6. Appendix

6.1 Recommended Documents and Standards:

3G TS 23-110	UMTS Access Stratum Services and Functions
3G TS 25.301	Radio Interface Protocol Architecture
3G TS 25.321	Medium Access Control (MAC) Protocol Specification
3G TS 25.322	Radio Link Control (RLC) Protocol Specification
3G TS 25.323	Packet Data Convergence Protocol (PDCP) protocol
3G TS 25.324	Radio Interface for Broadcast/Multicast Services
3G TS 25.331	Radio Resource Control (RRC) Protocol Specification
3G TS 25.401	UTRAN Overall Description
3G TS 25.410	UTRAN Iu Interface: General Aspects and Principles
3G TS 25.411	UTRAN Iu interface Layer 1
3G TS 25.413	UTRAN Iu Interface: RANAP Signaling
3G TS 25.420	UTRAN Iur Interface: General Aspects and Principles
3G TS 25.423	UTRAN Iur interface RNSAP Signaling
3G TS 25.430	UTRAN Iub Interface: General Aspects and Principles
3G TS 25.433	UTRAN Iub interface NBAP Signaling
3G TS 29.061	GPRS Tunneling protocol (GPT) across the Gn and Gp interface CCITT Rec. E.880 Field data collection and evaluation on the performance of equipment, network, and services
ETSI ETR 021	Advanced Testing Methods (ATM); Tutorial on protocol conformance testing (Especially OSI standards and profiles) (ETR/ATM-1002)
ETSI GSM 12.04	Digital cellular telecommunication system (Phase 2); Performance data measurements
IETF M3UA	G. Sidebottom et al, "SS7 MTP3-User Adaptation Layer (M3UA draft-ietf-sigtran-m3ua-02.txt (Work In Progress), IETF, 10 March 2000
IETF SCTP	R. Stewart et al, "Simple Control Transmission Protocol," draft-ieft-sigtran-sctp-v0.txt (Work In Progress), IETF, September 1999
IETF RFC 791	Internet Protocol
IETF RFC 768	User Datagram Protocol
IETF RFC 1483	Multim Protocol Encapsulation over ATM Adaptation Layer 5
IETF RFC 2225	Classical IP and ARP over ATM
IETF RFC 2460	"Internet Protocol, Version 6 (IPv6) Specification."

ITU-T I.361	B-ISDN ATM layer specification.
ITU-T I.363.2	B-ISDN ATM Adaptation Layer Type 2
ITU-T I.363.5	B-ISDN ATM Adaptation Layer Type 5
ITU-T Q.711	Functional description of the Signaling connection control part
ITU-T Q.712	Definition and function of Signaling connection control part messages
ITU-T Q.713	Signaling connection control part formats and codes
ITU-T Q.714	Signaling connection control part procedures
ITU-T Q.715	Signaling connection control part user guide
ITU-T Q.716	Signaling Connection Control Part (SCCP) performance
ITU-T Q.2100	B-ISDN Signaling ATM Adaptation Layer (SAAL) - overview description.
ITU-T Q.2110	B-ISDN ATM Adaptation Layer - Service Specific Connection Oriented Protocol (SSCOP).
ITU-T Q.2130	B-ISDN Signaling ATM Adaptation Layer - Service Specific Coordination Function for Support of Signaling at the User Network Interface (SSCF at UNI)
ITU-T Q.2140	B-ISDN ATM adaptation layer - Service Specific Co-ordination Function for Signaling at the Network Node Interface (SSCF AT NNI).
ITU-T Q.2150.1	B-ISDN ATM Adaptation Layer-Signaling Transport Converter for the MTP3b
ITU-T Q.2150.2	AAL Type 2 Signalling Transport Converter on SSCOP (Draft)
ITU-T Q.2210	Message transfer part level 3 functions and messages using the services of ITU-T Recommendation Q.2140.
ITU-T Q.2630.1	AAL type 2 Signaling Protocol (Capability Set 1)

6.2 Glossary:

1G	First Generation (Mobile Communications)
2G	Second Generation (Mobile Communications)
3G	Third Generation (Mobile Communications)
3GPP	Third Generation Partnership Project (of ETSI)
8PSK	Eight phase Shift Keying
A	A interface
AAL	ATM Adaptive Layer
AAL2	ATM Adaptation Layer Type 2
AAL5	ATM Adaptation Layer Type 5
Abis	Abis interface
AC	Authentication Center
ALCAP	Access Link Control Application Part
AMPS	Advanced Mobile Phone Service
AMR	Adaptive Multi-Rate (speech codec)
ANSI T1	Standards Committee T1 Telecommunication of the American National Standards Institute
ARIB/TTC	Association of Radio Industries and Business/Telecommunication Technology Committee
ASN.1	Abstract Syntax Notation One
ATM	Asynchronous Transfer Mode
AuC	Authentication Center
BEC	Backward Error Correction
BMC	Broadcast/Multicast Control
BSC	Base Station Controller
BSS	Base Station Subsystem
BTS	Base Transceiver Station
CAMEL	Customized Application for Mobile Enhanced Logic
CAP	CAMEL Application Part
CATT	China Academy of Telecommunication Technology
CBR	Constant Bit Rate (data stream)
CC	Call Control
CCITT	Comité Consultatif International Téléphonique et Telecommunication
CCS7	Common Control Signaling System No 7
CDMA	Code Division Multiple Access

CDMA2000	3rd Generation Code Division Multiple Access
CM	Call Management protocols
CN	Core Network
CRNC	Controlling RNC (Radio Network Controller)
CS	Circuit Switched
CS-CN	Circuit Switched Core Network
CSE	CAMEL Service Environment
CT	Conformance Test
D-AMPS	Digital AMPS
DCH	Dedicated Channel
DECT	Digital Enhanced Cordless Telephone
DL	Downlink
DPC	Destination Point Code
DRNC	Drift Radio Network Controller
DRNS	Drift Radio Network Subsystem
DTE	Data Terminal Equipment
EDGE	Enhanced Data Rates for GSM Evolution
EFR	Enhanced Full Rate (speech codec)
EIR	Equipment Identity Register
ESE	Emulation Scenario Editor
ETSI	European Telecommunication Standards Institute
FDD	Frequency Division Duplex
FDMA	Frequency Division Multiple Access
FEC	Forward Error Correction
FER	Frame Error Rate
GGSN	Gateway GPRS Support Node
GMM	GPRS Mobility Management (protocols)
GMSC	Gateway MSC
GMSK	Gaussian Minimum Shift Keying
GPRS	General Packet Radio Service
GSM	Global System for Mobile Communication
GSM-R	GSM Railway
gsmSCF	GSM Service Control Function
gsmSSF	GSM Service Switching Function
GTP	GPRS Tunneling Protocol
GTP-C	GTP Control

GTP-U	GTP User		MCE	Multi-protocol Encapsulation
HLR	Home Location Register		MDTP	Multi Network Datagram Transmission Protocol
HO/HoV	Handover		ME	Mobile Equipment
HSCSD	High Speed Circuit Switched Data		MM	Mobility Management (protocols)
ICO	Intermediate Circular Orbits		MSC	Mobile Services Switching Center, Message Sequence Chart
IETF	Internet Engineering Task Force			
IMEI	International Mobile Equipment Identification		MSS	Mobile Satellite System
IMT-2000	International Mobile Telecommunications 2000		MT	Mobile Telephone
IMUN	International Mobile User Number		MTP	Message Transfer Part
IN	Intelligent Network		MTP3b	Message Transfer Part level 3 (broadband) for Q.2140
IP	Internet Protocol		NAS	Non Access Stratum
IPv4	IP version 4		NBAP	Node B Application Protocol
IPv6	IP version 6		NE	Network Elements
IS-95	Interim Standard ´95		NMT	Nordic Mobile Telephone
ISDN	Integrated Services Digital Network		NNI	Network-Node Interface
ISP	Internet Service Provider		Node B	UMTS Base Station
ISUP	ISDN User Part		NRT	Non-Real Time
ITU	International Telecommunication Union		NSS	Network Switching Subsystem
ITUN	SS7 ISUP Tunneling		O&M	Operation and Maintenance
Iu	UTRAN interface between RNC and CN		OMC	Operation and Maintenance Center
Iub	UTRAN interface between Node B and RNC		OSA	Open Service Architecture
Iu-CS	UTRAN interface between RNC and the circuit switched domain of the CN		OSS	Operation Subsystem
			PDC	Personal Digital Communication
Iu-PS	UTRAN interface between RNC and the packet switched domain of the CN		PDCP	Packet Data Convergence Protocol
			PDH	Plesiochronous Digital Hierarchy
Iur	UTRAN interface between two RNCs		PDN	Packet Data Network
IUT	Implementation Under Test		PDU	Protocol Data Unit
IWF	Interworking Function		PLMN	Public Land Mobile Network
kbps	kilobits per second		PMR	Private Mobile Radio
LLC Relay	Logical Link Control - Relay		PS	Packet Switched
MAC	Medium Access Control		PS-CN	Public Switched Core Network
MAP	Mobile Application Part		PSTN	Public Switched Telephone Network
Mbps	Megabits per second		QoS	Quality of Service (ATM network channels)
MBS	Message Building System		QPSK	Quadrature Phase Shift Keying (or, Quaternary Phase Shift Keying)
MC	Multi-Carrier			
MC-CDMA	Multi-Carrier CDMA		RAB	Radio Access Bearer

RAN	Radio Access Network
RANAP	Radio Access Network Application Part
RLC	Radio Link Control
RLP	Radio Link Protocol
RNC	Radio Network Controller
RNS	Radio Network Subsystem
RNSAP	Radio Network Subsystem Application Part
RNTI	Radio Network Temporary Identity
RR	Radio Resource
RRC	Radio Resource Control
RRM	Radio Resource Management
RTT	Radio Transmission Technology
SAAL	Signaling ATM Adaptation Layer
SCCP	Signaling Connection Control Part
SCTP	Simple Control Transmission Protocol
SDH	Synchronous Digital Hierarchy
SDO	Standard Developing Organization
SGSN	Serving GPRS Support Node
SIM	Subscriber Identity Module
SM	Session Management protocols
SRNC	Serving Radio Network Controller
SRNS	Serving Radio Network Subsystem
SS7	= CCS7 (Common Control Signaling System No. 7)
SSCOP	Service Specific Connection Oriented Protocol
SSF	Service Switching Function
STC	Signaling Transport Converter
STM1	Synchronous Transport Module - level 1
SUT	System Under Test
SW	Software
TACS	Total Access Communication System
TC	Transcoder
TD-CDMA	Time Division-Code Division Multiple Access
TDD	Time Division Duplex
TDMA	Time Division Multiple Access
TD-SCDMA	Time Division - Synchronous CDMA
TEID	Tunneling Endpoint ID

TETRA	TErrestrial Trunked Radio Access
TIA	Telecommunications Industry Association
TN-CP	Transport Network-Control Plane
TPC	Transmission Power Control
TRAU	Transcoder and Rate Adaptation Unit
TS	Technical Specification
TTA	Telecommunications Technology Association
U MSC	U MSC Mobile Switching Center (the integration of the MSC and the SGSN in one physical entity (UMTS+MSC = UMSC)
U MSC-CS	U MSC Circuit Switched
U MSC-PS	U MSC Packed Switched
U SIM	UMTS Subscriber Interface Module
U SSD	Unstructured Supplementary Service Data
UBR	Unspecified Bit Rate (data stream)
UDP	User Datagram Protocol
UE	User Equipment
UICC	UMTS IC Card
UL	Uplink
Um	GSM Air Interface
UMTS	Universal Mobile Telecommunication System
UNI	User-Network Interface
UP	User Plane
USIM	UMTS Subscriber Identity Module
UTRA	UMTS Terrestrial Radio Access
UTRAN	UMTS Terrestrial Radio Access Network
Uu	UMTS Air interface
UWC-136	Universal Wireless Communication
VBR	Variable Bit Rate (data stream)
VHE	Virtual Home Environment
VLR	Visitor Location Register
VMSC	Visited MSC
W-CDMA	Wide band Code Division Multiple Access
WLL	Wireless Local Loop