AIRTEL NETWORKS ZAMBIA Plc. – IR.21_JUNE 2016

GSM Association Roaming Database, Structure and Updating Procedures
3.9.9
March 2005

History of changes (maximum length: 1 page only)		
Date of change	Effective date	Changes made
Oct. 2010	12th October 2010	▪ Updated International DPC and Carrier information ▪ Updated contact e-mail addresses ▪ Inclusion of additional SMSC GTs
March 2011	22nd March 2011	▪ Updated GPRS Information: BGP IP address. ▪ Updated GPRS Information: GRX Provider.
June 2011	13th June 2011	▪ Updated GPRS Information: 3G DNS IP address
November 2011	17th November 2011	▪ Updated GPRS Information: Addition of new GSN IP ranges.
July 2012	11th July 2012	▪ Updated ANSI to ITU SCCP Gateway
November 2012	10th November 2012	▪ Updated GPRS Information: SGSN and GGSN details ▪ Added roamware dummy GTs.
June 2013	18th June 2013	▪ Change of Operator name
July 2013	8th July 2013	▪ Inclusion of Pyro inroam GT ▪ Inclusion of MSS07 (Blade cluster) GT
May 2015	4th May 2015	▪ Updated Contact Information
June 2016	1st June 2016	▪ Updated Contact Information

Operator name: [1]	AIRTEL NETWORKS ZAMBIA Plc.	
Country (Abbreviated according to ISO 3166):	ZMB	
ROUTING INFORMATION		
CCITT E.164 Number series:	Country Code (CC)	National Destination Code (NDC)
	260	97
MSRN number range(s):	See Misc.	
E.212 Number series:	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	645	01
E.214 Mobile Global Title: (MGT)	Country Code of MGT [2] (CC)	Network Code of MGT (NC)
	260	97
Does Number Portability apply[3]?	NO	
ITU INTERNATIONAL SCCP GATEWAY		
Name of SCCP Carrier:	BELGACOM*	BELGACOM*
Signature: [1]	BRUSSEL/H	BRUSSEL/I
Type: [2]	STAND ALONE ISTP	STAND ALONE ISTP
International DPC:	2-013-1	2-014-7
*For ITU to ITU conversion.		

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[1]   Maximum 20 letters. This field is only needed for information and may be omitted.
[2]   ISC, MSC, Stand-alone SCCP etc. Maximum 20 letters. This field is only needed for information and may be omitted.

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Date for the ability to transmit and handle XUDT/XUDTS: [4]	

ANSI Networks SCCP GATEWAY		
Signature:	SYNIVERSE	
Type:	ISC	
International DPC:	235-250-000	

DATE FOR THE AVAILABILITY OF WHITE BOOK SCCP IN THE PLMN	
The ability to receive segmented XUDT/XUDTS:	
The ability to send segmented XUDT/XUDTS:	

SIGNALLING SYSTEM NO. 7 ACCESS SOLUTION		
Initial solution:	Initial solution valid until (date):	Subsequent solution:

SUBSCRIBER IDENTITY AUTHENTICATION	
Authentication performed for roaming subscribers at the commencement of GSM Service[5]	
Authentication performed for roaming subscribers in case of GPRS[6]	

AUTOMATIC ROAMING TESTING		
Entity	Subscriber-Number	Location
Automatic Answering CirCuit (AAC) [7] 1. AAC 2. AAC 3. AAC	(MSISDN)	

. . .		
Automatic Answering Circuit[8] (Accessible only from the Network- Network Interconnection Interface) 1. AAC 2. AAC 3. AAC		
Data Automatic Answering Circuit (DAAC) 1. Calls for Data 1. DAAC 2. DAAC 3. DAAC . . . 2. Fax Gr.3 1. Fax DAAC 2. Fax DAAC 3. Fax DAAC . . .	(MSISDN/ISDN)	

MOBILE APPLICATION PART (MAP)			
Introduction of higher supported MAP version			
Interworking Specifically for Roaming			
Application Context Name	Current version in		Comments
	Inbound Roaming		
	MSC / VLR	SGSN	Outbound Roaming[9]
networkLocUp	V3	V3	V3
roamingNumberEnquiry	V3	V3	V3
infoRetrieval	V3	V3	V3
subscriberDataMngt	V3	V3	V3
networkFunctionalSs	V3	N/A	N/A

mwdMngt	V2	V2	V2	
shortMsgMT-Relay (called shortMsgRelay in v1)	V2	V2	V2	
shortMsgMO-Relay (called shortMsgRelay in v1)	V2	V2	V2	
ss-InvocationNotification	V3	N/A	N/A	
subscriberInfoEnquiry	V3	V3	V3	
gprsLocationUpdate	N/A	V3	V3	
locationCancellation	V2	V3	V3	
msPurging	V3	V3	V3	
Reset	N/A	N/A	N/A	
networkUnstructuredSs	V2	N/A	N/A	
reporting	V2	N/A	N/A	
callCompletion	V3	N/A	N/A	
istAlerting	V3	N/A	N/A	
serviceTermination	V2	N/A	N/A	
locationSvcGateway	N/A	N/A	N/A	
mm-EventReporting	V2	N/A	N/A	
authenticationFailureReport	V3	V3	V3	
imsiRetrieval	V3	N/A	N/A	
gprsNotifyContext	N/A	V3	V3	
gprsLocationInfoRetrieval	N/A	V3	V3	
failureReport	N/A	V3	V3	
secureTransportHandling	V2	V2	V2	

Optimal Routing of mobile-to-mobile calls				
Application Context Name	Current Version			Comments
	(V)MSC	GMSC	HLR	
CallControlTransfer			N/A	
LocationInfoRetrieval[10]	N/A			
Inter-Operator SMS Enhancement				Comments
Application Context Name	Current Version			
	SMS-IWMSC	SMS-GMSC	HLR	
shortMsgGateway	N/A			
shortMsgAlert		N/A		
Vendor Information				
BSS vendor(s) and SW/HW version:	Ericsson R10/AXE810			
HLR vendor(s) and SW/HW version:	Ericsson R10/AXE810			
MSC/VLR vendor(s) and SW/HW	Ericsson R10/AXE810			

Optimal Routing of mobile-to-mobile calls				
Application Context Name	Current Version			Comments
	(V)MSC	GMSC	HLR	
CallControlTransfer			N/A	
LocationInfoRetrieval[10]	N/A			
Inter-Operator SMS Enhancement				
Application Context Name	Current Version			Comments
	SMS-IWMSC	SMS-GMSC	HLR	
shortMsgGateway	N/A			
shortMsgAlert		N/A		
SMSC vendor(s) and SW/HW vers.	Tango			
SGSN vendor(s) and SW/HW vers.	Ericsson SGSN 2010A MkVI			
GGSN vendor(s) and SW/HW vers.	Ericsson GGSN M120			
MMSC vendor(s) and SW/HW vers.	Comviva			
IN vendor(s) and SW/HW version:	Ericsson			

GPRS Information	
APN Operator Identifier[11]:	mnc001.mcc645.gprs
DNS IP address & name (primary)[12]:	217.113.64.90/32 *41.77.0.22 edns01.mnc001.mcc645.gprs
DNS IP address & name (secondary):	217.113.64.91/32 *41.77.0.23 edns02.mnc001.mcc645.gprs
BG IP Address:	94.102.170.95
SGSN VIPs:	217.113.64.97 – 217.113.64.114 *41.77.0.16
GGSN VIPs:	217.113.64.129 – 217.113.64.142 GGSN-C VIPs *41.77.0.0/29 GGSN-U VIPs *41.77.0.8/29
Inter PLMN GSN Backbone IP address range(s)[13]:	217.113.64.96/27, 217.113.64.128/28 and 217.113.64.80/28 217.113.82.32/28

*Note: 41.77.0.0/21 IP address block will become the active address block by 28/02/2013. All networks should therefore allow this block in their network.

GPRS Information		
		*41.77.0.0/27 *41.77.0.128/28
Autonomous System Number[14](ASN):		Private AS: 64869 Public AS: 37287
Pingable and trace routable IP address[15]:		
GRX provider(s):		BELGACOM
GPRS Information		
List of APN's available for testing and troubleshooting:		
WEB	APN	Internet
	Username	N/A
	Password	N/A
	ISP DNS IP address (primary)	N/A
	ISP DNS IP address (secondary)	N/A
WAP	APN	wap
	Username	N/A
	Password	N/A
	WAP Gateway IP address	10.150.0.140
	WAP Server URL	http://portal.zm.airtel.com http://wap.zm.airtellive.com
	Port	9201 (WSP) or 8080 (wHTTP)
MMS	APN	mms
	Username	N/A
	Password	N/A
	WAP Gateway IP address for MMS	10.150.0.140
	Messaging Server URL	http://mms.zm.airtel.com:8002
GTP version[16]	SGSN	SGSN 2010A MkVI
	GGSN	GGSN M120
Blackberry	APN	Blackberry.net
	Username	N/A
	Password	N/A
BSS information[17] :(optional field)		
Contact person(s) for GPRS[18]: (optional field)		TSG@zm.airtel.com

CAMEL Information			
gsmSSF/MSC:			
CAP (CAMEL Application Part) version[19]:	Yes	No	Date of planned support (if any)
CAP version 1			
CAP version 2	x		
CAP version 3	x		
CAP version 4		x	
Partial implementations supported in CAP version 4[20]:	Yes	No	Date of planned support (if any)
CAMEL Phase 4 CSIs:			
O-CSI			
D-CSI			
VT-CSI			
MT-SMS-CSI			
Functionalities:			
Initiate Call Attempt			
Split Leg			
Move Leg			
Disconnect Leg			
Entity Released			
DFC With Argument			
Play Tone			
DTMF Mid Call			
Charging Indicator			
Alerting DP			
Location At Alerting			
Change Of Position DP			
OR Interactions			
Warning Tone Enhancements			
CF Enhancements			

[19]   For information: some operators may restrict the use of CAMEL on specific PLMNs.

[20]   To be completed only if CAP version 4 is supported.

CAMEL Information			
gprsSSF/SGSN:			
CAP (CAMEL Application Part) version[21]:	Yes	No	Date of planned support (if any)
CAP version 3			
CAP version 4			
Partial implementations supported in CAP version 4[22]:	Yes	No	Date of planned support (if any)
CAMEL Phase 4 CSIs:			
MT-SMS-CSI			
MG-CSI			
PSI Enhancements			

SMSC Information	
SMSC GT addresses[23]:	See miscellaneous information

MISCELLANEOUS INFORMATION [24]
Number Information[25]: (if applicable, include additional E.164 Number Ranges due to Number Portability)

MSRN structure:
The MSRN complies with GSM 03.03 and ITU-T E.164 and has a length of 12 digits. It is composed as follows:-
MSRN ranges:
+260 97 70X1$Z_1...Z_3$:   X equals 1-9, $Z_1...Z_3$ equals 0 – 9.

IMSI
The IMSI complies with GSM 03.03 and ITU-T E.212 and has a fixed length of 15 digits. All digits of the MSIN must be sent. It is composed as follows:-

IMSI to MGT TRANSLATION

POSTPAID: 645 0178 → 260 97
PREPAID : 645 0177 → 260 97

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21   For information: some operators may restrict the use of CAMEL on specific PLMNs.

22   To be completed only if CAP version 4 is supported.

29   Operator s may enter contact information for providing list of addresses in cases where there are large number of SMSC's

24   This field has the purpose of giving more detailed information. The content and structure is decided by each operator.

25   In this field more detailed information about numbers relevant for roaming should be given. Also any additional NDC due to Number Portability should be listed in the format: Operator CC NDCs

MISCELLANEOUS INFORMATION [24]

MCC   MNC   MSIN
645   01   78 XXXXXXXX (Postpaid)
645   01   77 XXXXXXXX (Prepaid)

MSISDN:
The MSISDN complies with GSM 03.03 and ITU-T E.164 and has a length of 12 digits. It is composed as follows: -

CC   NDC   SN

260   97   X YYYYYY

X in use are: 1 to 9
Where Y can be any digit 0 to 9.
Global Title Addresses (E.164) of Network Entities

Airtel Networks Zambia MSC/VLR and HLR E.164 numbers comply with GSM 03.03. They are composed as follows:

HLR 1: 2609719106
HLR 2: 2609719148

MSC1:   2609719107
MSS01 : 2609719139
MSS02 : 2609719129
MSS03 : 2609719135
MSS04 : 260 971913604
MSS05 : 2609719143
MSS06 : 2609719147
MSS07: 2609719159 (blade cluster)

Roamware dummy Global Titles

26097191900
26097191901
26097191902
26097191903
26097191904
26097191905
26097191906
26097191907
26097191908
26097191909

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MISCELLANEOUS INFORMATION [24]
26097191930
Pyro Inroam Global Title
2609719109
SMSC Global Title +260 97 1911200 +260 97 1911700 +260 97 1911201 +260 97 19167 +260 97 19169

Contact persons: (specify Time Zone and day light saving zone for contact phone numbers)
General Contact address; Charles.Haboongo@zm.airtel.com UTC: GMT +2
International Roaming Coordination, SS.7 Implementation and Planning   Charles Haboongo Roaming & International Specialist Tel: +260 97 7915000 Email: Charles.Haboongo@zm.airtel.com Email: Roaming-ZMBCE@zm.airtel.com

IREG Testing

Technical Support Group

Tel: +260 97 7915000
Email: Mubanga.Chito@nokia.com
Email: TSG@zm.airtel.com

TADIG Testing

Billing Support - Roaming

Tel: +260 97 7915000
E-Mail : ZMBCEAlerts@zm.airtel.com

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24 hours x 7 days numbers for emergency troubleshooting[26]:
NETWORK OPERATIONS CENTRE: FAULT LOGGING & TECHNICAL MATTERS
Telephone: +260 97 7915000
Email: Mubanga.Chito@nokia.com and TSG@zm.airtel.com

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26   When available, this field should contain the phone number and fax of a 24hour x 7 days helpdesk for emergency
troubleshooting

34   This contact might be used in case technical troubleshooting is not sufficient

35   In this field other miscellaneous information should be given as e.g.:

The date for when a planned change (in the network or in the roaming data) will take place.

More detailed network description

Indication of specific holiday and/or working hours applicable in the country

SMG compliance of GPRS infrastructure (e.g.: SMG29, SMG30,…)

36   This field is not a part of the database and is only used by the HQ when distributing updating information.

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Escalation contact (Airtel): [34]
Charles Haboongo Roaming & International Specialist Tel: +260 97 7915000 Email: Charles.Haboongo@zm.airtel.com Kaluwe Monde Network Services Tel: +260 97 7915000 Email: Kaluwe.Monde@zm.airtel.com

Contact point (address) for distribution of updating of the Roaming database[36]:
Charles Haboongo Roaming & International Specialist Tel: +260 97 7915000 Email: Charles.Haboongo@zm.airtel.com

Effective date of change:	1st June 2016