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Contents

Intellectual Property Rights	2
Foreword.....	2
Modal verbs terminology.....	2
Foreword.....	7
1 Scope	8
2 References	8
3 Definitions, symbols and abbreviations	10
3.1 Definitions	10
3.2 Symbols.....	11
3.3 Abbreviations	11
4 Architecture	13
4.1 GAN A/Gb mode architecture.....	13
4.2 GAN Iu mode architecture	14
5 Functional entities	16
5.1 Mobile Station (MS).....	16
5.2 Generic Access Network Controller (GANC).....	16
5.2.1 GAN A/Gb mode.....	16
5.2.2 GAN Iu mode	17
6 Control and User Plane Architecture.....	17
6.1 CS Domain (GAN A/Gb mode)	17
6.1.1 CS Domain - Control Plane	17
6.1.1.1 CS Domain - Control Plane - GAN Architecture.....	17
6.1.1.2 CS Domain - Control Plane - MS Architecture.....	19
6.1.2 CS Domain - User Plane.....	20
6.1.2.1 CS Domain - User Plane - GAN Architecture.....	20
6.2 PS Domain (GAN A/Gb mode).....	21
6.2.1 PS Domain - GAN Architecture	21
6.2.1.1 PS Domain - Control Plane - GAN Architecture	21
6.2.1.2 PS Domain - User Plane - GAN Architecture	22
6.2.2 PS Domain - MS Architecture	23
6.3 CS Domain (GAN Iu mode).....	24
6.3.1 CS Domain - Control Plane	24
6.3.1.1 CS Domain - Control Plane - GAN Architecture.....	24
6.3.1.2 CS Domain - Control Plane - MS Architecture.....	25
6.3.2 CS Domain - User Plane	26
6.3.2.1 CS Domain - User Plane - GAN Architecture.....	26
6.3.2.2 CS Domain - User Plane - MS Architecture	27
6.4 PS Domain (GAN Iu mode)	28
6.4.1 PS Domain - Control Plane.....	28
6.4.1.1 PS Domain - Control Plane - GAN Architecture	28
6.4.1.2 PS Domain - Control Plane - MS Architecture	29
6.4.2 PS Domain - User Plane	30
6.4.2.1 PS Domain - User Plane - GAN Architecture	30
6.4.2.2 PS Domain - User Plane - MS Architecture.....	31
7 Management functionality.....	32
7.1 State diagram for Generic Access	32
7.2 GA-RC (Generic Access Resource Control)	33
7.2.1 General.....	33
7.2.2 States of the GA-RC sub-layer	33
7.3 GA-CSR (Generic Access Circuit Switched Resources).....	33
7.3.1 General.....	33
7.3.2 States of the GA-CSR sub-layer	34

7.4	GA-PSR (Generic Access Packet Switched Resources).....	34
7.4.1	States of the GA-PSR sub-layer.....	34
7.4a	GA-RRC.....	35
7.4a.1	General.....	35
7.4a.2	States of the GA-RRC sub-layer.....	35
7.5	Security Mechanisms	36
8	High-Level Procedures for GAN A/Gb Mode	36
8.1	Mechanism of Mode Selection in Multi-mode terminals	36
8.2	PLMN Selection	37
8.3	Re-selection between GERAN/UTRAN/E-UTRAN and GAN modes	38
8.3.1	Rove-in (from GERAN/UTRAN/E-UTRAN mode to GAN mode).....	38
8.3.2	Rove-out (from GAN mode to GERAN/UTRAN/E-UTRAN mode).....	39
8.4	GAN Discovery and Registration related procedures.....	39
8.4.1	Discovery and Registration for Generic Access	39
8.4.1.1	General	39
8.4.1.2	Security Gateway Identification.....	40
8.4.1.3	GANC capabilities	40
8.4.1.4	MS capabilities.....	40
8.4.1.4a	Required GAN Services.....	40
8.4.1.4b	GAN Mode Selection.....	41
8.4.1.5	Discovery Procedure	44
8.4.1.5.1	Normal Case	44
8.4.1.6	Registration procedure	45
8.4.1.6.1	Normal case	45
8.4.1.6.2	Abnormal cases	47
8.4.2	De-Registration.....	47
8.4.3	Registration Update	48
8.4.4	Keep Alive.....	49
8.4.5	Cell Broadcast Information.....	49
8.5	Authentication	50
8.6	Encryption	50
8.6.1	Establishment of a Secure Association	50
8.7	GA-CSR Connection handling.....	51
8.7.1	GA-CSR Connection Establishment.....	51
8.7.2	GA-CSR Connection Release.....	51
8.8	Ciphering Configuration.....	52
8.9	GA-CSR Signalling and SMS Transport Procedures	53
8.9.1	Network initiated CS Signalling	53
8.9.2	MS initiated CS Signalling	53
8.10	Mobile Originated Call Flow.....	54
8.11	Mobile Terminated Call Flow	56
8.12	Call Clearing	57
8.13	Channel Modify	57
8.14	CS Handover between GAN A/Gb mode and GERAN/UTRAN mode.....	58
8.14.1	CS Handover to GAN A/Gb mode	58
8.14.1.1	GERAN to GAN CS Handover.....	58
8.14.1.2	UTRAN to GAN CS Handover.....	60
8.14.2	CS Handover from GAN A/Gb mode to GERAN	62
8.14.3	CS Handover from GAN A/Gb mode to UTRAN	64
8.15	Cell Change Order between GAN A/Gb mode and GERAN/UTRAN mode	65
8.16	GA-PSR Transport Channel Management Procedures.....	66
8.16.1	MS initiated Activation of GA-PSR Transport Channel.....	66
8.16.2	MS initiated Deactivation of the GA-PSR Transport Channel	67
8.16.3	Implicit Deactivation of the GA-PSR Transport Channel due to MS Deregistration	68
8.16.4	Network initiated GA-PSR Transport Channel Activation.....	68
8.17	GPRS Data, Signalling and SMS Transport.....	69
8.17.1	GA-PSR GPRS Data Transport Procedures.....	69
8.17.2	GA-PSR GPRS Signalling and SMS Transport Procedures	69
8.17.2.1	General	69
8.17.2.2	Network initiated GPRS Signalling	70
8.17.2.3	MS initiated GPRS Signalling.....	70

8.18	GA-PSR Specific Signalling Procedures.....	70
8.18.1	Packet Paging for GPRS Data Service.....	70
8.18.2	Packet Paging for CS Domain Service	71
8.18.3	GPRS Suspend Procedure.....	71
8.18.4	GPRS Resume Procedure	72
8.18.5	MS Initiated Downlink Flow Control	73
8.18.6	Uplink Flow Control.....	74
8.19	Short Message Service	74
8.19.1	GSM based SMS.....	74
8.19.2	GPRS based SMS	75
8.20	Supplementary Services	75
8.21	Emergency Services	75
8.21.1	General.....	75
8.21.2	North American Emergency Calls	75
8.21.2.1	Phase 1 Solution.....	75
8.21.2.1.1	Phase 1 Requirements.....	75
8.21.2.1.2	Phase 1 Mechanism	76
8.21.2.2	Phase 2 Solution.....	76
8.21.2.2.1	Phase 2 Requirements.....	76
8.21.2.2.2	Phase 2 Mechanism	76
8.22	Location Services	76
8.23	PS Handovers between GAN A/Gb mode and GERAN/UTRAN mode.....	77
9	High-Level Procedures for GAN Iu Mode.....	77
9.1	Mechanism of Mode Selection in Multi-mode terminals	77
9.2	PLMN Selection.....	77
9.3	Re-selection between GERAN/UTRAN/E-UTRAN and GAN modes	77
9.4	GAN Discovery and Registration related procedures.....	77
9.5	Authentication	77
9.6	Encryption	77
9.7	GA-RRC Connection handling.....	77
9.7.1	GA-RRC Connection Establishment	78
9.7.2	GA-RRC Connection Release.....	78
9.7.3	GA-RRC Connection Release Request.....	79
9.8	Security Mode Control	79
9.9	NAS Signalling Procedures.....	80
9.10	Mobile Originated CS Call.....	81
9.11	Mobile Terminated CS Call.....	83
9.12	CS Call Clearing.....	85
9.12.1	CS Call Release	85
9.12.2	CS Channel Release.....	85
9.13	CS Channel Modification.....	86
9.14	CS Handover between GAN Iu mode and GERAN/UTRAN mode	87
9.14.1	CS Handover from GERAN to GAN	87
9.14.1.1	Normal case: IMSI is present in Relocation Request message	88
9.14.1.2	Exception Case: No IMSI in Relocation Request	90
9.14.2	CS Handover from UTRAN to GAN.....	91
9.14.2.1	Normal Case: IMSI is present in Relocation Request message.....	92
9.14.2.2	Exception Case: No IMSI in Relocation Request	93
9.14.3	CS Handover from GAN Iu mode to GERAN	94
9.14.4	CS Handover from GAN Iu mode to UTRAN	96
9.15	Cell Change Order between GAN Iu mode and GERAN mode.....	98
9.16	GA-RRC Packet Transport Channel Management Procedures	98
9.16.1	States of the GA-RRC Packet Transport Channel	99
9.16.2	PTC Activation	99
9.16.2.1	PTC Activation when GANC receives RAB Assignment Request.....	99
9.16.2.2	PTC Activation when GANC receives Relocation Request.....	101
9.16.3	PTC Data transfer	102
9.16.4	MS initiated PTC De-activation.....	102
9.16.5	MS initiated PTC Re-activation.....	103
9.16.6	Network initiated PTC De-activation	104
9.16.7	Network initiated PTC Re-activation.....	105

9.16.7.1	Active PDP Context, PS Signalling Connection Exists	105
9.16.7.2	Active PDP Context, No PS Signalling Connection	106
9.16.8	Implicit PTC De-activation due to MS De-registration	107
9.16.9	PTC Modification	107
9.17	(void)	108
9.18	(void)	108
9.19	Short Message Service	108
9.19.1	SMS via the CS domain	108
9.19.2	SMS via the PS domain	108
9.20	Supplementary Services	109
9.21	Emergency Services	109
9.22	Location Services	109
9.23	PS Handover between GAN Iu mode and GERAN/UTRAN mode	109
9.23.1	PS Handover from GERAN to GAN	109
9.23.1.1	Preparation Phase	109
9.23.1.2	Execution Phase	110
9.23.2	PS Handover from UTRAN to GAN	111
9.23.2.1	Preparation Phase	111
9.23.2.2	Execution Phase	113
9.23.3	PS Handover from GAN to GERAN	114
9.23.3.1	Preparation Phase	114
9.23.3.2	Execution Phase	115
9.23.4	PS handover from GAN to UTRAN	116
9.23.4.1	Preparation Phase	116
9.23.4.2	Execution Phase	117
Annex A (normative): Security mechanisms		118
A.1	EAP based Authentication	118
A.1.1	EAP-SIM Procedure for authentication	118
A.1.2	EAP-AKA Procedure for authentication	119
A.1.3	Fast Re-authentication	121
A.1.3.1	EAP-SIM Fast Re-authentication	122
A.1.3.2	EAP-AKA Fast Re-authentication	123
A.2	Profile of IKEv2	124
A.3	Profile of IPsec ESP	124
Annex B (informative): Configuration Information		125
B.1	GAN A/Gb mode ARFCN/BSIC for handover-to-GAN	125
B.2	GAN Iu mode UARFCN/PSC for handover-to-GAN	125
B.2.1	Cell Measurement Quantities and Values	125
Annex C (informative): Identifiers in GAN		126
C.1	Identifiers for MSs and generic IP access network	126
C.2	Cell identifiers for GAN A/Gb mode	126
C.2.1	GAN Cell Id for Location Services & Billing	126
C.2.1.1	Assigning GAN Cell Id based on GSM location	126
C.2.2	GAN Cell Id for handover-to-GAN	127
C.2.3	GAN ARFCN/BSIC for handover-to-GAN	127
C.3	(void)	127
Annex D (informative): Change history		128
History		130

Foreword

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1 Scope

The present document defines the stage 2 service description for a Generic Access Network (GAN) . It describes the GAN system concepts, documents the reference architecture, functional entities, network interfaces, and high-level procedures.

GAN supports two modes of operation:

- GAN A/Gb mode
- GAN Iu mode

GAN A/Gb mode supports an extension of GSM/GPRS mobile services that is achieved by tunnelling Non Access Stratum (NAS) protocols between the MS and the Core Network over an IP network and the A and Gb interfaces to the MSC and SGSN, respectively.

GAN Iu mode supports an extension of UMTS mobile services that is achieved by tunnelling Non Access Stratum (NAS) protocols between the user equipment (MS) and the Core Network over an IP network and the Iu-cs and Iu-ps interfaces to the MSC and SGSN, respectively.

Both GAN modes are complements to traditional GERAN/UTRAN/E-UTRAN radio access network coverage.

2 References

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- [1] 3GPP TS 23.002: "Network architecture".
- [2] 3GPP TS 23.009: "Handover procedures".
- [3] 3GPP TS 23.271: "Location Services (LCS); Functional description; Stage 2".
- [4] 3GPP TS 23.122: "Non-Access-Stratum functions related to Mobile Station (MS) in idle mode".
- [5] 3GPP TS 23.236: "Intra-domain connection of Radio Access Network (RAN) nodes to multiple Core Network (CN) nodes".
- [6] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core network protocols; Stage 3".
- [7] 3GPP TS 26.071: "AMR speech codec; General description".
- [8] 3GPP TS 29.234, v11.2.0: "3GPP system to Wireless Local Area Network (WLAN) interworking, Stage 3".
- [9] 3GPP TS 33.234, v.12.1.0: "3G security; Wireless Local Area Network (WLAN) interworking security".
- [10] 3GPP TS 43.020: "Security related network functions".
- [11] 3GPP TS 48.004: "Base Station System - Mobile-services Switching Centre (BSS-MSC) interface; Layer 1 specification".