	UMTS Access Stratum Services and Functions	S2	Yes
TS	23.116	Super-Charger technical realization; Stage 2	N4	Yes
TS	23.119	Gateway Location Register (GLR); Stage2	N4	Yes
TS	23.122	Non-Access-Stratum functions related to Mobile Station (MS) in idle mode	N1	Yes
TS	23.127	Virtual Home Environment (VHE) / Open Service Access (OSA); Stage 2	S2	Yes

Type	Number	Title	WG Prime	For Publication
TS	23.135	Multicall supplementary service; Stage 2	N4	Yes
TS	23.140	Multimedia Messaging Service (MMS); Functional description; Stage 2	T2	Yes
TS	23.146	Technical realisation of facsimile Group 3 service - non-transparent	N3	Yes
TS	23.153	Out of Band Transcoder Control; Stage 2	N4	Yes
TS	23.205	Bearer-independent circuit-switched core network; Stage 2	N4	Yes
TS	23.221	Architectural requirements	S2	Yes
TS	23.227	Application and user interaction in the UE; Principles and specific requirements	T2	Yes
TS	23.271	Location Services (LCS); Functional description; Stage 2	S2	Yes
TR	23.873	Feasibility study fro transport and control separation in the PS CN domain	S2	No
TR	23.908	Technical report on Pre-Paging	N4	Yes
TR	23.909	Technical report on the Gateway Location Register	N4	Yes
TR	23.910	Circuit switched data bearer services	N3	Yes
TR	23.911	Technical report on Out-of-band transcoder control	N4	Yes
TR	23.912	Technical report on Super-Charger	N4	Yes
TR	23.930	Iu Principles	S2	Yes
TS	24.002	GSM-UMTS Public Land Mobile Network (PLMN) Access Reference Configuration	N1	Yes
TS	24.007	Mobile radio interface signalling layer 3; General Aspects	N1	Yes
TS	24.008	Mobile radio interface Layer 3 specification; Core network protocols; Stage 3	N1	Yes
TS	24.010	Mobile Radio Interface Layer 3 - Supplementary Services Specification - General Aspects	N4	Yes
TS	24.011	Point-to-Point (PP) Short Message Service (SMS) Support on Mobile Radio Interface	N1	Yes
TS	24.022	Radio Link Protocol (RLP) for circuit switched bearer and teleservices	N3	Yes
TS	24.030	Location Services (LCS); Supplementary service operations; Stage 3	N4	Yes
TS	24.067	Enhanced Multi-Level Precedence and Pre-emption service (eMLPP); Stage 3	N4	Yes
TS	24.072	Call Deflection Supplementary Service; Stage 3	N4	Yes
TS	24.080	Mobile radio Layer 3 supplementary service specification; Formats and coding	N4	Yes
TS	24.081	Line Identification Supplementary Service; Stage 3	N4	Yes
TS	24.082	Call Forwarding supplementary service; Stage 3	N4	Yes
TS	24.083	Call Waiting (CW) and Call Hold (HOLD) Supplementary Service; Stage 3	N4	Yes
TS	24.084	MultiParty (MPTY) Supplementary Service; Stage 3	N4	Yes
TS	24.085	Closed User Group (CUG) Supplementary Service; Stage 3	N4	Yes
TS	24.086	Advice of Charge (AoC) Supplementary Service; Stage 3	N4	Yes
TS	24.087	User-to-User Signalling (UUS); Stage 3	N4	Yes
TS	24.088	Call Barring (CB) Supplementary Service; Stage 3	N4	Yes
TS	24.090	Unstructured Supplementary Service Data (USSD); Stage 3	N4	Yes

Type	Number	Title	WG Prime	For Publication
TS	24.091	Explicit Call Transfer (ECT) Supplementary Service; Stage 3	N4	Yes
TS	24.093	Call Completion to Busy Subscriber (CCBS); Stage 3	N4	Yes
TS	24.096	Name Identification Supplementary Service; Stage 3	N4	Yes
TS	24.135	Multicall supplementary service; Stage 3	N4	Yes
TS	25.101	UE Radio transmission and reception (FDD)	R4	Yes
TS	25.102	UTRA (UE) TDD; Radio transmission and reception	R4	Yes
TS	25.104	UTRA (BS) FDD; Radio transmission and reception	R4	Yes
TS	25.105	UTRA (BS) TDD: Radio transmission and reception	R4	Yes
TS	25.106	UTRA Repeater; Radio transmission and reception	R4	Yes
TS	25.113	Base station and repeater electromagnetic compatibility (EMC)	R4	Yes
TS	25.123	Requirements for support of radio resource management (TDD)	R4	Yes
TS	25.133	Requirements for support of radio resource management (FDD)	R4	Yes
TS	25.141	Base station conformance testing (FDD)	R4	Yes
TS	25.142	Base station conformance testing (TDD)	R4	Yes
TS	25.143	UTRA repeater; Conformance testing	R4	Yes
TS	25.201	Physical layer - general description	R1	Yes
TS	25.211	Physical channels and mapping of transport channels onto physical channels (FDD)	R1	Yes
TS	25.212	Multiplexing and channel coding (FDD)	R1	Yes
TS	25.213	Spreading and modulation (FDD)	R1	Yes
TS	25.214	Physical layer procedures (FDD)	R1	Yes
TS	25.215	Physical layer; Measurements (FDD)	R1	Yes
TS	25.221	Physical channels and mapping of transport channels onto physical channels (TDD)	R1	Yes
TS	25.222	Multiplexing and channel coding (TDD)	R1	Yes
TS	25.223	Spreading and modulation (TDD)	R1	Yes
TS	25.224	Physical layer procedures (TDD)	R1	Yes
TS	25.225	Physical layer; Measurements (TDD)	R1	Yes
TS	25.301	Radio Interface Protocol Architecture	R2	Yes
TS	25.302	Services provided by the physical layer	R2	Yes
TS	25.303	Interlayer procedures in Connected Mode	R2	Yes
TS	25.304	UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode	R2	Yes
TS	25.305	User Equipment (UE) positioning in Universal Terrestrial Radio Access Network (UTRAN); Stage 2	R2	Yes
TS	25.306	UE Radio Access capabilities definition	R2	Yes
TS	25.307	Requirements on UEs supporting a release-independent frequency band	R2	Yes
TS	25.321	Medium Access Control (MAC) protocol specification	R2	Yes
TS	25.322	Radio Link Control (RLC) protocol specification	R2	Yes
TS	25.323	Packet Data Convergence Protocol (PDCP) specification	R2	Yes

Type	Number	Title	WG Prime	For Publication
TS	25.324	Broadcast/Multicast Control (BMC)	R2	Yes
TS	25.331	Radio Resource Control (RRC) protocol specification	R2	Yes
TS	25.401	UTRAN overall description	R3	Yes
TS	25.402	Synchronisation in UTRAN Stage 2	R3	Yes
TS	25.410	UTRAN Iu Interface: General Aspects and Principles	R3	Yes
TS	25.411	UTRAN Iu interface layer 1	R3	Yes
TS	25.412	UTRAN Iu interface signalling transport	R3	Yes
TS	25.413	UTRAN Iu interface Radio Access Network Application Part (RANAP) signalling	R3	Yes
TS	25.414	UTRAN Iu interface data transport & transport signalling	R3	Yes
TS	25.415	UTRAN Iu interface user plane protocols	R3	Yes
TS	25.419	UTRAN Iu-BC interface: Service Area Broadcast Protocol (SABP)	R3	Yes
TS	25.420	UTRAN Iur Interface: General Aspects and Principles	R3	Yes
TS	25.421	UTRAN Iur interface Layer 1	R3	Yes
TS	25.422	UTRAN Iur interface signalling transport	R3	Yes
TS	25.423	UTRAN Iur interface Radio Network Subsystem Application Part (RNSAP) signaling	R3	Yes
TS	25.424	UTRAN Iur interface data transport & transport signalling for CCH data streams	R3	Yes
TS	25.425	UTRAN Iur interface user plane protocols for CCH data streams	R3	Yes
TS	25.426	UTRAN Iur and Iub interface data transport & transport signalling for DCH data streams	R3	Yes
TS	25.427	UTRAN Iur and Iub interface user plane protocols for DCH data streams	R3	Yes
TS	25.430	UTRAN Iub Interface: General Aspects and Principles	R3	Yes
TS	25.431	UTRAN Iub interface Layer 1	R3	Yes
TS	25.432	UTRAN Iub interface: signalling transport	R3	Yes
TS	25.433	UTRAN Iub interface NBAP signaling	R3	Yes
TS	25.434	UTRAN Iub interface data transport & transport signalling for CCH data streams	R3	Yes
TS	25.435	UTRAN Iub interface user plane protocols for CCH data streams	R3	Yes
TS	25.442	UTRAN implementation-specific O&M transport	R3	Yes
TR	25.832	Manifestations of Handover and SRNS relocation	R3	No
TR	25.834	UTRA TDD low chip rate option; Radio protocol aspects	R2	No
TR	25.836	Node B synchronization for TDD	R1	No
TR	25.838	Node B Synchronisation for TDD (Iub/Iur aspects)	R3	No
TR	25.840	Terminal power saving features	R1	No
TR	25.841	DSCH power control improvement in soft handover	R1	No
TR	25.842	Smart antenna	R1	No
TR	25.843	1,28 Mcps TDD UE Radio Access Capabilities	R2	No
TR	25.844	Radio acces bearer support enhancements	R2	No

Type	Number	Title	WG Prime	For Publication
TR	25.847	UE positioning enhancements	R2	No
TR	25.848	Physical Layer Aspects of UTRA High Speed Downlink Packet Access	R1	No
TR	25.849	DSCH power control improvement in soft handover	R3	No
TR	25.850	UE positioning in UTRAN Iub/Iur protocol aspects	R3	No
TR	25.851	RAB Quality of Service (QoS) Renegotiation over Iu	R3	No
TR	25.853	Delay budget within the access stratum	R3	No
TR	25.921	Guidelines and principles for protocol description and error handling	R2	Yes
TR	25.922	Radio Resource Management Strategies	R2	Yes
TR	25.928	1,28 Mcps functionality for UTRA TDD physical layer	R1	Yes
TR	25.931	UTRAN Functions, examples on signalling procedures	R3	Yes
TR	25.934	AAL2 QoS optimization	R3	Yes
TR	25.935	RRM optimization	R3	Yes
TR	25.936	Handover for realtime services from PS-domain	R3	Yes
TR	25.937	UTRAN TDD low chiprate	R3	Yes
TR	25.942	RF system scenarios	R4	Yes
TR	25.943	Deployment aspects	R4	Yes
TR	25.944	Channel coding and multiplexing examples	R1	Yes
TR	25.945	RF requirements for low chip rate TDD option	R4	Yes
TR	25.946	RAB Quality of Service (QoS) Negotiation over Iu	R3	Yes
TR	25.950	UTRA high speed downlink packet access	R2	Yes
TR	25.953	TrFO/TFO	R3	Yes
TR	25.954	Migration to modification procedure	R3	Yes
TR	25.956	UTRA repeater: Planning guidelines and system analysis	R4	Yes
TR	25.993	Typical examples of Radio Access Bearers (RABs) and Radio Bearers (RBs) supported by Universal Terrestrial Radio Access (UTRA)	R2	Yes
TS	26.071	AMR speech Codec; General description	S4	Yes
TS	26.073	AMR speech Codec; C-source code	S4	Yes
TS	26.074	AMR speech Codec; Test sequences	S4	Yes
TS	26.077	Minimum performance requirements for noise suppresser application to the Adaptive Multi-Rate (AMR) speech encoder	S4	Yes
TS	26.090	AMR speech Codec; Transcoding Functions	S4	Yes
TS	26.091	AMR speech Codec; Error concealment of lost frames	S4	Yes
TS	26.092	AMR speech Codec; comfort noise for AMR Speech Traffic Channels	S4	Yes
TS	26.093	AMR speech Codec; Source Controlled Rate operation	S4	Yes
TS	26.094	AMR Speech Codec; Voice Activity Detector for AMR Speech Traffic Channels	S4	Yes
TS	26.101	Mandatory speech codec speech processing functions; Adaptive Multi-Rate (AMR) speech codec frame structure	S4	Yes
TS	26.102	Adaptive Multi-Rate (AMR) speech codec; Interface to Iu and Uu	S4	Yes
TS	26.103	Speech codec list for GSM and UMTS	S4	Yes

Type	Number	Title	WG Prime	For Publication
TS	26.104	ANSI-C code for the floating-point Adaptive Multi-Rate (AMR) speech codec	S4	Yes
TS	26.110	Codec for circuit switched multimedia telephony service; General description	S4	Yes
TS	26.111	Codec for Circuit switched Multimedia Telephony Service; Modifications to H.324	S4	Yes
TS	26.115	Echo control for speech and multi-media services	S4	Yes
TS	26.131	Terminal acoustic characteristics for telephony; Requirements	S4	Yes
TS	26.132	Narrow band (3,1 kHz) speech and video telephony terminal acoustic test specification	S4	Yes
TS	26.233	End-to-end transparent streaming service; General description	S4	Yes
TS	26.234	Transparent end-to-end transparent streaming service; Protocols and codecs	S4	Yes
TR	26.901	AMR wideband speech codec; Feasibility study report	S4	Yes
TR	26.911	Codec for Circuit switched Multimedia Telephony Service;Terminal Implementor's Guide	S4	Yes
TR	26.912	Codec for Circuit switched Multimedia Telephony Service; Quantitative performance evaluation of H.324 Annex C over 3G	S4	Yes
TR	26.975	Performance characterization of the Adaptive Multi-Rate (AMR) speech codec	S4	Yes
TR	26.978	Results of the AMR noise suppression selection phase	S4	Yes
TS	27.001	General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)	N3	Yes
TS	27.002	Terminal Adaptation Functions (TAF) for services using Asynchronous bearer capabilities	N3	Yes
TS	27.003	Terminal Adaptation Functions (TAF) for services using Synchronous bearer capabilities	N3	Yes
TS	27.005	Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)	T2	Yes
TS	27.007	AT command set for 3G User Equipment (UE)	T2	Yes
TS	27.010	Terminal Equipment to User Equipment (TE-UE) multiplexer protocol	T2	Yes
TS	27.060	Packet domain; Mobile Station (MS) supporting Packet Switched services	N3	Yes
TS	27.103	Wide Area Network Synchronization	T2	Yes
TR	27.901	Report on Terminal Interfaces - An Overview	T2	Yes
TR	27.903	Discussion of synchronization standards	T2	Yes
TS	28.062	Inband Tandem Free Operation (TFO) of speech codecs; Service description; Stage 3	S4	Yes
TS	29.002	Mobile Application Part (MAP) specification	N4	Yes
TS	29.007	General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)	N3	Yes
TS	29.010	Information Element Mapping between Mobile Station - Base Station System (MS - BSS) and Base Station System - Mobile-services Switching Centre (BSS - MCS) Signalling Procedures and the Mobile Application Part (MAP)	N4	Yes

Type	Number	Title	WG Prime	For Publication
TS	29.011	Signalling Interworking for Supplementary Services	N4	Yes
TS	29.013	Signalling interworking between ISDN supplementary services Application Service Element (ASE) and Mobile Application Part (MAP) protocols	N4	Yes
TS	29.016	Serving GPRS Support Node SGSN - Visitors Location Register (VLR); Gs Interface Network Service Specification	N1	Yes
TS	29.018	General Packet Radio Service (GPRS); Serving GPRS Support Node (SGSN) - Visitors Location Register (VLR); Gs interface layer 3 specification	N1	Yes
TS	29.060	General Packet Radio Service (GPRS); GPRS Tunnelling Protocol (GTP) across the Gn and Gp interface	N4	Yes
TS	29.061	Interworking between the Public Land Mobile Network (PLMN) supporting packet based services and Packet Data Networks (PDN)	N3	Yes
TS	29.078	Customised Applications for Mobile network Enhanced Logic (CAMEL); CAMEL Application Part (CAP) specification	N2	Yes
TS	29.108	Application of the Radio Access Network Application Part (RANAP) on the E-interface	R3	Yes
TS	29.119	GPRS Tunnelling Protocol (GTP) specification for Gateway Location Register (GLR)	N4	Yes
TS	29.120	Mobile Application Part (MAP) specification for Gateway Location Register (GLR); Stage 3	N4	Yes
TS	29.198-01	Open Service Access (OSA) Application Programming Interface (API); Part 1: Overview	N5	Yes
TS	29.198-02	Open Service Access (OSA) Application Programming Interface (API); Part 2: Common data	N5	Yes
TS	29.198-03	Open Service Access (OSA) Application Programming Interface (API); Part 3: Framework	N5	Yes
TS	29.198-04	Open Service Access (OSA) Application Programming Interface (API); Part 4: Call control	N5	Yes
TS	29.198-05	Open Service Access (OSA) Application Programming Interface (API); Part 5: Generic user interaction	N5	Yes
TS	29.198-06	Open Service Access (OSA) Application Programming Interface (API); Part 6: Mobility	N5	Yes
TS	29.198-07	Open Service Access (OSA) Application Programming Interface (API); Part 7: Terminal capabilities	N5	Yes
TS	29.198-08	Open Service Access (OSA) Application Programming Interface (API); Part 8: Data session control	N5	Yes
TS	29.198-11	Open Service Access (OSA) Application Programming Interface (API); Part 11: Account management	N5	Yes
TS	29.198-12	Open Service Access (OSA) Application Programming Interface (API); Part 12: Charging	N5	Yes
TS	29.202	Signalling System No. 7 (SS7) signaling transport in core network; Stage 3	N4	Yes
TS	29.205	Application of Q.1900 series to bearer-independent circuit-switched core	N4	Yes

Type	Number	Title	WG Prime	For Publication
		network architecture; Stage 3		
TS	29.232	Media Gateway Controller (MGC) - Media Gateway (MGW) interface; Stage 3	N4	Yes
TS	29.414	Core network Nb data transport and transport signalling	N3	Yes
TS	29.415	Core network Nb interface user plane protocols	N3	Yes
TR	29.994	Recommended infrastructure measures to overcome specific Mobile Station (MS) and User Equipment (UE) faults	N1	Yes
TR	29.998-01	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 1: General Issues on API Mapping	N5	Yes
TR	29.998-04-1	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 4: Call Control Service Mapping; Subpart 1: API to CAP Mapping	N5	Yes
TR	29.998-05-1	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 5: User Interaction Service Mapping; Subpart 1: API to CAP Mapping	N5	Yes
TR	29.998-05-4	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 5: User Interaction Service Mapping; Subpart 4: API to SMS Mapping	N5	Yes
TR	29.998-06	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 6: User Location and User Status Service Mapping to MAP	N5	Yes
TR	29.998-08	Open Service Access (OSA) Application Programming Interface (API) Mapping for Open Service Access; Part 8: Data Session Control Service Mapping to CAP	N5	Yes
TR	30.902	Guidelines for the modification of the Mobile Application Part (MAP)	N4	No
TS	31.048	Test specification for security mechanisms for the (U)SIM application toolkit	T3	Yes
TS	31.101	UICC-terminal interface; Physical and logical characteristics	T3	Yes
TS	31.102	Characteristics of the USIM application	T3	Yes
TS	31.110	Numbering system for telecommunication IC card applications	T3	Yes
TS	31.111	Universal Subscriber Identity Module Application Toolkit (USAT)	T3	Yes
TS	31.120	UICC-terminal interface; Physical, electrical and logical test specification	T3	Yes
TS	31.121	UICC-terminal interface; Universal Subscriber Identity Module (USIM) application test specification	T3	Yes
TS	31.122	Universal Subscriber Identity Module (USIM) conformance test specification	T3	Yes
TS	32.101	Telecommunication management; Principles and high level requirements	S5	Yes
TS	32.102	Telecommunication management; Architecture	S5	Yes
TS	32.111-1	Telecommunication management; Fault Management; Part 1: 3G fault management requirements	S5	Yes
TS	32.111-2	Telecommunication management; Fault Management; Part 2: Alarm Integration Reference Point (IRP): Information Service	S5	Yes
TS	32.111-3	Telecommunication management; Fault Management; Part 3: Alarm	S5	Yes

Type	Number	Title	WG Prime	For Publication
		Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) solution set		
TS	32.111-4	Telecommunication management; Fault Management; Part 4: Alarm Integration Reference Point (IRP): Common Management Information Protocol (CMIP) solution set	S5	Yes
TS	32.200	Telecommunication management; Charging management; Charging principles	S5	Yes
TS	32.205	Telecommunication management; Charging management; Charging data description for the Circuit Switched (CS) domain	S5	Yes
TS	32.215	Telecommunication management; Charging management; Charging data description for the Packet Switched (PS) domain	S5	Yes
TS	32.235	Telecommunication management; Charging management; Charging data description for application services	S5	Yes
TS	32.300	Telecommunication management; Configuration Management (CM); Name convention for Managed Objects	S5	Yes
TS	32.301	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Requirements	S5	Yes
TS	32.302	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Information Service	S5	Yes
TS	32.303	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) solution set	S5	Yes
TS	32.304	Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Common Management Information Protocol (CMIP) solution set	S5	Yes
TS	32.311	Telecommunication management; Generic Integration Reference Point (IRP) management; Requirements	S5	Yes
TS	32.312	Telecommunication management; Generic Integration Reference Point (IRP) management; Information service	S5	Yes
TS	32.401	Telecommunication management; Performance Management (PM); Concept and requirements	S5	Yes
TS	32.403	Telecommunication management; Performance Management (PM); Performance measurements - UMTS and combined UMTS/GSM	S5	Yes
TS	32.600	Telecommunication management; Configuration Management (CM); Concept and high-level requirements	S5	Yes
TS	32.601	Telecommunication management; Configuration Management (CM); Basic Configuration Management (CM) Integration Reference Point (IRP): requirements	S5	Yes
TS	32.602	Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP): Information service	S5	Yes
TS	32.603	Telecommunication management; Configuration Management (CM); Basic	S5	Yes

Type	Number	Title	WG Prime	For Publication
		CM Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) solution set		
TS	32.604	Telecommunication management; Configuration Management (CM); Basic CM Integration Reference Point (IRP) Common Management Information Protocol (CMIP) solution set	S5	Yes
TS	32.611	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Requirements	S5	Yes
TS	32.612	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Information service	S5	Yes
TS	32.613	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) solution set	S5	Yes
TS	32.614	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): Common Management Information Protocol (CMIP) solution set	S5	Yes
TS	32.615	Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): eXtensible Markup Language (XML) file format definition	S5	Yes
TS	32.621	Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): requirements	S5	Yes
TS	32.622	Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Network Resource Model (NRM)	S5	Yes
TS	32.623	Telecommunication management; Configuration Management (CM); Generic network resources Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) solution set	S5	Yes
TS	32.624	Telecommunication management; Configuration Management (CM); Generic network resources: Integration Reference Point (IRP): Common Management Information Protocol (CMIP) solution set	S5	Yes
TS	32.631	Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): Requirements	S5	Yes
TS	32.632	Telecommunication management; Configuration Management (CM); Core Network Resources Integration Reference Point (IRP): Network Resource Model (NRM)	S5	Yes
TS	32.633	Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) solution set	S5	Yes
TS	32.634	Telecommunication management; Configuration Management (CM); Core network resources Integration Reference Point (IRP): Common Management Information Protocol (CMIP) solution set	S5	Yes
TS	32.641	Telecommunication management; Configuration Management (CM); UTRAN	S5	Yes

Type	Number	Title	WG Prime	For Publication
		network resources Integration Reference Point (IRP): requirements		
TS	32.642	Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): Network Resource Model (NRM)	S5	Yes
TS	32.643	Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) solution set	S5	Yes
TS	32.644	Telecommunication management; Configuration Management (CM); UTRAN network resources Integration Reference Point (IRP): Common Management Information Protocol (CMIP) solution set	S5	Yes
TR	32.800	Telecommunication management; Management level procedures and interaction with UTRAN	S5	No
TS	33.102	3G security; Security architecture	S3	Yes
TS	33.103	3G security; Integration guidelines	S3	Yes
TS	33.105	Cryptographic Algorithm requirements	S3	Yes
TS	33.106	Lawful interception requirements	S3	Yes
TS	33.107	3G security; Lawful interception architecture and functions	S3	Yes
TS	33.120	Security Objectives and Principles	S3	Yes
TS	33.200	3G Security; Network Domain Security (NDS); Mobile Application Part (MAP) application layer security	S3	Yes
TR	33.901	Criteria for cryptographic Algorithm design process	S3	Yes
TR	33.902	Formal Analysis of the 3G Authentication Protocol	S3	Yes
TR	33.903	Access Security for IP based services	S3	Yes
TR	33.908	3G Security; General report on the design, specification and evaluation of 3GPP standard confidentiality and integrity algorithms	S3	Yes
TR	33.909	3G Security; Report on the design and evaluation of the MILENAGE algorithm set; Deliverable 5: An example algorithm for the 3GPP authentication and key generation functions	S3	Yes
TS	34.108	Common test environments for User Equipment (UE) conformance testing	T1	Yes
TS	34.109	Terminal logical test interface; Special conformance testing functions	R2	Yes
TS	34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)	T1	Yes
TS	34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)	T1	Yes
TS	34.123-1	User Equipment (UE) conformance specification; Part 1: Protocol conformance specification	T1	Yes
TS	34.123-2	User Equipment (UE) conformance specification; Part 2: Implementation conformance statement (ICS) specification	T1	Yes
TS	34.123-3	User Equipment (UE) conformance specification; Part 3: Abstract test suites (ATSs)	T1	Yes
TS	34.124	Electromagnetic compatibility (EMC) requirements for Mobile terminals and	R4	Yes

Type	Number	Title	WG Prime	For Publication
		ancillary equipment		
TR	34.910	Identification of test requirements for regulatory purposes in different regions/countries	T1	Yes
TR	34.926	Table of international EMC requirements	R4	Yes
TS	35.201	Specification of the 3GPP confidentiality and integrity algorithms; Document 1: f8 and f9 specifications	S3	Yes
TS	35.202	Specification of the 3GPP confidentiality and integrity algorithms; Document 2: Kasumi algorithm specification	S3	Yes
TS	35.203	Specification of the 3GPP confidentiality and integrity algorithms; Document 3: Implementors' test data	S3	Yes
TS	35.204	Specification of the 3GPP confidentiality and integrity algorithms; Document 4: Design conformance test data	S3	Yes
TS	35.205	3G Security; Specification of the MILENAGE Algorithm Set: An example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 1: General	S3	Yes
TS	35.206	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 2: Algorithm specification	S3	Yes
TS	35.207	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 3: Implementors’ test data	S3	Yes
TS	35.208	3G Security; Specification of the MILENAGE algorithm set: An example algorithm Set for the 3GPP Authentication and Key Generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 4: Design conformance test data	S3	Yes
TR	35.909	3G Security; Specification of the MILENAGE algorithm set: an example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 5: Summary and results of design and evaluation	S3	Yes