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Digital cellular telecommunications system (Phase 2+) (GSM);
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3GPP A GLOBAL INITIATIVE
GSM® GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS

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Contents

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

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

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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".