# GSM MoU Association Permanent Reference Document: IR.21 **AIRTEL GABON**



GSM Association Roaming Database, Structure and Updating Procedures
4.0
April 2016

## This is a binding permanent reference document of the GSM Association.

Security Classification Category (see next page):		
Unrestricted	X	

26/10/2020		- Add GTs for Roamware	
14/04/2020		- New NDC 24176	
14/04/2020		- Additional MSRN Below	
		24176001	
		24176002 24176003	
		24176004	
10/02/2020	10/02/2020	- Update IP ranges PLMN:	
		154.0.179.97/32	
		154.0.179.98/32	
		154.0.179.99/32	
		154.0.179.100/32	
		154.0.179.64/29	

		154.0.179.72/29 154.0.179.80/29 154.0.179.88/29
10/02/2020	10/02/2020	- New SGSN-MME IPs: 1. Gn/Gp-C: 154.0.179.97/32 2. Gn/Gp-U: 154.0.179.98/32 3. S6a: 154.0.179.99/32 154.0.179.100/32
10/02/2020	10/02/2020	- New SGSN-MME GT: 24107389533
10/02/2020	10/02/2020	- New GGSN IP Ranges:  1. S5/S8-C: 154.0.179.64/29 2. S5/S8-U: 154.0.179.72/29 3. Gn/Gp-C: 154.0.179.80/29 4. Gn/Gp-U: 154.0.179.88/29

01/08/2019	15/09/2019	- New HLRs & HSSs added
		LTC-Z-USPP41 HQ-Z-USPP42
		EPCHSS41 EPCHSS42
17/07/2019	17/07/2019	- Update IP ranges PLMN: 41.223.93.0/26 154.0.184.0/29 154.0.184.8/29 154.0.184.48/29 154.0.184.96/29 154.0.184.112/29 154.0.184.120/29 154.0.186.161/32 154.0.186.163/32 154.0.186.164/32 154.0.186.165/32 154.0.186.165/32 154.0.186.152/29 154.0.186.152/29 154.0.186.128/29 154.0.186.136/29
17/07/2019	17/07/2019	- New SGSN-MME IPs:  1. MME IP: 154.0.186.165/32  2. Gn/Gp-C: 154.0.186.161/32  3. Gn/Gp-U: 154.0.186.162/32  4. S6a: 154.0.186.163/32
17/07/2019	17/07/2019	154.0.186.164/32 - New SGSN-MME GT: 24107389506

17/07/2019	17/07/2019	- New GGSN IP Ranges:		
		1. S5/S8-C: 154.0.186.144/29		
		2. S5/S8-U: 154.0.186.152/29		
		3. Gn/Gp-C: 154.0.186.128/29		
		4. Gn/Gp-U: 154.0.186.136/29		
01/04/2019	01/04/2019	- Update IP ranges PLMN		
01/04/2019	01/04/2019	- Modify IP ranges PLMN :		
		41.223.93.0/26		
		154.0.184.0/29		
		154.0.184.8/29		
		154.0.184.48/29		
		154.0.184.88/29		
		154.0.184.88/29 154.0.184.96/29		
		154.0.184.96/29 154.0.184.112/29		
		154.0.184.120/29		
20/10/2010	20/10/2010			
29/10/2018	29/10/2018	- Update IP ranges PLMN - Add IP ranges PLMN :		
26/10/2018	26/10/2018	1. S5/S8-U IP Address: 154.0.184.120/29		
		2. S5/S8-C IP Address: 154.0.184.112/29		
13/11/2017	13/11/2017	- New GGSN IP Ranges:		
13, 11, 231,	10, 11, 201,	1. S5/S8-U IP Address: 154.0.184.120/29		
		2. S5/S8-C IP Address: 154.0.184.112/29		
		- New IP Ranges PLMN:		
		1. Gn-S5-U IP Address: 154.0.184.96/29		
		2. Gn-S5-C IP Address: 154.0.184.88/29		
01/04/2016	01/04/2016	- New SGSN IP Ranges:		
		1. 154.0.184.0/29		
		2. 154.0.184.8/29		
01/04/2016	01/04/2016	- New GT Address Range:		
		3. 41.223.93.0/26		

\_\_\_\_

01/04/2016	01/04/2016	- LTE Information	
01/04/2016	01/04/2016		
		1. APN Operator Identifier	
		2. Diameter Edge Agent	
		3. eDNS	
		4. IPv6 Connectivity Information	
01/12/2015	01/11/2015	- New SGSN IP Ranges:	
		4. GTP- C: 154.0.184.48/32, 154.0.184.49/32	
		5. GTP- U: 154.0.184.50/32	
01/12/2015	01/11/2015	- New SGSN Address:	
		24107389530	
- 19/02/2013	- 19/02/2013	- Add new DNS IPs address(41.223.93.23,	
- 19/02/2013	19/02/2013	41.223.93.24)	
		41.223.93.24)	
12/00/2012	01/12/2012	E 104 Additional growthere	
- 13/08/2012	- 01/12/2012	- E 164 Additional numbers	
- 20/08/2012	- 18/10/2012	- New NDC	
- 20/08/2012	- 10/10/2012		
		- New HLR added	
04/08/2011	04/08/2011	- New IP address ranges for connection to Inter-PLMN IP	
04/08/2011	04/08/2011	- New AS Number	
04/08/2011	04/06/2011	- New AS Number	
11/02/2011	11/02/2011	- New SCCP Provider	
11/02/2011	11/02/2011	New Sect Hovider	
19/11/2010	19/11/2010	- New APNs	
19/11/2010	19/11/2010	- New HLR added	
19/11/2010	19/11/2010	- Contact details changed	
07/04/2000	07/04/2000	N. NDC	
07/04/2009	07/04/2009	- New NDC	
14/01/2009	14/01/2009	- Blackberry APN Added	
14/01/2009	17/01/2003	- Diackberry APN Added	
14/01/2009	14/01/2009	- CAMEL Version Added	
1,01,2003	1 ., 01, 2005	CATILL VOISION Added	
14/01/2009	14/01/2009	- Contact Details Changed	
, ,	, ,		
14/01/2009	14/01/2009	- IMSI Ranges Specified	
		- •	

Operator name: 1	AIRTEL-GABON
Country (abbreviated according to ISO 3166):	GA/GAB
Technologie	GSM;3G/UMTS;LTE/HSDPA
Frequency	GSM 900 MHz; 1800 MHz
	3G/UMTS 2100 MHz
	LTE/HSDPA 800MHz

Maximum 22 letters. This field is only used for administrative purposes, however, it must always be filled in in order to identify the operator.

ROUTING INFORMATION		
CCITT E.164 Number series:	Country Code (CC)	National Destination Code
MSISDN Number range(s) :	241	07, 77, 04, 74
Network nodes Global Title		
number range(s):	241	07, 77, 04, 74
MSRN NUMBER RANGE(S):	241	07, 77, 04, 74
E.212 NUMBER SERIES:	MOBILE COUNTRY CODE (MCC)	MOBILE NETWORK CODE (MNC)
	628	03
E.214 MOBILE GLOBAL	COUNTRY CODE OF MGT	NETWORK CODE OF MGT
TITLE: (MGT)	(CC)	(NC)
	241	07

ANSI Networks SCCP GATEWAY		
Name of SCCP carrier:	bics a belgacom company	
Signature: <sup>2</sup>	SYNIVERSE	
Type: <sup>3</sup>	ISC	
International DPC:	235-250-000	
Date for the ability to transmit and handle		
YUDT (YUDTS: [3]		

Maximum 20 letters. This field is only needed for information and may be omitted.

<sup>3</sup> ISC, MSC, Stand-alone SCCP etc. Maximum 20 letters. This field is only needed for information and may be omitted.

<sup>[3]</sup> XUDT means Extended Unitdata, this long user data can be handled by the White Book through segmentation and reassembly. XUDT S means Extended Unitdata Service, this message is used to indicate that a XUDT can not delivered to destination

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:

AUTOMATIC ROAMING TESTING 4		
Entity	Subscriber- Number	Location
Automatic Answering CirCuit	(MSISDN)	
(AAC) 5 1. AAC 2. AAC 3. AAC		
Data Automatic Answering Circuit (DAAC)	(MSISDN/ISDN)	
1. Calls for Data 1. DAAC 2. DAAC 3. DAAC		
2. Fax Gr.3 1. Fax DAAC 2. Fax DAAC 3. Fax DAAC		

In this field, more detailed information about subscriber-numbers using for Automatic Roaming T esting: see PRD IR.28

The number of AAC and DAAC installed in the network is decided by each operator

MOBILE APPLICATION PART (MAP)				
	1		1	_
	Inbound Roaming MSC/VLR   SGSN		Outbound	
networkLocUp	V3		Roaming	
roamingNumberEnquiry	V3			
infoRetrieval	V3			
subscriberDataMngt	V3			
networkFunctionalSs	V3			
mwdMngt	V3			
shortMsgMT-Relay				
(called shortMsgRelay in v1) shortMsgMO-Relay	V3			
(called shortMsgRelay in v1)	<del>  ∨3</del>			
ss-InvocationNotification	<del>  ∨3</del>			
subscriberInfoEnquiry	V3			
gprsLocationUpdate	N/A	***		
locationCancellation	V3			
msPurging	V3			
reset	V3			
networkUnstructuredSs	V3			
reporting	N/A			
callCompletion	N/A			1
istAlerting	V3			
serviceTermination	V3			

 $<sup>6\,</sup>$  The term "Outbound Roaming" denotes any one of the following nodes that is located in the home PLMN only: HLR, gsmSCF, SMS-IWMSC, SMS-GMSC.

N/	N/A								
V	V3								
t N/	Α								
N/	Α								, and the second se
N/	A								8
N/	Α								â
N/	A								3
N/	N/A								
to-mobile	calls								
Current Ve	ersion								
(V)MSC <b>7</b>	GMS	С	HLR		Comn	nents			
V3		-							
N/A									
Inter-Operator SMS Enhancement									
						Comm	ents		
SMS-IWM	SC	SMS-	GMSC	HI	LR				
N/A									
V2		١	I/A						
	t N/ N/ N/ N/ N/ N/ N/ N/ to-mobile Current Ve (V)MSC V3 N/A  Cement Current Ve SMS-IWM N/A	t N/A N/A N/A N/A N/A N/A N/A N/A N/A to-mobile calls Current Version (V)MSC GMS V3 N/A  N/A  cement Current Version SMS-IWMSC N/A	t N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A	t N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A	t N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A	V3	V3	V3	V3         t         N/A           N/A         N/A           N/A         N/A           N/A         N/A           to-mobile calls         Comments           Current Version         Comments           V3         N/A           N/A         N/A           Current Version         Comments           Current Version         Comments           Current Version         Comments           SMS-IWMSC         SMS-GMSC         HLR

<sup>7</sup> The MSC is acting as a VMSC for a roaming subscriber for ORLCF; see sub -clause 4.2 of 3GPP TS 23.079 for more information.

<sup>8</sup> The "locationInfoRetrieval" application context is only valid for inter -PLMN signalling in Optimal Routeing of mobile-to-mobile calls; otherwise it is only intra-PLMN. Note that the dialogue initiator is a GMSC which is integrated with the calling subscriber's MSC/VLR (and obviously the dialogue responder is the called subscriber's HLR, which is in the called subscriber's HPLMN).

LTE Roaming Information:

APN Operator Identifier	epc.mnc003.mcc628.3gppnetwork.org
Diameter Edge Agent (IP	154.0.184.33/32
Address)	154.0.184.34/32

DNS Name	IP Address		FQDN
eDNS1 (Primary)	41.223.9	93.23	edns01.epc.mnc003.mcc628.3 gppnetwork.org
eDNS2 (Secondary)	41.223.9	93.24	edns02.epc.mnc003.mcc628.3 gppnetwork.org
S5/S8 (User Plane)	IP Address		

154.0.186.144/29 S5/S8 (Control Plane) IP Address 154.0.179.64/29				
S6a Supported without IWF	S6a MAP IWF supported to S6a MAP IWF supported to MME			
True	False	False		

154.0.184.1/29 154.0.184.112/29

S6d used for legacy SGSN	S8 GTP Interface Available	S8 PMIM Interface Available
False	True	False

S6a Host Names:	
-----------------	--

EPCHSS41.epc.mnc003.mcc628.3gppnetwork.org

EPCHSS42.epc.mnc003.mcc628.3gppnetwork.org

LTCVSGSN01.epc.mnc003.mcc628.3gppnetwork.org

HQSGSN01. epc.mnc003.mcc628.3gppnetwork.org

PGTvSGSN01.epc.mnc003.mcc628.3gppnetwork.org

S9 Hostnames (PCRF List)	N/A
S9 Used for PCC	False

SMS ITW	SMS Delivery over IP	SMS Delivery over SGs	
	False	True	
Voice ITW		CSFB	
Roaming Retry			
Is Roaming Retry supported?	Yes		

LTE Only Roaming	HPMN	VPMN
Supported	No	No
Supported	Yes	Yes
Supported	Yes	Yes
Supported	No	No
	Supported Supported Supported	Supported No Supported Yes Supported Yes

IPv6 Connectivity Information				
	IPv6 PDP Supported	IPv4v6 PDP Supported		
MME	No	No		
SGW	No	No		
PGW	No	No		

<b>GPRS</b> Informa				
APN Operator Identifier [1]:		mnc003.mcc628.gprs		
	available for testing and tr	oubleshooting:		
WEB	APN 1	internet.ga.zain.com		
	Username	None		
	Password	None		
	DNS IP address (primary)	None		
	DNS IP address (secondary)	None		
WAP	APN	wap.ga.zain.com		
	Username	None		
	Password	None		
	WAP Gateway IP address	None		
WAP Server URL		None		
	Port	None		
MMS	APN			
	Username			
	Password			
	WAP Gateway IP address for MMS			
Blackberry	APN	blackberry.net		
	Username	None		
	Password	None		
	DNS IP address (primary)			
	DNS IP address (secondary)			
GTP version[2]	SGSN	GTPv1		
GGSN		GTPv1		
BSS information	[3] :(optional field)			
Contact person( (optional field	s) for GPRS <sup>[4]</sup> :	IREG team (see contact persons section)		

<sup>[1]</sup> APN Operator Identifier used for GGSN resolution. The last three labels of the APN Operator Identifier must be in the form: MNC.MCC.GPRS

<sup>[2]</sup> The highest GTP version which operators support. (e.g.: R97 and R98: ver.0, R99 and after R99 : ver.1)

It is recommend that GTPver1 be supported from 00:00:00 1st January 2005, otherwise while GTPver0 only is supported by a network that network should apply the configuration defined in IR.34.

<sup>[3]</sup> BSS vendor(s), (software/hardware version) Ciphering active yes/no PBCCH

<sup>[4]</sup> Contact information for the GPRS specialists as well as working time and Time Zone

IP-Roaming and IP-Interworking Information				
All IP address ranges used by PLMN for connection to				
Inter-PLMN IP backbone9:	41.223.93.0/26			
	154.0.184.0/29			
	154.0.184.8/29			
	154.0.184.48/29			
	154.0.184.88/29			
	154.0.184.96/29			
	154.0.184.112/29			
ı	154.0.184.120/29			
	154.0.186.161/32			
	154.0.186.162/32 154.0.186.163/32			
	154.0.186.163/32   154.0.186.164/32			
	154.0.186.164/32   154.0.186.165/32			
	154.0.186.144/29			
	154.0.186.152/29 154.0.186.128/29			
	154.0.186.136/29 154.0.179.97/32 154.0.179.98/32			
	154.0.179.99/32			
	154.0.179.100/32			
	154.0.179.64/29			
	154.0.179.72/29			
	154.0.179.80/29			
	154.0.179.88/29			
Autonomous System Number (ASN)10:	37616			
List of PLMN authoritative DNS server IP addresses &	41.223.93.23			
Names <sup>11</sup> :	edns01.mnc003.mcc628.gprs			
	41.223.93.24			
	edns01.mnc003.mcc628.gprs			
List of PLMN local caching DNS server IP addresses &				
names <sup>12</sup> :				
13	41.223.93.23			
IP address that responds to ping/traceroute 13:	41.223.93.24			
GRX provider(s):	Bics (Belgacom)			
Contact person(s) (in PLMN) for GRX connectivity:	Marc Aurele MANGAL MA BULINGI			
Contact person (in PLMN) to verify authority of a GRX provider to add/modify data in Root DNS:				
Name:	Marc Aurele MANGAL MA BULINGI			
Tel:	+241 74 19 48 40			
Fax (optional):	+241 11 74 52 86 +241 111 74 52 86			

- 9 IP addresses or IP address range(s) of all operator's nodes that connect to the inter-PLMN IP backbone network known as the "GRX" e.g. GGSNs, SGSNs, MMSCs, AAA Servers/Proxies, DNS Servers etc. This information is used for firewall and Border Gateway configuration (see PRD IR.34).
- The Autonomous System Number (ASN) is a 16 bit integer that every PLMN must assign to their IP network that is seen as one Autonomous System (AS). The ASN enables the exchange of exterior routing information between neighbouring Autonomous Systems. This can be either a private ASN (64512 through to 65535) or public ASN.
- IP address(es) and name(s) of DNS server(s) that are authoritative DNS server(s) i.e. DNS servers that answer DNS requests/queries from local caching DNS servers. Note that DNS hostname(s) given in this field should match the actual name(s) configured in the operator DNS server(s) (this is to avoid conflict with the NS records in the Root DNS and operator DNS servers).
- 12 IP address(es) and name(s) of DNS server(s) that are local caching DNS server(s) i.e. DNS server(s) that send DNS requests/queries in order to resolve domain names
  - on behalf of e.g. SGSN, MMSC etc. Note that DNS hostname(s) given in this field should match the actual name(s) configured in the operator DNS server(s) (this is to avoid conflict with the NS records in the Root DNS and operator DNS servers).
- Pingable and traceroutable IP address of a node within the operator's AS. Maximum size for ping is 64 bytes. Minimum time interval for pinging is 1 hour.

GSM MoU ASSOCIATION PRD: IR.21

## UNRESTRICTED

IP-Roaming and IP-Interworking Information					
E-Mail:					
		Roaminghelpdesk@ga.airtel.com			
Alternative contact person (in PLMN) to verify authority	y of a GRX	provider	to add/modify data in Root DNS:		
Name:		Debora NGO NSANG			
Tel:		+241 74 21 01 41			
Alternative Tel:					
E-Mail (optional):		RoamingHelpdesk@ga.airtel.com			
MMS Interwor	king Inforr	nation			
Domain name of MMSC					
IP address(es) of incoming MTA					
IP address(es) of outgoing MTA					
Max. size of MMS allowed					
Delivery Report allowed?					
Read Report allowed?					
<u>'</u>					
CAMEL INFORMATION					
CAP (CAMEL Application Part) version: Inbound			Date of planned support (if any)		
Roaming	Yes	No			
CAP version 1	<u> </u>	- 🖁			
CAP version 2	— <del>▼</del>	_ 🗀			
CAP version 3		- <u>□</u>			
CAP version 4		_			
CAP (CAMEL Application Part) version: Outbound					
Roaming	V				
CAP version 1	<u> </u>				
CAP version 2	<u> </u>	_ 🗀			
CAP version 3	——————————————————————————————————————	- M			
CAP version 4	Н	_			

#### 14 **MISCELLANEOUS INFORMATION**

Number Information:

IMSI: Complies with GSM 03.30 and CCITT E.212 The IMSI number has a fixed length of 15 digits and is composed as follow 628 03 Y1 Y2Y3 X1 X2X3X4X5X6X7 where Y<sub>1</sub> Y<sub>2</sub>Y<sub>3</sub> = HLR identifier = 045 where X = 0 to 9**IMSI Ranges:** Postpaid -> 628 03 52 X<sub>1</sub> X<sub>2</sub> X<sub>3</sub>X<sub>4</sub>X<sub>5</sub>X<sub>6</sub> Prepaid -> 628 03 5Y X<sub>1</sub> X<sub>2</sub> X<sub>3</sub> X<sub>4</sub>X<sub>5</sub>X<sub>6</sub> where Y = 0;1;3;4;5;6;7;8;9where X = 0 to 9 MSISDN: Complies with GSM 03.30 and CCITT E.164 The Existing MSISDN number has a fixed length of 11 digits and is composed as follow CC NDC +241 07  $X_1 X_2 X_3 X_4 X_5 X_6$  where X = 0 to 9 +241 04  $X_1 X_2 X_3 X_4 X_5 X_6$  where X = 0 to 9 The New MSISDN number has a fixed length of 11 digits and is composed as follow s. Initially both numbers formats will need to be supported the NDC containing a zero as above and the zeroless NDC as below. +241 77 X1X2X3X4 X5X6 where X = 0 to 9 +241 74 X1X2X3X4 X5X6 where X = 0 to 9 +241 74 X1X2X3X4 X5X6 where X = 0 to 9 MSRN: Complies with GSM 03.30 and CCITT E.164 The MSRN number has a fixed length of 11 digits and is composed as follow CC NDC SN Where  $Z_1 = 0$  to 9 and  $Z_2 = 0$  to 9 +241 07 38 96 Z1 Z2 +241 07 38 97 Z1 Z2 Where Z1 = 0 to 9 and  $Z_2 = 0$  to 9 Where Z1 = 0 to 9 and  $Z_2 = 0$  to 9 +241 07 38 98 Z<sub>1</sub> Z<sub>2</sub> Where Z1 = 0 to 9 and  $Z_2 = 0$  to 9 +241 07 38 99 Z<sub>1</sub> Z<sub>2</sub> Where Z1 = 0 to 9 and  $Z_2 = 0$  to 9 +241 04 01 50 Z1Z2 04 01 51 Z1Z2 Where Z1 = 0 to 9 and  $Z_2 = 0$  to 9 +241 +241 04 01 52 Z1Z2 Where Z1 = 0 to 9 and  $Z_2 = 0$  to 9 Where Z1 = 0 to 9 and  $Z_2 = 0$  to 9 +241 04 01 53 Z1Z2 numbers will be with a fixed length of 11 digits. New additional Roaming CC NDC SN +241 77 38 96 Z1Z2 Where Z1 = 0 to 9 and Z2 = 0 to 9

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

Z1 = 0 to 9 and Z2 = 0 to 9

Z1 = 0 to 9 and Z2 = 0 to 9

Z1 = 0 to 9 and Z2 = 0 to 9

Where

Where

Where

+241 77 38 97 Z1Z2

+241 77 38 98 Z1Z2

+241 77 38 99 Z1Z2

In this field more detailed information about numbers relevant for roaming should be given.

```
+241 74 01 50 Z1Z2
                        Where
                                  Z1 = 0 to 9 and Z2 = 0 to 9
+241 74 01 51 Z1Z2
                        Where
                                  Z1 = 0 to 9 and Z2 = 0 to 9
+241 74 01 52 Z1Z2
                        Where
                                  Z1 = 0 to 9 and Z2 = 0 to 9
+241 74 01 53 Z1Z2
                        Where
                                  Z1 = 0 to 9 and Z2 = 0 to 9
+241 76 00 1 Z1Z2Z3
                        Where
                                  Z1 = 0 to 9; Z2 = 0 to 9 and Z3 = 0 to 9
+241 76 00 2 Z1Z2Z3
                        Where
                                  Z1 = 0 to 9; Z2 = 0 to 9 and Z3 = 0 to 9
                                  Z1 = 0 to 9; Z2 = 0 to 9 and Z3 = 0 to 9
+241 76 00 3 Z1Z2Z3
                        Where
+241 76 00 4 Z1Z2Z3
                        Where
                                  Z1 = 0 to 9; Z2 = 0 to 9 and Z3 = 0 to 9
```

### Translation E.212 to E214

The MGT translation in roaming should be: 628 03 to 241 07

#### HLR and VLR Addresses

HLR1 Address: 241 07 38 95 13 HLR2 Address: 241 07 38 95 02 VLR1 Address: 241 07 38 95 10 VLR2 Address: 241 07 38 95 40 SMSC number: 241 07 91 01 01

GMSC Address: [24107389500] / [24107389510]

SGSN Address: 241 07 38 95 30 LTCVSGSN1: 241 07 38 95 06 PGTvSGSN01: 241 07 38 95 33

#### **ROAMWARE INFORMATIONS**

DIGITS (24107389560,24107389562, 24107389564,24107991006, 24107991008,

24107389567~,24107389568, 24107389561,24107389563,24107389565,24107991007,24107991009,

24107389569~,24107389570)

# Message on IRTMS GTs

DIGITS (24107389571,24107389573,24107389575)

# Message on NTR/BRG GTs

DIGITS (24107389576,24107389578)

# Message on TCAPserver GT

DIGITS (24107389582)

# Message on RMI GTs

DIGITS (2410738958011,2410738958022)

# Message on MAPserver GT

DIGITS (24107389580)

# Message on tSMSC GT

DIGITS (2410738956088)

## ###########OUTGOING#########

# Check for looping on GLR GTs

DIGITS (24107389560,24107389562, 24107389564, 24107991006, 24107991008,

24107389567~,24107389568, 24107389561,24107389563, 24107389565, 24107991007, 24107991009,

24107389569~,24107389570)

# Check for looping on IRTMS GTs

DIGITS (24107389571,24107389573, 24107389575)

# Check for looping on IRTMS GTs

DIGITS (24107389576,24107389578)

# Check for looping on TCAP GTs

DIGITS (24107389582)

# Check for looping on TCAP GTs

DIGITS (24107389582)

# Messages from SCAP on GLR GTs should be sent to GLR

DIGITS (24107389560,24107389562, 24107389564, 24107991006, 24107991008, 24107389567~,24107389568, 24107389561,24107389563, 24107389565, 24107991007, 24107991009, 24107389569~,24107389570)
# Check for looping on MAP GTs
DIGITS (24107389580)
# Check for looping on TSMSC GTs
DIGITS (2410738956088)
# Check for looping on RMI GTs

# Contact persons:

## **Roaming service Agreement**

## **Ms Debora Nadine NGO-NSANG**

Airtel Gabon SA Rue Pecqueur Gabon Mining Logistic Centre ville BP 9259 Libreville GABON

Tel: +241 74 00 00 / +241 77 74 00 00 Fax: +241 174 52 86 /+241 1174 52 86 Mob: + 241 04210141 /+ 241 74210141

E-mail: Roaminghelpdesk@ga.airtel.com; debora.ngo@ga.airtel.com

### IREG & TADIG services

#### Mr Marc-Aurèle MANGAL MA BULINGI

Airtel Gabon SA Rue Pecqueur Gabon Mining Logistic Centre ville BP 9259 Libreville GABON

Tel: +241 74 00 00 / +241 77 74 00 00 Fax: +241 174 52 86 /+241 1174 52 86 Mob: + 241 04194840 /+ 241 74194840

E-mail: Roaminghelpdesk@ga.airtel.com; marc.bulinqi@ga.airtel.com

In this field at least the contact points for the following functions should be given:

 Roaming Service Agreements and Scheduling

 International Gateway SS7 Service Agreements and Scheduling

## **PAGE 13/14**

## International gateway SS7 technical details

**Belgacom International Carrier Services** 

Rue Lebeau-4, 1000 Bruxelles

Tél: +32 2 547 51 51

Fax:

E-mail: customer.care@bics.com

**Contact for Technical Details, SS7 connection:** 

**Ms. Stevie BOYEMBE MEBALET** 

Tel: +241 074 00 00 / +241 77 74 00 00 Fax: +241 074 52 86 / +241 1174 52 86 Mob: +241 04 82 06 80 /+241 74 82 06 80

E-mail: stevie.boyembe@ga.airtel.com; RoamingHelpdesk@ga.airtel.com

# Contact point (address) for distribution of updating of the roaming database:

<del>17</del>

## **International Roaming**

## Ms Débora NGO-NSANG

Tel: +241 07 74 00 00 / +241 77 74 00 00 Fax: +241 174 52 86 /+241 1174 52 86 Mob: + 241 04210141 + 241 74210141

E-mail: Roaminghelpdesk@ga.airtel.com; debora.NGO@ga.airtel.com

Effective date of change: 14 April 2020

17

T his field is not a part of the database and is only used by the MoU PS when distributing updating information.