

## GSMA Roaming Database IR.21 Data



### RAEX IR.21 Information

Creation date:	2021-09-22
Creation time:	14:28:29+02:00
File type:	IR.21
Sender TADIG:	AAZ24
Publish Comment:	Update IR.21 schema version 15.0
TADIG-GEN schema version:	2.4
RAEX-IR.21 schema version:	15.0

ORGANISATION INFORMATION

Section ID: 1 (Mandatory)

Organisation name:	Sierra Wireless Solutions and Services SA
Country initials:	FRA

## History of changes

TADIG Code	Section ID	Section	Date	Description
AAZ24	16	Packet Data Service Information	2021-09-22	APN tests for Web and M2M
AAZ24	13	Network Elements Information	2021-02-25	IR.21. in PRD v13.1. format
AAZ24	17	IP Roaming/Networking Information	2021-02-08	Removal 185.x range
AAZ24	22	Hosted Networks	2021-02-08	Removal 185.x range
AAZ24	5	International SCCP Gateway	2021-01-05	Correction Comment for DPC
AAZ24	5	International SCCP Gateway	2021-01-04	Comfone SS7 peering removed
AAZ24	9	Test Numbers Information	2021-01-04	AAC numbers added
AAZ24	20	LTE Roaming Information	2021-01-04	Comfone removed
AAZ24	4	Routing Information	2020-09-04	IR.21. formerly MobiquiThings.
AAZ24	4	Routing Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	5	International SCCP Gateway	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	7	SCCP Protocol	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	8	Subscriber Identity Authentication	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	10	MAP	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	12	MAP Inter Operator SMS Enhancement	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	13	Network Elements Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	14	USSD Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	15	CAMEL Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	16	Packet Data Service Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	17	IP Roaming/Networking Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	20	LTE Roaming Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	21	Contact Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	23	M2M Roaming Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	24	MVNO Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	27	LPWA Roaming Information Section	2020-09-04	IR.21. in PRD v13.1. format
AAZ24	22	Hosted Networks	2020-09-04	IR.21. in PRD v13.1. format
AAZ29	4	Routing Information	2020-09-04	IR.21. in PRD v13.1. format
AAZ29	23	M2M Roaming Information	2020-09-04	IR.21. in PRD v13.1. format

**NETWORK**

TADIG code: AAZ24

Section ID: 2 (Mandatory, Repeating)

<b>TADIG code:</b>	AAZ24
<b>Network name:</b>	Sierra Wireless France
<b>Network type:</b>	Terrestrial
<b>Technology:</b>	<b>Frequency list:</b>
<b>2G-GSM frequencies:</b>	Unsupported
<b>3G-UTRA/FDD frequencies:</b>	Unsupported
<b>3G-UTRA/TDD frequencies:</b>	Unsupported
<b>4G-E-UTRAN frequencies:</b>	Unsupported
<b>4G-E-UTRAN-MIoT-LTE-M frequencies:</b>	Unsupported
<b>4G-E-UTRAN-MIoT-NB-IoT frequencies:</b>	Unsupported
<b>MIoT-NB-IoT deployment modes:</b>	4 - Hybrid
<b>5G NR frequencies:</b>	Unsupported

## NETWORK INFORMATION

TADIG code: AAZ24

Section ID: 3 (Mandatory)

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The following information refer to the network identified by TADIG code AAZ24

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**ROUTING INFORMATION**

TADIG code: AAZ24

Section ID: 4 (Mandatory)

Effective date of change: 2020-09-04

CCITT E.164 Number series	Country Code (CC)	National Destination Code (NDC)	SN Range Start	SN Range Stop	Primary International DPC	Secondary International DPC	MVNO Number	Location
<b>MSISDN number ranges (s)</b>								
	33	64162	0000	9949				
	33	65660	0000	9999				
	33	65662	0000	9999				
	33	65663	0000	9999				
	33	65664	0000	9999				
	33	65665	0000	9999				
	33	700002	0000000	9999999				
	33	700006	0000000	9998999				
	33	7546	00000	99999				
	33	7572	00000	99999				
	33	7573	00000	99999				
	33	7755	00000	99999				
	33	7756	00000	99998				
<b>Network Nodes Global Title Number Range(s)</b>								
	33	6416299	50	99				
	33	7000069999	000	999				

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	208	24

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	33	64162

Does Number Portability apply ?	No
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Is 15 Digit MSISDN Supported ?	Yes
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USIM SIM Header	893325
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Additional Information
--- IMSI to MGT associated to NUMBERING --- IMSI:20824XXXXXXXXXX -> MGT:33 64162XXXXXXXXX
All additional information (from here) also applicable for the following TADIG codes: AAZ29
--- GENERAL --- /// For Direct roaming agreement, this is also important to implement Section 22 (Hosted Networks) and 24 (MVNO Information).\\
--- NUMBERING ---
-- FRA --
* CC=33, MSISDN numbers have 11 or 15 digits (CC included), No portability.
* For French operators NDCs, please check below web link: <a href="https://www.arcep.fr/index.php?id=interactivenumeros">https://www.arcep.fr/index.php?id=interactivenumeros</a> - Choose English language at the top of the page.
-- IRM MVNO USA --
* CC 1, no Mobile Number Portability. Numbers have 11 digits (CC included).
* Numbers used are IRM (International Roaming MIN) (IRM) codes allocated by IFAST.
* CC 1, NDC 001, 002, 003, 004, 005, 006, 007, 014, 060, 080, 1000, 101.
-- MSISDN MVNO USA --

Additional Information
* CC 1, NDC under Number Portability. Due to portability, Sierra Wireless may use MSISDNs from other USA operators.
* CC=1, MSISDN numbers have 11 digits (CC included).
* The North America Carriers' MSISDN ranges comply with the GSM 03.03 and ITU-T E.164 and have a length of 11 digits. It is composed as follows:CC + NPA/NXX + X1...X4.
-- MSISDN MVNO GBR --
* CC 44, NDC under Number Portability. Due to portability, Sierra Wireless may use MSISDNs from other GBR operators.
* CC=44, MSISDN numbers have 12 digits (CC included).
-- MSISDN MVNO SWE --
* CC 46, NDC 71900000, 731311, 731312, 731313, 731314, 731315, 731316, 731317, 731318.
* CC=46, MSISDN numbers have 11 digits or 15 digits (CC included) , No portability.
-- MSISDN MVNO DEU --
* CC 49, NDC 15890.
* CC=49, MSISDN numbers have 13 digits (CC included).
--- VOICE ---
Voice Interconnect (termination) : In order to deliver voice calls from your subscribers to Sierra Wireless:
* CC=1 : Voice services currently available for MSISDN MVNO USA.
* CC=1: Voice services currently not available for IRM USA.
* CC=33 : Voice services currently available for MSISDN MVNO FRA. International/National voice carrier : Orange Wholesale France.
** IP-based interconnection for voice services (IPvIC) available.
* CC=44 : Voice services currently available for MSISDN MVNO GBR.
* CC=46 : Voice services currently not available for MSISDN MVNO SWE.
* CC=49 : Voice services currently not available for MSISDN MVNO DEU.
--- SMS ---
SMS Interconnect (termination) : This could be done through Bilateral Inter-Working agreement or through SMS Hub (GSMA IN.08).
Unless there is an AA.19 SMS Addendum in place, all international SMS traffic towards Sierra Wireless should be routed via SMS Hub. ;
Sierra Wireless is connected directly to the following SMS Hub: Belgacom (BICS) or SAP (former Sybase) or Syniverse or Orange.
Outgoing SMS from Sierra Wireless network can be delivered from an SMSC with a +1, +33, +44, +46 or +49 GT.
SMS Home Routing is enabled.
For SMS-MT, please route SRI4SM to Sierra Wireless MSISDN and allow AAZ24 HLR-address in your network (STPs, SMSCs) ;
The SMS traffic associated to Sierra Wireless/AAZ27 shall be only identified by the SRI4SM Ack SCCP Calling GT (defined into AAZ27 IR.21 in Section 13 relative to HLRs).
--- LTE ---
Recommendation for S6a hostnames: analysis of AVPs for routing, etc should be performed based upon Sierra Wireless's realm (i.e. epc.mnc024.mcc208.3gppnetwork.org) and not from specific hostnames.
IR21-Section 20: the IP addresses of Sierra Wireless's DEA are visible to our Diameter Signaling providers only.
--- MVNO --- IR21-Section 24 regarding MVNO ---
The roaming network shall authorize the MVNO Inter-PLMN IP Backbone, MVNO DNSs and MVNO ASNs.
APN Resolution: APN resolution is only associated with the "APN Operator Identifiers" defined in IR21-Section 16. A delegation response from the DNS defined in IR21-Section 16 using the MVNO DNS defined in IR21-Section 24 could be done.
The roaming network shall query the MVNO DNS if DNS defined in IR21-Section 16 respond with a forwarder.
--- DNS --- IR21-Section 17 ---
46.23.240.58 and 46.23.240.186 are deprecated. They can be used temporarily as DNS. This is recommended to use only 46.23.241.251 and 46.23.242.251.
For a direct roaming agreement regarding a VPLMN located into the Americas or Caribbean, the following DNS IP shall be used as primary for DNS requests : 192.119.177.187 and 192.119.185.187 as defined into IR21-Section 24.
For other VPLMN cases, DNS IP to be used as primary for DNS requests are into IR21-Section 17.
--- BILLING ---
For billing purpose, the following IP range shall be attributed to GBRJT : 46.23.240.72/30, 46.23.240.76/30, 46.23.240.80/29, 46.23.240.88/29 and not to AAZ24.

**History of changes**

Date	Description
2020-09-04	IR.21. formerly MobiquiThings.
2020-09-04	IR.21. in PRD v13.1. format



**INTERNATIONAL SCCP GATEWAY**

TADIG code: AAZ24

Section ID: 5 (Optional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2021-01-05

International SCCP carrier list	
<b>SCCP carrier name:</b>	Sierra Wireless (ETSI)
<b>Connectivity information:</b>	Primary
<b>MNO TADIG code list:</b>	
<b>DPC info:</b>	
Signature:	SW-IR-V01
Type:	Standalone SCCP
International DPC:	6.233.7
Comments:	MTP via Belgacom ICS, Orange International Carrier, Telecom Italia Sparkle
<b>DPC info:</b>	
Signature:	SW-IR-F01
Type:	Standalone SCCP
International DPC:	2.150.4
Comments:	MTP via Belgacom ICS, Orange International Carrier, Telecom Italia Sparkle
<b>DPC info:</b>	
Signature:	SW-IR-V02
Type:	Standalone SCCP
International DPC:	2.150.2
Comments:	MTP via Telia
<b>DPC info:</b>	
Signature:	SW-IR-F02
Type:	Standalone SCCP
International DPC:	2.150.3
Comments:	MTP via Telia
<b>SCCP carrier name:</b>	Orange International Carrier (ETSI)
<b>Connectivity information:</b>	Primary
<b>Comments:</b>	For roaming with ITU-T networks
<b>MNO TADIG code list:</b>	
<b>DPC info:</b>	
Signature:	Paris TK1
Type:	Standalone SCCP
International DPC:	2.202.3
Comments:	For ITU-T networks
<b>DPC info:</b>	
Signature:	Reims TK2
Type:	Standalone SCCP
International DPC:	2.202.4
Comments:	For ITU-T networks

<b>SCCP carrier name:</b>	Orange International Carrier (ANSI)
<b>Connectivity information:</b>	Primary
<b>Comments:</b>	For roaming with ANSI networks
<b>MNO TADIG code list:</b>	

<b>DPC info:</b>	
Signature:	Paris TK1
Type:	Standalone SCCP
International DPC:	6.254.15
Comments:	For ANSI networks (ANSI/ITU-T translation)

<b>DPC info:</b>	
Signature:	Reims TK2
Type:	Standalone SCCP
International DPC:	6.254.16
Comments:	For ANSI networks (ANSI/ITU-T translation)

<b>SCCP carrier name:</b>	Belgacom ICS (ETSI)
<b>Connectivity information:</b>	Primary
<b>Comments:</b>	For roaming with ITU-T networks
<b>MNO TADIG code list:</b>	

<b>DPC info:</b>	
Signature:	STR21TIH
Type:	Standalone SCCP
International DPC:	2.13.1
Comments:	For ITU-T networks

<b>DPC info:</b>	
Signature:	MAR22TIH
Type:	Standalone SCCP
International DPC:	2.14.7
Comments:	For ITU-T networks

<b>SCCP carrier name:</b>	Telecom Italia Sparkle (ETSI)
<b>Connectivity information:</b>	Primary
<b>Comments:</b>	For roaming with ITU-T networks
<b>MNO TADIG code list:</b>	

<b>DPC info:</b>	
Signature:	TIS Roma
Type:	Standalone SCCP
International DPC:	2.46.2
Comments:	For ITU-T networks

<b>DPC info:</b>	
Signature:	TIS Milano
Type:	Standalone SCCP
International DPC:	2.45.4
Comments:	For ITU-T networks

<b>SCCP carrier name:</b>	Telia (ETSI)
<b>Connectivity information:</b>	Primary
<b>Comments:</b>	For roaming with ITU-T networks

<b>MNO TADIG code list:</b>	
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<b>DPC info:</b>	
Signature:	Telia Stockholm S-UR2-STX
Type:	Standalone SCCP
International DPC:	2.81.2
Comments:	For ITU-T networks

<b>DPC info:</b>	
Signature:	Telia Stockholm S-UR-STX
Type:	Standalone SCCP
International DPC:	2.81.1
Comments:	For ITU-T networks

**History of changes**

Date	Description
2021-01-05	Correction Comment for DPC
2021-01-04	Comfone SS7 peering removed
2020-09-04	IR.21. in PRD v13.1. format

**SCCP Protocol available at PMN for connection for International SS7 Roaming**

TADIG code: AAZ24

Section ID: 7 (Optional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2020-09-04

SCCP Protocol available at PMN	Availability (Yes / No)
ETSI (ITU):	Yes
ANSI:	No

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**SUBSCRIBER IDENTITY AUTHENTICATION**

TADIG code: AAZ24

Section ID: 8 (Optional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2020-09-04

Authentications	Performed (Yes / No)
Authentication performed for Roaming subscribers at the commencement of GSM service	Yes
Authentication performed for roaming subscribers in case of GPRS	Yes
A5 Cipher Algorithm version in use	

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**Test Numbers Information**

TADIG code: AAZ24

Section ID: 9 (Optional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2021-01-05

Number Type	Test Number	Location	Comments
AAC	33775657534		11 digits
AAC	337000029999952		15 digits

**History of changes**

Date	Description
2021-01-04	AAC numbers added

**MOBILE APPLICATION PART (MAP)**

TADIG code: AAZ24

Section ID: 10 (Optional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2020-09-04

Interworking specifically for roaming				
Application context name	Current version in			Comments
	Inbound roaming		Outbound roaming	
	MSC/VLR	SGSN	Outbound roaming	
networkLocUp	-	N/A	MAPv3	"Outbound Roaming" denotes any one of the Node Type declared in Section 13.
roamingNumberEnquiry	-	N/A	MAPv3	
InfoRetrieval	-	-	MAPv3	
subscribeDataMngt	-	-	MAPv3	
networkFunctionalSs	-	N/A	MAPv2	
mwdMngt	-	-	MAPv3	
shortMsgMT-Relay (called shortMsgRelay in v1)	-	-	MAPv3	
shortMsgMO-Relay (called shortMsgRelay in v1)	-	-	-	
ss-InvocationNotification	-	N/A	-	
subscriberInfoEnquiry	-	-	MAPv3	
gprsLocationUpdate	N/A	-	MAPv3	
locationCancellation	-	-	MAPv2	
msPurging	-	-	MAPv3	
reset	-	-	MAPv2	
networksUnstructuredSs	-	N/A	MAPv2	
reporting	-	N/A	-	
callCompletion	-	N/A	-	
istAlerting	-	N/A	-	
service Termination	-	N/A	-	
locationSvcGateway	N/A	N/A	-	
mm-EventReporting	-	N/A	-	
authenticationFaillureReport	-	-	MAPv3	
imsiRetrieval	-	N/A	-	
gprsNotifyContext	N/A	-	-	
gprsLocationInfoRetrieval	N/A	-	-	
faillureReport	N/A	-	-	
secureTransportHandling	-	-	-	

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**MAP Inter Operator SMS Enhancement**

TADIG code: AAZ24

Section ID: 12 (Optional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2020-09-04

Inter - Operator SMS Enhancement				
Application context name	Current version in			Comments
	SMS - IWMSC	SMS - GMSC	HLR	
shortMsgGateway	N/A	-	MAPv2	SMS InterWorking through Bilateral agreement or through SMS Hub (GSMA IN.08).
shortMsgAlert	-	N/A	MAPv2	

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format



**NETWORK ELEMENTS INFORMATION**

TADIG code: AAZ24

Section ID: 13 (Optional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2021-02-25

Node type	Node ID	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	SW / HW version	UTC offset
GMSC		33 64162997 4 / 5					+01:00
GMSC		33 700006999940 0 / 9					+01:00
GMSC		33 700006999941 0 / 9					+01:00
HLR		33 64162995 0 / 9					+01:00
HLR		33 641629972					+01:00
HLR		33 64162998 1 / 6					+01:00
HLR		33 70000699990 00 / 99					+01:00
HLR		33 70000699991 00 / 99					+01:00
IP-SMGW		33 70000699993 00 / 99					+01:00
MMSC		33 641629998					+00:00
PGW							+01:00
SCP		33 641629978					+00:00
SCP		33 700006999942 0 / 9					+01:00
SMSC		33 64162996 0 / 9					+01:00
SMSC	Service Center	33 641629970					+01:00
SMSC		33 641629971					+01:00
SMSC		33 641629987					+01:00
SMSC	Service Center	33 641629990					+01:00
SMSC		33 64162999 1 / 4					+01:00
SMSC	Service Center	33 641629995					+01:00
SMSC		33 64162999 6 / 8					+01:00
SMSC	Service Center	33 641629999					+01:00
SMSC		33 70000699992 00 / 99					+01:00

**History of changes**

Date	Description
2021-02-25	IR.21. in PRD v13.1. format
2020-09-04	IR.21. in PRD v13.1. format

**USSD Information**

TADIG code: AAZ24

Section ID: 14 (Optional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2020-09-04

<b>USSD capability available</b>	Yes
<b>Supported phase</b>	Phase 2

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**CAMEL INFO**

TADIG code: AAZ24

Section ID: 15 (Conditional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2020-09-04

**gsmSSF/MSC**

CAP Version supported (Inbound)	CAP Version supported (Outbound)
	CAPv1 CAPv2 CAPv3

**CAMEL Functionality Information**

Service(s) Name	SK	CAP Version	SCP GT addresses
SCP	20	CAPv1	33 641629978
SCP	20	CAPv2	33 641629978
SCP	22	CAPv3	33 641629978

**CAPv4 Partial Implementations**

CAMEL Phase 4 CSIs:	Supported (Yes / No)	Planned Date
MT-SMS-CSI		
MG-CSI		
PSI Enhancements		

**CAMEL Rerouting Numbering**

3365660xxxxxxx  
 3365662xxxxxxx  
 3365663xxxxxxx  
 3365664xxxxxxx  
 3365665xxxxxxx  
 337546xxxxxxx

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**Packet Data Services Information**

TADIG code: AAZ24

Section ID: 16 (Conditional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2021-09-22

**List of APN Operator Identifiers**

APN Operator Identifier	Description	Example
mnc024.mcc208.gprs	2 digits	internet.swir.mnc024.mcc208.gprs
mnc024.mcc208.3gppnetwork.org	2 digits	internet.swir.mnc024.mcc208.3gppnetwork.org
mnc003.mcc208.gprs	2 digits	internet.swir.mnc003.mcc208.gprs
mnc003.mcc208.3gppnetwork.org	2 digits	internet.swir.mnc003.mcc208.3gppnetwork.org

**List of APN's available for testing and troubleshooting****APN WEB List**

APN Credential			APN Type	ISP DNS IP address (primary)	ISP DNS IP address (secondary)
APN	Username	Password			
internet.swir			H-APN		

**APN WAP List**

APN Credential			APN Type	WAP Gateway	WAP Server URL	WAP Port ver 1	WAP Port ver 2
APN	Username	Password		IP address			

**APN MMS List**

APN	APN Credential		WAP Gateway IP address for MMS	Messaging Server URL
	Username	Password		

**APN M2M List**

APN	Username	Password	ISP DNS IP Address Primary	ISP DNS IP Address Secondary
internet.swir				

**IPv6 Connectivity Information**

	IPv6 PDP Supported	IPv4v6 PDP Supported
SGSN Support	No	No
GGSN Support	Yes	No

**List of 2G/3G QOS profiles**

Profile name:	QoS-2/3G
Traffic class:	Interactive
ARP:	2, 3
Evolved ARP support:	No
Evolved ARP priority level:	
Evolved APR preemption vulnerability list:	
Evolved APR preemption capability list:	
Delivery order:	Yes

**GTP Version**

SGSN	GTPv0
GGSN	GTPv1

**List of Data Service supported**

2G Data Services	Multislot Class Capability
GPRS	
EDGE	

3G Data Services	UE 3G Category
3GPP	
HSUPA	
HSDPA	

Multiple PDP Context Support	
Number of Primary PDP Context	2

**History of changes**

Date	Description
2021-09-22	APN tests for Web and M2M
2020-09-04	IR.21. in PRD v13.1. format

**IP - Roaming and IP - Interworking Information**

TADIG code: AAZ24

Section ID: 17 (Conditional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2021-02-08

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range
	46.23.240.56/29
	46.23.240.72/30
	46.23.240.76/30
	46.23.240.80/29
	46.23.240.88/29
	46.23.240.96/29
	46.23.240.184/29
	46.23.240.208/29
	46.23.241.248/29
	46.23.242.248/29

List of Autonomous System Number (ASN):	ASN
	65111

List of Autonomous System Number (ASN4B):	ASN4B
	197465

List of PMN authoritative DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
46.23.241.251		ns1.mnc024.mcc208.gprs
46.23.242.251		ns2.mnc024.mcc208.gprs
46.23.241.251		ns1.mnc024.mcc208.3gppnetwork.org
46.23.242.251		ns2.mnc024.mcc208.3gppnetwork.org
46.23.240.58		dns1.mbqt.net.mnc024.mcc208.gprs (deprecated)
46.23.240.186		dns2.mbqt.net.mnc024.mcc208.gprs (deprecated)
46.23.240.58		dns1.mnc024.mcc208.3gppnetwork.org (deprecated)
46.23.240.186		dns2.mnc024.mcc208.3gppnetwork.org (deprecated)

List of GRX Providers	GRX Provider
	Belgacom ICS Orange International Carrier

**History of changes**

Date	Description
2021-02-08	Removal 185.x range
2020-09-04	IR.21. in PRD v13.1. format

**LTE Roaming Information**

TADIG code: AAZ24

Section ID: 20 (Optional)

Section is also applicable for the following TADIG codes:

AAZ29

Effective date of change: 2021-01-04

IPX Provider Name	IPX DA Realm Used	Diameter Architecture
Belgacom ICS	dra.bics.3gppnetwork.org	Option5
Primary IP address of DA	Secondary IP address of DA	
IPX Provider Name	IPX DA Realm Used	Diameter Architecture
Orange International Carrier	dea.orange-multimedia.net	Option5
Primary IP address of DA	Secondary IP address of DA	
IPX Provider Name	IPX DA Realm Used	Diameter Architecture
Sparkle – Telecom Italia	net2mobile.grx	Option5
Primary IP address of DA	Secondary IP address of DA	

**Roaming Interconnection**

EPC Realms For Roaming	
	epc.mnc024.mcc208.3gppnetwork.org
	epc.mnc003.mcc208.3gppnetwork.org

**FQDN Diameter Edge Agent**

FQDN	Primary IP Address DEA FQDN	Secondary IP Address DEA FQDN
S6a Supported without IWF	S6a MAP IWF supported to HSS	S6a MAP IWF supported to MME
true	false	false
S6d used for legacy SGSN	S9 used for PCC	
false	false	

**SMS ITW**

SMS delivery over IP	SMS over NAS (SGs) via SS7	SMS over NAS (SGd) via Diameter
false	false	false

**Voice ITW**

CSFB

**Roaming CS Fallback**

Roaming Forward (MTRF)

LTE Roaming Agreement Only	LTE Only Roaming Supported	HPMN	VPMN
2G/3G Roaming Agreement Only	Scenario 2 Supported	Yes	No
	Scenario 3 Supported	Yes	No
2G/3G/LTE Roaming Agreement	Scenario 1 Supported	No	No
	Scenario 2 Supported	Yes	No
	Scenario 3 Supported	No	No
	Scenario 4 Supported	Yes	No
	Scenario 5 Supported	No	No
	Scenario 6 Supported	No	No

**List of LTE QoS profiles**

Profile name:	QoS-Standard
QCI Value List:	7
QOS ARP List:	6
ARP Preemption Vulnerability List:	0
ARP Preemption Capability List:	0
Profile name:	QoS-Internet
QCI Value List:	9
QOS ARP List:	14
ARP Preemption Vulnerability List:	0
ARP Preemption Capability List:	1
Profile name:	QoS-Video-NonGBR

QCI Value List:	8
QOS ARP List:	14
ARP Preemption Vulnerability List:	0
ARP Preemption Capability List:	0
<b>Profile name:</b>	<b>QoS-Video-GBR</b>
QCI Value List:	2
QOS ARP List:	14
ARP Preemption Vulnerability List:	0
ARP Preemption Capability List:	0
<b>Profile name:</b>	<b>QoS-IMS-Signaling</b>
QCI Value List:	5
QOS ARP List:	12
ARP Preemption Vulnerability List:	1
ARP Preemption Capability List:	0
<b>Profile name:</b>	<b>QoS-Conversational-Voice</b>
QCI Value List:	1
QOS ARP List:	12
ARP Preemption Vulnerability List:	1
ARP Preemption Capability List:	0
<b>Profile name:</b>	<b>QoS-MCPTT</b>
QCI Value List:	65
QOS ARP List:	1
ARP Preemption Vulnerability List:	1
ARP Preemption Capability List:	0
<b>Profile name:</b>	<b>QoS-Non-MCPTT</b>
QCI Value List:	66
QOS ARP List:	3
ARP Preemption Vulnerability List:	1
ARP Preemption Capability List:	0
<b>Profile name:</b>	<b>QoS-MC-Signaling</b>
QCI Value List:	69
QOS ARP List:	2
ARP Preemption Vulnerability List:	1
ARP Preemption Capability List:	0
<b>Profile name:</b>	<b>QoS-MC-Data</b>
QCI Value List:	70
QOS ARP List:	4
ARP Preemption Vulnerability List:	1
ARP Preemption Capability List:	0

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

5G early drop support		
	As HPMN	AS VPMN
5G NSA (non-standalone access) supported	No	No
DNS PGW NAPTR includes +nc-nr	No	No
NSA options for EN-DC		
ARD set to support of NR as secondary RAT	No	
Restrict NR access if HSS is not set to support NR as secondary RAT		No

## History of changes

Date	Description
2021-01-04	Comfone removed
2020-09-04	IR.21. in PRD v13.1. format



**Hosted networks**

TADIG code: AAZ24

Section ID: 22 (Optional, Repeating)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2021-02-08

**List of Hosted Networks****Hosted Network Data****Network Name:** Hosted Network**Country:** SWE**TADIG code:** AAZ27**Network type:** Terrestrial**List of Hosted Network Nodes**

Node Type	GT (E. 164) Address(es)	IP Addresses / IP Address Ranges
SGSN	46731311 -	

**History of changes**

Date	Description
2021-02-08	Removal 185.x range
2020-09-04	IR.21. in PRD v13.1. format

**M2M Roaming Information**

TADIG code: AAZ24

Section ID: 23 (Conditional)

Effective date of change: 2020-09-04

<i>List of Sub Range IMSI</i>	Subrange IMSI	Description	Example
	20824	M2M range	

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**MVNO Information**

TADIG code: AAZ24

Section ID: 24 (Conditional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2020-09-04

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range
	192.119.177.160/29
	192.119.185.160/29
	87.237.159.0/24
	192.119.177.184/29
	192.119.185.184/29

List of Autonomous System Number (ASN):	ASN
	55083
	64824
	8464
	65112

List of Autonomous System Number (ASN4B):	ASN4B
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List of PMN authoritative DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
46.23.241.250		2nd level DNS server
46.23.242.250		2nd level DNS server
192.119.177.187		ns3.mnc024.mcc208.gprs
192.119.177.187		ns3.mnc024.mcc208.3gppnetwork.org
192.119.185.187		ns4.mnc024.mcc208.gprs
192.119.185.187		ns4.mnc024.mcc208.3gppnetwork.org

List of GRX Providers	GRX Provider
	Belgacom ICS Orange International Carrier Syniverse TeliaSonera International Carrier

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**LPWA Roaming Information Section**

TADIG code: AAZ24

Section ID: 27 (Conditional)

**Section is also applicable for the following TADIG codes:**

AAZ29

Effective date of change: 2020-09-04

LTE-M services supported as HPMN	
Power saving mode (PSM)	Supported
Extended discontinuous reception (eDRX)	Supported
Connected mode mobility (CMM)	Unsupported
Coverage enhancement (CE) mode A	Unsupported
Coverage enhancement (CE) mode B	Unsupported
SMS	Supported
VoLTE	Unsupported

NB-IoT services supported as HPMN	
Power saving mode (PSM)	Supported
Extended discontinuous reception (eDRX)	Supported
Coverage extension	Unsupported
SMS	Supported

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**CONTACT INFORMATION**

TADIG code: AAZ24

Section ID: 21 (Optional, Repeating)

Section is also applicable for the following TADIG codes:

AAZ29

Effective date of change: 2020-09-04

**List of Roaming Troubleshooting Contact Information****Roaming Troubleshooting Contact Information**

<b>Location</b>	Sophia-Antipolis		
<b>Office Time Zone in UTC</b>	+01:00		
<b>Office Hours</b>	<b>Week Day (s)</b>	<b>Start Time</b>	<b>End Time</b>
	Mon Tue Wed Thu Fri	09:00:00	18:00:00

**Main Contact for Troubleshooting (Office Hours)**

Team Name	Tel.	Mobile	Fax	Email
Helpdesk				MOB-helpdesk@sierrawireless.com

**Escalation Contact for Troubleshooting**

Person Name	Tel.	Mobile	Fax	Email
GNOC Center	18443677939			MOB-noc@sierrawireless.com

**24 x 7 Troubleshooting (contact out of Office Hours)**

Team Name	Tel.	Mobile	Fax	Email
NOC	18443677939			MOB-noc@sierrawireless.com

**Roaming Troubleshooting Ticketing System Information**

Ticket system web address

Ticket system email address

**Additional Contacts****SCCP Inquires and ordering of SS7 Routes**

Person Name	Tel.	Mobile	Fax
Roaming Team			
JobTitle	Email		
	MOB-roaming.team@sierrawireless.com		

**Roaming Coordinator**

Person Name	Tel.	Mobile	Fax
Roaming Team			
JobTitle	Email		
	MOB-roaming.team@sierrawireless.com		

**IREG Tests**

Person Name	Tel.	Mobile	Fax
Roaming Team			
JobTitle	Email		
	MOB-roaming.team@sierrawireless.com		

**TADIG Tests**

Person Name	Tel.	Mobile	Fax
Roaming Team			
JobTitle	Email		
	MOB-roaming.team@sierrawireless.com		

**IR21 Distribution Email Address**

Email
MOB-ir21@sierrawireless.com

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**SECTIONS NOT IN USE**

TADIG Code	Section ID	Section Name
AAZ24	6	Domestic SCCP Gateway
AAZ24	11	MAP Optimal Routing Section
AAZ24	18	MMS Interworking Information
AAZ24	19	WLAN Information
AAZ24	26	VoLTE Roaming Information Section

**NETWORK**

TADIG code: AAZ29

Section ID: 2 (Mandatory, Repeating)

<b>TADIG code:</b>	AAZ29
<b>Network name:</b>	Sierra Wireless France
<b>Network type:</b>	Terrestrial
<b>Technology:</b>	<b>Frequency list:</b>
<b>2G-GSM frequencies:</b>	Unsupported
<b>3G-UTRA/FDD frequencies:</b>	Unsupported
<b>3G-UTRA/TDD frequencies:</b>	Unsupported
<b>4G-E-UTRAN frequencies:</b>	Unsupported
<b>4G-E-UTRAN-MIoT-LTE-M frequencies:</b>	Unsupported
<b>4G-E-UTRAN-MIoT-NB-IoT frequencies:</b>	Unsupported
<b>MIoT-NB-IoT deployment modes:</b>	4 - Hybrid
<b>5G NR frequencies:</b>	Unsupported

## NETWORK INFORMATION

TADIG code: AAZ29

Section ID: 3 (Mandatory)

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The following information refer to the network identified by TADIG code AAZ29

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**ROUTING INFORMATION**

TADIG code: AAZ29

Section ID: 4 (Mandatory)

Effective date of change: 2020-09-04

CCITT E.164 Number series	Country Code (CC)	National Destination Code (NDC)	SN Range Start	SN Range Stop	Primary International DPC	Secondary International DPC	MVNO Number	Location
<b>MSISDN number ranges (s)</b>								
	33	7756	99999	99999				
<b>Network Nodes Global Title Number Range(s)</b>								
	33	7756	99999	99999				

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	208	03

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	33	775

Does Number Portability apply ?	No
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Is 15 Digit MSISDN Supported ?	Yes
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Additional Information
--- IMSI to MGT associated to NUMBERING --- IMSI:20803XXXXXXXXXX -> MGT:33 7756XXXXXXXXXX
--- SHARED NETWORK ---
AAZ29 is a shared network associated to AAZ24.

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**M2M Roaming Information**

TADIG code: AAZ29

Section ID: 23 (Conditional)

Effective date of change: 2020-09-04

<i>List of Sub Range IMSI</i>	Subrange IMSI	Description	Example
	20803	M2M range	

**History of changes**

Date	Description
2020-09-04	IR.21. in PRD v13.1. format

**SECTIONS NOT IN USE**

TADIG Code	Section ID	Section Name
AAZ29	5	International SCCP Gateway
AAZ29	6	Domestic SCCP Gateway
AAZ29	7	SCCP Protocol available at PMN for connection for International SS7 Roaming
AAZ29	8	Subscriber Identity Authentication
AAZ29	9	Test Numbers Information
AAZ29	10	Mobile Application Part (MAP) Section
AAZ29	11	MAP Optimal Routing Section
AAZ29	12	MAP Inter Operator SMS Enhancement
AAZ29	13	Network Elements Information
AAZ29	14	USSD Information
AAZ29	15	CAMEL Information
AAZ29	16	Packet Data Services Information
AAZ29	17	IP-Roaming and IP-Interworking Information
AAZ29	18	MMS Interworking Information
AAZ29	19	WLAN Information
AAZ29	20	Roaming in Long Term Evolution
AAZ29	22	Hosted Networks
AAZ29	21	Contact Information
AAZ29	24	MVNO Information
AAZ29	26	VoLTE Roaming Information Section
AAZ29	27	LPWA Roaming Information Section