

GSMA Roaming Database IR.21 Data

RAEX IR.21 Information

Creation date:	2021-05-20
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Sender TADIG:	AUSTA
Publish Comment:	Network Elements & M2M IMSI updated
TADIG-GEN schema version:	2.4
RAEX-IR.21 schema version:	14.0

ORGANISATION INFORMATION

Section ID: 1 (Mandatory)

Organisation name:	Telstra Corporation Limited
Country initials:	AUS

History of changes

TADIG Code	Section ID	Section	Date	Description
AUSTA	13	Network Elements Information	2021-05-18	Further additions to the network elements
AUSTA	5	International SCCP Gateway	2021-05-14	New 3G SCP DPC 5.10.2
AUSTA	4	Routing Information	2021-05-12	Removed M2M IMSI range information
AUSTA	13	Network Elements Information	2021-05-12	Removed exited nodes & added new nodes
AUSTA	13	Network Elements Information	2021-05-12	Removing duplicate node
AUSTA	23	M2M Roaming Information	2021-05-12	Populated Telstra M2M outbound IMSI ranges
AUSTA	20	LTE Roaming Information	2021-04-16	Correcting the IMS Signalling ARP value for VoLTE roaming
AUSTA	4	Routing Information	2021-04-12	Added Note 12 to include Telstra's IOT IMSI Ranges
AUSTA	13	Network Elements Information	2021-04-12	Two new SMSC GTs (61418706497 & 61418706782)
AUSTA	17	IP Roaming/Networking Information	2020-12-10	Added subnet to 134.159.22.216/32 & 134.159.22.217/32 for clarity and ASN 65529 (private)
AUSTA	4	Routing Information	2020-11-27	Added new NDC range 61 4803
AUSTA	4	Routing Information	2020-11-27	Updated M2M IMSI ranges in the description
AUSTA	17	IP Roaming/Networking Information	2020-11-27	Added IP backbone addresses 134.159.22.216 & 134.159.22.217
AUSTA	20	LTE Roaming Information	2020-11-27	Added VoLTE QoS Profile for AUSTA roamers
AUSTA	26	VoLTE Roaming Information Section	2020-11-27	Added VoLTE roaming support
AUSTA	17	IP Roaming/Networking Information	2020-06-05	Added new IP backbone range 149.135.128.0/24
AUSTA	4	Routing Information	2020-05-11	Correction to NDC range 61 486. From 61 486 00000 to 61 486 000000
AUSTA	13	Network Elements Information	2020-05-11	Adding new virtual SGSN/MME with address range 149.135.132.0/24
AUSTA	4	Routing Information	2020-05-04	Added NDCs 61 486, 61 493[2-4]
AUSTA	4	Routing Information	2020-02-17	Add new range 61 493 [0-1]
AUSTA	21	Contact Information	2020-01-23	Modified contacts
AUSTA	17	IP Roaming/Networking Information	2020-01-22	Added 149.135.15.0/24, 149.135.135.0/24, 149.135.157.0/24
AUSTA	4	Routing Information	2020-01-17	Added new NDC range 61 4838
AUSTA	27	LPWA Roaming Information Section	2020-01-17	Updated supported LTE-M and NB-IOT services
AUSTA	4	Routing Information	2019-08-08	Added NDCs 61 491[8-9], 61 492[0-9]
AUSTA	13	Network Elements Information	2019-08-08	Adding/Removing HLR & SMSC GTs
AUSTA	13	Network Elements Information	2019-08-02	Updated SGSN NE GT versions
AUSTA	4	Routing Information	2019-07-23	Added 61 460 [5-9], 61 482 [4-9], 61 483 [0-3]
AUSTA	21	Contact Information	2019-07-15	Updated SCCP contact
AUSTA	4	Routing Information	2019-05-14	Added NDCs 4802, 460[0-4]
AUSTA	9	Test Numbers Information	2019-05-14	Updated test numbers section
AUSTA	20	LTE Roaming Information	2019-05-14	Updated for RAEX compliance
AUSTA	21	Contact Information	2019-05-14	Contact Information Updates
AUSTA	4	Routing Information	2018-12-06	Changes for NDCs 436,444,469,470,480,489,491
AUSTA	4	Routing Information	2018-12-06	Updates to Additional NDCs under Note 4
AUSTA	13	Network Elements Information	2018-12-06	Update to prepaid SCP vendor
AUSTA	16	Packet Data Service Information	2018-12-06	Changes to achieve conformance with RAEX schema
AUSTA	17	IP Roaming/Networking Information	2018-07-25	Removed IP range 149.135.130.0/24
AUSTA	21	Contact Information	2018-07-25	Contact updated
AUSTA	21	Contact Information	2018-06-22	Contact information changes
AUSTA	13	Network Elements Information	2018-03-20	Add two new SMSC addresses 61418706419 and 61418706768
AUSTA	17	IP Roaming/Networking Information	2017-11-17	Expanded DNS IP ranges
AUSTA	13	Network Elements Information	2017-11-10	Updated SGSN-MME GT and IP Addresses
AUSTA	13	Network Elements Information	2017-11-10	GGSN changes

TADIG Code	Section ID	Section	Date	Description
AUSTA	13	Network Elements Information	2017-11-10	MSC/VLR GT updated
AUSTA	17	IP Roaming/Networking Information	2017-11-06	6/11/2017 Add IP PMN backbone range 149.135.130.0/24
AUSTA	20	LTE Roaming Information	2017-11-06	Added IPX information
AUSTA	20	LTE Roaming Information	2017-11-06	LTE QoS information
AUSTA	13	Network Elements Information	2016-09-08	Added Kent WME HSS FE 1 & FE2
AUSTA	17	IP Roaming/Networking Information	2016-09-08	Please note that Telstra may not advertise all IP address ranges used by PMN for connection to inter - PMN IP backbone
AUSTA	20	LTE Roaming Information	2015-09-15	removed duplicated data.
AUSTA	20	LTE Roaming Information	2015-09-15	Diameter DEA Information modified - DEA IP addresses are available upon request.
AUSTA	20	LTE Roaming Information	2015-09-14	Added extra information - Diameter FQDN + EPC Realm + LTE QoS info.
AUSTA	13	Network Elements Information	2015-09-07	Updated SGSNs (from Mark VI+ [Decommission] to Mark 10), effective immediately.
AUSTA	20	LTE Roaming Information	2015-09-07	removed duplicated data.
AUSTA	13	Network Elements Information	2015-03-30	New Network Node SGSN/MME added
AUSTA	16	Packet Data Service Information	2015-03-06	Added APN Operator Identifier for LTE.
AUSTA	17	IP Roaming/Networking Information	2015-03-06	Removed Inter PLMN IP Address Range 149.135.132.0/24
AUSTA	13	Network Elements Information	2015-01-15	SCP GT info updated.
AUSTA	13	Network Elements Information	2015-01-15	New SCP GT added.
AUSTA	13	Network Elements Information	2014-10-28	SMSC GT Removed
AUSTA	5	International SCCP Gateway	2013-10-14	updated SCCP connectivity information to meet RAEX validation requirement
AUSTA	13	Network Elements Information	2013-10-14	Added CXMS HLR
AUSTA	20	LTE Roaming Information	2013-10-14	Added indication of LTE QCI value and LTE Qos Profile for RAEX Validation
AUSTA	20	LTE Roaming Information	2013-01-25	Added RILTE Information
AUSTA	15	CAMEL Information	2012-08-02	Updates to Partial implementations supported in CAP version 4

NETWORK

TADIG code: AUSTA

Section ID: 2 (Mandatory, Repeating)

TADIG code:	AUSTA
Network name:	Telstra
Network type:	Terrestrial
Technology:	Frequency list:
2G-GSM frequencies:	Unsupported
3G-UTRA/FDD frequencies:	5 - 850 MHz
3G-UTRA/TDD frequencies:	Unsupported
4G-E-UTRAN frequencies:	3 - DCS 1800, 28 - 700 MHz APAC, 7 - 2.6 GHz, 1 - IMT 2.1 GHz, 8 - 900 MHz
4G-E-UTRAN-MIoT-LTE-M frequencies:	28 - 700 MHz APAC
4G-E-UTRAN-MIoT-NB-IoT frequencies:	28 - 700 MHz APAC
MIoT-NB-IoT deployment modes:	Unsupported
Presentation of country initials and MNN:	Telstra AUS
Abbreviated MNN:	Telstra

NETWORK INFORMATION

TADIG code: AUSTA
Section ID: 3 (Mandatory)

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

ROUTING INFORMATION

TADIG code: AUSTA

Section ID: 4 (Mandatory)

Effective date of change: 2021-05-12

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
MSISDN number ranges (s)								
	61	400	000000	999999				
	61	407	000000	999999				
	61	408	000000	999999				
	61	409	000000	999999				
	61	417	000000	999999				
	61	418	000000	999999				
	61	419	000000	999999				
	61	427	000000	999999				
	61	428	000000	999999				
	61	429	000000	999999				
	61	436	000000	999999				
	61	437	000000	999999				
	61	438	000000	999999				
	61	439	000000	999999				
	61	444	400000	599999				
	61	447	000000	999999				
	61	448	000000	999999				
	61	455	000000	999999				
	61	456	000000	999999				
	61	457	000000	999999				
	61	458	000000	999999				
	61	459	000000	999999				
	61	460	000000	999999				
	61	467	000000	999999				
	61	469	000000	449999			Yes	
	61	469	540000	999999			Yes	
	61	470	000000	789999			Yes	
	61	472	500000	999999				
	61	473	000000	999999				
	61	474	000000	999999				
	61	475	000000	999999				
	61	476	000000	999999				
	61	477	000000	999999				
	61	480	100000	199999				
	61	480	200000	299999				
	61	480	300000	399999				
	61	482	400000	999999				
	61	483	000000	399999				
	61	483	800000	899999				
	61	484	000000	999999				
	61	486	000000	999999				

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
MSISDN number ranges (s)								
	61	487	000000	999999				
	61	488	000000	799999				
	61	488	900000	999999				
	61	490	000000	999999				
	61	491	000000	499999				
	61	491	600000	999999				
	61	492	000000	999999				
	61	493	000000	499999				
	61	497	000000	999999				
	61	498	000000	999999				
	61	499	000000	999999				

Network Nodes Global Title Number Range(s)								
	61	418	000000	999999				

MSRN Number Range(s)								
	61	4180	00000	99999				

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	505	01

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	61	408

Does Number Portability apply ?	Yes
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Is 15 Digit MSISDN Supported ?	No
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USIM SIM Header	896101
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Additional Information
Note 1:
IP Roaming/Networking Information : Please note that Telstra may not advertise all IP address ranges used by PMN for connection to inter - PMN IP backbone. These ranges are reserved and are not currently advertised:
144.135.14.0/24
144.135.15.0/24
149.135.134.0/24
Note 3:
MSRNs are in the form +61 4180 xxxxx with a fixed length of 11 digits
61 41802 xxxx : Sydney
61 41804 xxxx : Sydney
61 41803 xxxx : Melbourne
61 41805 xxxx : Melbourne
61 41806 xxxx : Brisbane & Gold Coast
61 41807 xxxx : Brisbane & Gold Coast
61 41808 xxxx : Adelaide
61 41809 xxxx : Perth & Christmas Island
Note 4:
Lycamobile MVNO makes use of Telstra numbers CC=61 NDC=469, 470

Additional Information	
Additional NDCs : Due to Mobile Number Portability, Telstra MobileNet may also use the following number series from other Australian operators. MSISDN numbering has a fixed length of 11 digits:	
Optus : CC=61 NDC=401, 402, 403, 411, 412, 413, 421, 422, 423, 431, 432, 434, 435, 466, 468(3-9), 478, 479(0,1), 481, 482(0-3)	
Vodafone : CC=61 NDC=404, 405, 406, 410, 414, 415, 416, 420(2-9), 424, 425, 426, 430, 433, 449(0-2,5-9), 450, 451, 452(0-6)	
Globalstar Australia : CC=61 NDC=42010, 4888 Pivotal : CC=61 NDC=4800, 4808, 4858, 4899 TPG Mobile : CC=61 NDC=42012, 4493	
To enable successful delivery of SMS from your customers to Telstra MobileNet customers, please implement all of the above Additional NDCs as a GT in your mobile and international network if you do not have a roaming agreement with the above operators.	
Note 5:	
Telstra supports A5 Cipher Algorithm versions 1 and 3	
Note 6:	
Telstra NDCs 46710 – 46714 are reserved for use by Telstra M2M services and the following IMSI subrange is reserved for use by M2M services: 50501 349 (7-9), 505 01 40999, 505 01 600, 505 01 6100, 505 01 611, 505 01 62 (0-1), 505 01 6300 (0-1)	
Note 7:	
Telstra offers interworking for SMS over CAMEL for inbound roamers on Telstra networks	
Telstra does not support SMS over GPRS	
Note 8:	
The roaming partner network must support CAMEL Version 2 (or above) to allow Telstra customers to roam with CAMEL on the roaming partner network.	
If the roaming partner network supports only CAMEL Version 1 then CAMEL roaming for Telstra customers will not be possible on the roaming partner network.	
Note 9:	
CAMEL short codes for Telstra customers:	
Messagebank (voice mail) (postpaid and prepaid) = 101, +61101	
Customer Care (postpaid and prepaid) = 125109, 125111, 125117	
Recharge (prepaid only) = 1258888	
Note 10:	
Telstra GSM Mobile Originated SMS +61 418 706 700 (main number translates to various GSM SMSCs). The list of SMSC GTs appears in Network Elements Information.	
Note 11:	
Telstra SGSNs support GTP Versions 0 and 1. Telstra GGSNs support GTP Version 1 only. GTP Ports in use are:	
GTP UDP Destination Ports = 2123, 2152, 3386	
GTP UDP Source Ports = 2123, 2152, 3386 and 49152 to 65535	
GTP UDP/TCP Source/Destination Port = 3386	

History of changes

Date	Description
2021-05-12	Removed M2M IMSI range information
2021-04-12	Added Note 12 to include Telstra's IOT IMSI Ranges
2020-11-27	Added new NDC range 61 4803
2020-11-27	Updated M2M IMSI ranges in the description
2020-05-11	Correction to NDC range 61 486. From 61 486 00000 to 61 486 000000
2020-05-04	Added NDCs 61 486, 61 493[2-4]
2020-02-17	Add new range 61 493 [0-1]
2020-01-17	Added new NDC range 61 4838
2019-08-08	Added NDCs 61 491[8-9], 61 492[0-9]
2019-07-23	Added 61 460 [5-9], 61 482 [4-9], 61 483 [0-3]
2019-05-14	Added NDCs 4802, 460[0-4]
2018-12-06	Changes for NDCs 436,444,469,470,480,489,491
2018-12-06	Updates to Additional NDCs under Note 4

INTERNATIONAL SCCP GATEWAY

TADIG code: AUSTA

Section ID: 5 (Optional)

Effective date of change: 2021-05-14

International SCCP carrier list	
SCCP carrier name:	Telstra International (Reach)
Connectivity information:	Primary
MNO TADIG code list:	
DPC info:	
Signature:	AUS-NNH1
Type:	International SCCP Gateway
International DPC:	5.11.3
Comments:	Sydney 3G HLR 1
DPC info:	
Signature:	AUS-NHH1
Type:	International SCCP Gateway
International DPC:	5.11.2
Comments:	Sydney 3G HLR 2
DPC info:	
Signature:	AUS-OCEP
Type:	Oracle SCP Gateway
International DPC:	5.10.2
Comments:	Sydney 3G SCP

History of changes

Date	Description
2021-05-14	New 3G SCP DPC 5.10.2
2013-10-14	updated SCCP connectivity information to meet RAEX validation requirement

SCCP Protocol available at PMN for connection for International SS7 Roaming

TADIG code: AUSTA

Section ID: 7 (Optional)

Effective date of change: 2019-05-14

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

History of changes

SUBSCRIBER IDENTITY AUTHENTICATION

TADIG code: AUSTA

Section ID: 8 (Optional)

Effective date of change: 2011-05-14

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	A5/1 and A5/3

History of changes

Test Numbers Information

TADIG code: AUSTA

Section ID: 9 (Optional)

Effective date of change: 2019-05-14

Number Type	Test Number	Location	Comments
AAC	61418707399	various MSC/VLR	recorded announcement provides Telstra MSC Name
AAC	61418707803	various MSC/VLR	recorded announcement provides Telstra MSC Name

History of changes

Date	Description
2019-05-14	Updated test numbers section

MOBILE APPLICATION PART (MAP)

TADIG code: AUSTA

Section ID: 10 (Optional)

Effective date of change: 2019-05-14

Interworking specifically for roaming				
Application context name	Current version in			Comments
	Inbound roaming		Outbound roaming	
	MSC/VLR	SGSN	Outbound roaming	
networkLocUp	MAPv3	N/A	MAPv3	
roamingNumberEnquiry	MAPv3	N/A	MAPv3	
InfoRetrieval	MAPv3	MAPv3	MAPv3	
subscribeDataMngt	MAPv3	MAPv3	MAPv3	
networkFunctionalSs	MAPv3	N/A	MAPv3	
mwdMngt	MAPv3	-	MAPv3	
shortMsgMT-Relay (called shortMsgRelay in v1)	MAPv3	-	MAPv3	
shortMsgMO-Relay (called shortMsgRelay in v1)	MAPv3	-	MAPv3	
ss-InvocationNotification	MAPv3	N/A	MAPv3	
subscriberInfoEnquiry	MAPv3	MAPv3	MAPv3	
gprsLocationUpdate	N/A	MAPv3	MAPv3	
locationCancellation	MAPv3	MAPv3	MAPv3	
msPurging	MAPv3	MAPv3	MAPv3	
reset	MAPv2	MAPv2	MAPv2	
networksUnstructuredSs	MAPv2	N/A	MAPv2	
reporting	-	N/A	-	
callCompletion	-	N/A	-	
istAlerting	-	N/A	-	
service Termination	-	N/A	-	
locationSvcGateway	N/A	N/A	MAPv3	
mm-EventReporting	MAPv3	N/A	MAPv3	
authenticationFailureReport	-	-	-	AC Name not supported
imsiRetrieval	-	N/A	-	AC Name not supported
gprsNotifyContext	N/A	-	-	
gprsLocationInfoRetrieval	N/A	-	-	
faillureReport	N/A	-	-	
secureTransportHandling	-	-	-	

History of changes

NETWORK ELEMENTS INFORMATION

TADIG code: AUSTA

Section ID: 13 (Optional)

Effective date of change: 2021-05-18

Node type	Node ID	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	SW / HW version	UTC offset
GGSN	NHL6 (GGSN/PGW)		149.135.153.0/28		Ericsson	2012A	+10:00
GGSN	NHL7 (GGSN/PGW)		149.135.153.129/28		Ericsson	2012A	+10:00
GGSN	NNL6 (GGSN/PGW)		149.135.153.64/28		Ericsson	2012A	+10:00
GGSN	NNL7 (GGSN/PGW)		144.135.12.48/28		Ericsson	2012A	+10:00
GGSN	QCL6 (GGSN/PGW)		149.135.152.0/28		Ericsson	2012A	+10:00
GGSN	QWL6 (GGSN/PGW)		149.135.152.64/28		Ericsson	2012A	+10:00
GGSN	SFL8 (GGSN/PGW)		149.135.155.0/28		Ericsson	2012A	+10:00
GGSN	SWL9 (GGSN/PGW)		149.135.155.64/28		Ericsson	2012A	+10:00
GGSN	VWL3 (GGSN/PGW)		149.135.154.128/28		Ericsson	2012A	+10:00
GGSN	VWL6 (GGSN/PGW)		149.135.154.64/28		Ericsson	2012A	+10:00
GGSN	VXL3 (GGSN/PGW)		149.135.133.224/28		Ericsson	2012A	+10:00
GGSN	VXL6 (GGSN/PGW)		149.135.154.0/28		Ericsson	2012A	+10:00
GGSN	WPV9 (GGSN/PGW)		149.135.156.0/28		Ericsson	2012A	+10:00
GGSN	WWL8 (GGSN/PGW)		149.135.156.64/28		Ericsson	2012A	+10:00
HLR	ZVH8	61 418070016			Ericsson		+10:00
HLR	ZVH8 (Common)	61 418070036			Ericsson		+10:00
HLR	SIGK	61 418070120					+10:00
HLR	PR3A	61 418070127					+10:00
HLR	PFSY	61 418070192			Ericsson		+10:00
HLR	NHM1	61 418070254					+00:00
HLR	Jasper NPHU	61 418700066			Ericsson		+10:00
HLR	Jasper NPHU	61 418700076			Ericsson		+10:00
HLR	Jasper NPHU	61 418700086			Ericsson		+10:00
HLR	HLRF	61 418702150			Ericsson		+10:00
HLR	HLRE	61 418702170			Ericsson		+10:00
HLR	PR7A	61 418703070					+10:00
HLR	PR6A	61 418703080					+10:00
HLR	NPHV	61 418703116			Ericsson		+10:00
HLR	PR3A	61 418703121					+10:00
HLR	NPHU	61 418703126			Ericsson		+10:00
HLR	HLRF	61 418703150			Ericsson		+10:00
HLR	HLRE	61 418703170			Ericsson		+10:00
HLR	NQHU	61 418703189			Ericsson		+10:00
HLR	PR3A	61 418703190					+10:00
HLR	KNHA	61 418703202			Ericsson	R14.1	+10:00
HLR	NHH6	61 418703205			Ericsson	R14.1	+10:00
HLR	NNH1	61 418703228			Ericsson	R14.1	+10:00
HLR	NNH1	61 418703238			Ericsson	R14.1	+10:00
HLR	NNH6	61 418703273			Ericsson	R14.1	+10:00
HLR	VWHX	61 418703300			Ericsson	R14.1	+10:00
HLR	VWH6	61 418703310			Ericsson	R14.1	+10:00
HLR	HLEB	61 418703311			Ericsson	R14.1	+10:00
HLR	DCP HLR	61 418703315			Ericsson		+10:00
HLR	VWH7	61 418703320			Ericsson	R14.1	+10:00
HLR	DCP HLR	61 418703325			Ericsson		+10:00
HLR	HLWA	61 418703330			Ericsson	R14.1	+10:00
HLR	VXH6	61 418703340			Ericsson	R14.1	+10:00
HLR	WMSG	61 418703341			Ericsson	R14.1	+10:00
HLR	Jasper HLR	61 418703362					+10:00
HLR	Jasper HLR	61 418703372					+10:00
HLR	Jasper HLR	61 418703382					+10:00
HLR	DCP HLR	61 418703408			Ericsson		+10:00
HLR	DCP HLR	61 418703418			Ericsson		+10:00
HLR	DCP HLR	61 418703428			Ericsson		+10:00
HLR	QCH1	61 418703752			Ericsson	R14.1	+10:00
HLR	QWH1	61 418703762			Ericsson	R14.1	+10:00
HLR	CXMS	61 418703902			Ericsson	R14.1	+08:00
HLR	PDHS	61 418703930			Ericsson	R14.1	+08:00
HLR	NPHV	61 418705116			Ericsson		+10:00
HLR	NPHU	61 418705126			Ericsson		+10:00
HLR	Jasper (Virtual)	61 418706251					+10:00

Node type	Node ID	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	SW / HW version	UTC offset
HLR	Jasper HLR FE 1	61 418706261					+10:00
HLR	Jasper HLR FE 2	61 418706271					+10:00
HSS	NHH7	61 418703256			Ericsson	11B	+10:00
HSS	NHH4	61 418703289			Ericsson	11B	+10:00
HSS	NNH7	61 418703293			Ericsson	11B	+10:00
HSS	VWH4	61 418703302			Ericsson	11B	+10:00
HSS	VXH7	61 418703350			Ericsson	11B	+10:00
MSC	PXIV	61 418702162			Ericsson		+10:00
MSC	PQIV	61 418702172			Ericsson		+10:00
MSC/VLR	NNIV	61 418702211			Ericsson	R14.1	+10:00
MSC/VLR	NHIV	61 418702220			Ericsson	R14.1	+10:00
MSC/VLR	VXIV	61 418702301			Ericsson	R14.1	+10:00
MSC/VLR	VXS2	61 418702317			Ericsson	R12A	+10:00
MSC/VLR	VWIV	61 418702321			Ericsson	R14.1	+10:00
MSC/VLR	VWSV	61 418702371			Ericsson	R14.1	+10:00
MSC/VLR	KSMS FSG	61 418702721					+10:00
MSC/VLR	MMS SRI Ack	61 418702771					+10:00
MSC/VLR	CXMS	61 418702902			Ericsson	R12.1	+08:00
SCP	PVO Common	61 418070149					+10:00
SCP	PVO1	61 418070159					+10:00
SCP	PVO2	61 418070169					+10:00
SCP	ZPF1	61 418070204			Ericsson		+10:00
SCP	ZPF3	61 418070214			Ericsson		+10:00
SCP	HVIP	61 418070216					+10:00
SCP	ZPFV	61 418070224			Ericsson		+10:00
SCP	WVIT Common	61 418070316			Unico		+10:00
SCP	WVIP	61 418070326					+10:00
SGSN	PARU	61 418702120			Ericsson		+10:00
SGSN	PARY	61 418702140			Ericsson		+10:00
SGSN	NPE9	61 418702181			Ericsson		+10:00
SGSN	NHE7 (SGSN/MME)	61 418702230	149.135.153.192/27		Ericsson	1.28 / Mk8	+10:00
SGSN	NNE7 (SGSN/MME)	61 418702251	149.135.153.224/27		Ericsson	1.28 / Mk8	+10:00
SGSN	NHE8 (SGSN/MME)	61 418702263	149.135.131.32/27		Ericsson	1.28 / Mk10	+10:00
SGSN	VXE7 (SGSN/MME)	61 418702323	149.135.154.224/27		Ericsson	1.28 / Mk8	+10:00
SGSN	VWE9 (SGSN/MME)	61 418702343	149.135.133.32/27		Ericsson	1.28 / Mk8	+10:00
SGSN	VWE8 (SGSN/MME)	61 418702353	149.135.133.0/27		Ericsson	1.28 / Mk10	+10:00
SGSN	VWE7 (SGSN/MME)	61 418702363	149.135.154.192/27		Ericsson	1.28 / Mk10	+10:00
SGSN	Virtual		149.135.132.0/24		Ericsson	1.28 / Mk10	+10:00
SMSC	XE4Z	61 418706001					+10:00
SMSC	XEJZ (MT)	61 418706011					+10:00
SMSC	XE3Z	61 418706021					+10:00
SMSC	XDJZ	61 418706029					+10:00
SMSC	XD5Z	61 418706033					+10:00
SMSC	XEJZ	61 418706039					+10:00
SMSC	XE5Z	61 418706043					+10:00
SMSC	XD6Z	61 418706098					+10:00
SMSC	XD3Z	61 418706110					+10:00
SMSC	XD3Z	61 418706120					+10:00
SMSC	XD4Z	61 418706130					+10:00
SMSC	XDJZ (MTG)	61 418706140					+10:00
SMSC	JSM1	61 418706221					+10:00
SMSC	JSM2	61 418706231					+10:00
SMSC	JSM3	61 418706241					+10:00
SMSC	JSP1	61 418706312					+10:00
SMSC	JSP2	61 418706322					+10:00
SMSC	JSP3	61 418706332					+10:00
SMSC	JSP4	61 418706342					+10:00
SMSC	DPC SMSC	61 418706345					+10:00
SMSC	JSP5	61 418706352					+10:00
SMSC	DPC SMSC	61 418706355					+10:00
SMSC	DPC SMSC	61 418706365					+10:00
SMSC	DPC SMSC	61 418706375					+10:00
SMSC	NH4Z	61 418706409					+10:00
SMSC	NHJZ	61 418706419					+00:00
SMSC	NH3Z	61 418706429					+10:00

Node type	Node ID	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	SW / HW version	UTC offset
SMSC	DPC SMSC	61 418706438					+10:00
SMSC	DPC SMSC	61 418706448					+10:00
SMSC	DPC SMSC	61 418706458					+10:00
SMSC	DPC SMSC	61 418706468					+10:00
SMSC	DPC SMSC	61 418706478					+10:00
SMSC	NH5Z	61 418706489					+10:00
SMSC	NH6Z	61 418706497					+00:00
SMSC	Various	61 418706700					+10:00
SMSC	HNR1	61 418706710					+10:00
SMSC	QW4Z	61 418706758					+10:00
SMSC	QWJZ	61 418706768					+10:00
SMSC	QW3Z	61 418706778					+10:00
SMSC	QW6Z	61 418706782					+10:00
SMSC	QW5Z	61 418706798					+10:00

History of changes

Date	Description
2021-05-18	Further additions to the network elements
2021-05-12	Removed exited nodes & added new nodes
2021-05-12	Removing duplicate node
2021-04-12	Two new SMSC GTs (61418706497 & 61418706782)
2020-05-11	Adding new virtual SGSN/MME with address range 149.135.132.0/24
2019-08-08	Adding/Removing HLR & SMSC GTs
2019-08-02	Updated SGSN NE GT versions
2018-12-06	Update to prepaid SCP vendor
2018-03-20	Add two new SMSC addresses 61418706419 and 61418706768
2017-11-10	Updated SGSN-MME GT and IP Addresses
2017-11-10	GGSN changes
2017-11-10	MSC/VLR GT updated
2016-09-08	Added Kent WME HSS FE 1 & FE2
2015-09-07	Updated SGSNs (from Mark VI+ [Decommission] to Mark 10), effective immediately.
2015-03-30	New Network Node SGSN/MME added
2015-01-15	SCP GT info updated.
2015-01-15	New SCP GT added.
2014-10-28	SMSC GT Removed
2013-10-14	Added CXMS HLR

USSD Information

TADIG code: AUSTA
Section ID: 14 (Optional)
Effective date of change: 2019-05-14

USSD capability available	Yes
Supported phase	Phase 2

History of changes

CAMEL INFO

TADIG code: AUSTA

Section ID: 15 (Conditional)

Effective date of change: 2019-05-14

gsmSSF/MSC

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

CAMEL Functionality Information

Service(s) Name	SK	CAP Version	SCP GT addresses
gsmSCP: Prepaid (SSN=146, OCSI & TCSI)	999	CAPv3	61418070344 61418070306
gsmSCP: Postpaid (SSN=146, OCSI)	111	CAPv3	61418070306
gsmSCP: Postpaid (SSN=146, TCSI)	112	CAPv3	61418070306
gsmSCP: Postpaid (SSN=146, MCSI)	107	CAPv3	61418070306

GPRS SSF SGSN

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

CAPv4 Partial Implementations

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

History of changes

Date	Description
2012-08-02	Updates to Partial implementations supported in CAP version 4

Packet Data Services Information

TADIG code: AUSTA

Section ID: 16 (Conditional)

Effective date of change: 2019-05-14

List of APN Operator Identifiers

APN Operator Identifier	Description	Example
mnc001.mcc505.gprs	2G/3G (AUSTA)	
mnc001.mcc505.3gppnetwork.org	LTE (AUSTA)	

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			
telstra.internet	(blank)	(blank)	H-APN	139.130.4.4	203.50.2.71

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			
telstra.wap	(blank)	(blank)	H-APN	10.1.1.150	Homepage http://wap.telstra.com/wap	9201	
telstra.wap	(blank)	(blank)	H-APN	10.1.1.181	Homepage http://wap.telstra.com/wap		80

APN MMS List

APN	APN Credential		WAP Gateway IP address for MMS	Messaging Server URL
	Username	Password		
telstra.mms	(blank)	(blank)	10.1.1.155	http://mmsc.telstra.com:8002
telstra.mms	(blank)	(blank)	10.1.1.180	http://mmsc.telstra.com:8002

IPv6 Connectivity Information

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

List of 2G/3G QoS profiles

Profile name:	UTRAN Background QoS
Traffic class:	Background
ARP:	2
Evolved ARP support:	Yes
Evolved ARP priority level:	8
Evolved APR preemption vulnerability list:	
Evolved APR preemption capability list:	
Maximum bit rate uplink:	2048
Maximum bit rate downlink:	2048
Delivery order:	No
Maximum SDU size:	1500
SDU error ratio:	1*10^-4
Residual BER:	1*10^-5
Delivery of erroneous SDU:	No
Guaranteed bit rate uplink:	0
Guaranteed bit rate downlink:	0
Traffic handling priority:	3

GTP Version

SGSN	GTPv1
GGSN	GTPv1

List of Data Service supported

2G Data Services	Multislot Class Capability
-	-

3G Data Services	UE 3G Category
HSDPA	

HSUPA	
3GPP	

Multiple PDP Context Support	
Number of Primary PDP Context	2

History of changes

Date	Description
2018-12-06	Changes to achieve conformance with RAEX schema
2015-03-06	Added APN Operator Identifier for LTE.

IP - Roaming and IP - Interworking Information

TADIG code: AUSTA

Section ID: 17 (Conditional)

Effective date of change: 2020-12-10

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range
	144.135.12.0/24
	144.135.13.0/24
	144.135.14.0/24
	144.135.15.0/24
	149.135.131.0/24
	149.135.133.0/24
	149.135.134.0/24
	149.135.152.0/24
	149.135.153.0/24
	149.135.154.0/24
	149.135.155.0/24
	149.135.156.0/24
	149.135.15.0/24
	149.135.135.0/24
	149.135.157.0/24
	149.135.128.0/24
	134.159.22.216/32
	134.159.22.217/32

List of Autonomous System Number (ASN):	ASN
	1221
	65529

List of Autonomous System Number (ASN4B):	ASN4B
-------------------------------------------	-------

List of PMN authoritative DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
144.135.12.12		Primary
144.135.13.212		Secondary

List of PMN local caching DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
144.135.12.16		for subscriber roaming on Telstra
144.135.12.17		for subscriber roaming on Telstra
144.135.12.18		for subscriber roaming on Telstra
144.135.12.19		for subscriber roaming on Telstra
144.135.12.20		for subscriber roaming on Telstra
144.135.12.21		for subscriber roaming on Telstra
144.135.12.22		for subscriber roaming on Telstra
144.135.12.23		for subscriber roaming on Telstra
144.135.12.24		for subscriber roaming on Telstra
144.135.12.25		for subscriber roaming on Telstra
144.135.12.26		for subscriber roaming on Telstra
144.135.12.27		for subscriber roaming on Telstra
144.135.12.28		for subscriber roaming on Telstra
144.135.12.29		for subscriber roaming on Telstra
144.135.12.30		for subscriber roaming on Telstra
144.135.12.31		for subscriber roaming on Telstra
144.135.13.240		for subscriber roaming on Telstra
144.135.13.241		for subscriber roaming on Telstra
144.135.13.242		for subscriber roaming on Telstra
144.135.13.243		for subscriber roaming on Telstra
144.135.13.244		for subscriber roaming on Telstra
144.135.13.245		for subscriber roaming on Telstra
144.135.13.246		for subscriber roaming on Telstra
144.135.13.247		for subscriber roaming on Telstra
144.135.13.248		for subscriber roaming on Telstra
144.135.13.249		for subscriber roaming on Telstra
144.135.13.250		for subscriber roaming on Telstra
144.135.13.251		for subscriber roaming on Telstra

144.135.13.252		for subscriber roaming on Telstra
144.135.13.253		for subscriber roaming on Telstra
144.135.13.254		for subscriber roaming on Telstra
144.135.13.255		for subscriber roaming on Telstra

List of GRX Providers	GRX Provider
	Syniverse (22870) Aicent (19440) Telstra Global (Reach) (4637)

History of changes

Date	Description
2020-12-10	Added subnet to 134.159.22.216/32 & 134.159.22.217/32 for clarity and ASN 65529 (private)
2020-11-27	Added IP backbone addresses 134.159.22.216 & 134.159.22.217
2020-06-05	Added new IP backbone range 149.135.128.0/24
2020-01-22	Added 149.135.15.0/24, 149.135.135.0/24, 149.135.157.0/24
2018-07-25	Removed IP range 149.135.130.0/24
2017-11-17	Expanded DNS IP ranges
2017-11-06	6/11/2017 Add IP PMN backbone range 149.135.130.0/24
2016-09-08	Please note that Telstra may not advertise all IP address ranges used by PMN for connection to inter - PMN IP backbone
2015-03-06	Removed Inter PLMN IP Address Range 149.135.132.0/24

LTE Roaming Information

TADIG code: AUSTA

Section ID: 20 (Optional)

Effective date of change: 2021-04-16

IPX Provider Name	IPX DA Realm Used	Diameter Architecture
Telstra Global		

Primary IP address of DA	Secondary IP address of DA
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Roaming Interconnection

EPC Realms For Roaming
epc.mnc001.mcc505.3gppnetwork.org

FQDN Diameter Edge Agent

FQDN	Primary IP Address DEA FQDN	Secondary IP Address DEA FQDN
NND1-S6a-DRA.epc.mnc001.mcc505.3gppnetwork.org	0.0.0.0	

S6a Supported without IWF	S6a MAP IWF supported to HSS	S6a MAP IWF supported to MME
false	false	false

S6d used for legacy SGSN	S9 used for PCC
false	false

SMS ITW

SMS delivery over IP	SMS delivery over SGs
false	true

Voice ITW

CSFB

Roaming CS Fallback

Not Supported

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

List of LTE QOS profiles

Profile name:	IMS Signaling
QCI Value List:	5
QOS ARP List:	1
ARP Preemption Vulnerability List:	0
ARP Preemption Capability List:	1
Profile name:	IMS Voice
QCI Value List:	1
QOS ARP List:	12
ARP Preemption Vulnerability List:	0
ARP Preemption Capability List:	1
Profile name:	IMS Video
QCI Value List:	2
QOS ARP List:	12
ARP Preemption Vulnerability List:	1
ARP Preemption Capability List:	1

IPv6 Connectivity Information

	IPv6 PDP Supported	IPv4v6 PDP Supported
MME Support	Yes	No
SGW Support	Yes	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
2021-04-16	Correcting the IMS Signalling ARP value for VoLTE roaming
2020-11-27	Added VoLTE QoS Profile for AUSTA roamers
2019-05-14	Updated for RAEX compliance
2017-11-06	Added IPX information
2017-11-06	LTE QOS information
2015-09-15	removed duplicated data.
2015-09-15	Diameter DEA Information modified - DEA IP addresses are available upon request.
2015-09-14	Added extra information - Diameter FQDN + EPC Realm + LTE QoS info.
2015-09-07	removed duplicated data.
2013-10-14	Added indication of LTE QCI value and LTE Qos Profile for RAEX Validation
2013-01-25	Added RILTE Information

M2M Roaming Information

TADIG code: AUSTA

Section ID: 23 (Conditional)

Effective date of change: 2021-05-12

<i>List of Sub Range IMSI</i>	Subrange IMSI	Description	Example
	50501611	Telstra IoT IMSI Range	
	5050162	Telstra IoT IMSI Range	

<i>APN M2M List</i>	APN	Username	Password	ISP DNS Primary IP Address	ISP DNS Secondary IP Address
	telstra.m2m			144.135.12.12	144.135.13.212

History of changes

Date	Description
2021-05-12	Populated Telstra M2M outbound IMSI ranges

VoLTE Roaming Information Section

TADIG code: AUSTA

Section ID: 26 (Conditional)

Effective date of change: 2020-11-27

VoLTE roaming architectures		
Architecture	VPMN	HPMN
LBO HR	Unsupported	Unsupported
LBO VR	Unsupported	Unsupported
S8HR	Supported	Supported

Mobility and voice continuity		
Technology	VPMN	HPMN
Single Radio Voice Call Continuity	Not supported	Not supported

S8HR roaming constraints	
VPLMN technology Strategy for EC	IMS
Lawful Interception	Yes
EPS QoS to be enforced	IMS Signaling

Local emergency numbers in use at the VPMN	
Number	Service
000	Emergency Services

History of changes

Date	Description
2020-11-27	Added VoLTE roaming support

LPWA Roaming Information Section

TADIG code: AUSTA

Section ID: 27 (Conditional)

Effective date of change: 2020-01-17

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

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

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

History of changes

Date	Description
2020-01-17	Updated supported LTE-M and NB-IOT services

CONTACT INFORMATION

TADIG code: AUSTA

Section ID: 21 (Optional, Repeating)

Effective date of change: 2020-01-23

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

Location	Australia		
Office Time Zone in UTC	+10:00		
Office Hours	Week Day (s)	Start Time	End Time
	Mon Tue Wed Thu Fri	08:00:00	19:00:00

Main Contact for Troubleshooting (Office Hours)

Team Name	Tel.	Mobile	Fax	Email
Opening hours: 8:00 – 19:00 (Monday to Friday)	+61385424243			IR@team.telstra.com

Escalation Contact for Troubleshooting

Person Name	Tel.	Mobile	Fax	Email
Aolly Li				IRTechnicalCoordinator@team.telstra.com

24 x 7 Troubleshooting (contact out of Office Hours)

Team Name	Tel.	Mobile	Fax	Email
VoiceNOC		+61282890301		VoiceNOC@team.telstra.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
Wajim Hussain	+61282890020		
JobTitle	Email		
	Wajim.Hussain@team.telstra.com		
Person Name	Tel.	Mobile	Fax
Kandiah Selvakkumar	+61282890163		
JobTitle	Email		
	Kandiah.Selvakkumar@team.telstra.com		

Roaming Coordinator

Person Name	Tel.	Mobile	Fax
Aolly Li			
JobTitle	Email		
	IRTechnicalCoordinator@team.telstra.com		

IREG Tests

Person Name	Tel.	Mobile	Fax
IREG test team			
JobTitle	Email		
New Testing Relationships	IRTesting@team.telstra.com		

TADIG Tests

Person Name	Tel.	Mobile	Fax
IREG Team			
JobTitle	Email		
	ireg@team.telstra.com		
Person Name	Tel.	Mobile	Fax
TADIG team			
JobTitle	Email		
	Telstra_TROAM@infosys.com		

Other contact(s)

Person Name	Tel.	Mobile	Fax
Richard Eisner			
JobTitle	Email		
IR Commercial Lead	iRoaming@team.telstra.com		

IR21 Distribution Email Address

Email
ireg@team.telstra.com
iRoaming@team.telstra.com

History of changes

Date	Description
2020-01-23	Modified contacts
2019-07-15	Updated SCCP contact
2019-05-14	Contact Information Updates
2018-07-25	Contact updated
2018-06-22	Contact information changes

SECTIONS NOT IN USE

TADIG Code	Section ID	Section Name
AUSTA	6	Domestic SCCP Gateway
AUSTA	11	MAP Optimal Routing Section
AUSTA	12	MAP Inter Operator SMS Enhancement
AUSTA	18	MMS Interworking Information
AUSTA	19	WLAN Information
AUSTA	22	Hosted Networks
AUSTA	24	MVNO Information