GSMA Roaming Database
IR.21 Data

RAEX IR.21 Information

Creation date:	2020-09-16
Creation time:	07:13:42+02:00
File type:	IR.21
Sender TADIG:	AUSOP
Publish Comment:	Add new 2 New HLR (61411990323 & 61411990333) & 1 New SCP (61411990324)
TADIG-GEN schema version:	2.4
RAEX-IR.21 schema version:	13.1

ORGANISATION INFORMATION

Section ID: 1 (Mandatory)

Organisation name:	SingTel Optus Pty Limited
Country initials:	AUS

History of changes

TADIG Code	Section ID	Section	Date	Description
AUSOP	13	Network Elements Information	2020-09-16	Add new 2 New HLR (61411990323 & 61411990333) & 1 New SCP (61411990324)
AUSOP	13	Network Elements Information	2020-09-16	Rename HLR/SCP's
AUSOP	4	Routing Information	2020-04-21	Add new MSISDN Range 61483 900000 - 999999
AUSOP	4	Routing Information	2020-03-09	Removal of MSRN Ranges 61 411 900000 - 99999 & 61 478 440000 - 9999
AUSOP	4	Routing Information	2020-03-09	Update Network Node GT range to 61 411 990000 - 9999
AUSOP	16	Packet Data Service Information	2020-01-31	Add APN operator identifier
AUSOP	13	Network Elements Information	2019-11-29	Add IP-SMGW Nodes
AUSOP	13	Network Elements Information	2019-11-29	Sort Network Nodes
AUSOP	16	Packet Data Service Information	2019-11-29	Removal of legacy DNS IP Addresses in APNs
AUSOP	17	IP Roaming/Networking Information	2019-11-29	Removal of legacy DNS IP Addresses & Names
AUSOP	17	IP Roaming/Networking Information	2019-11-29	Update Backbone IP Address Ranges
AUSOP	4	Routing Information	2019-11-28	Corrected missing number ranges in number portability section
AUSOP	13	Network Elements Information	2019-11-28	Remove old SMSC's, Remove old MSC's, Remove old HLR's, Add new GT for SMSC & IPSMGW for Mascot & East Burwood & Add new GTs for Ericsson vHLR
AUSOP	4	Routing Information	2019-05-01	Correction to 61 482 Number range
AUSOP	17	IP Roaming/Networking Information	2018-11-27	Correction & Additions to DNS IP Addresses & Names
AUSOP	17	IP Roaming/Networking Information	2018-11-27	Correction & Additions to DNS IP Addresses & Names
AUSOP	17	IP Roaming/Networking Information	2018-11-14	Addition of new authoritative DNS details (198.142.211.252 & 198.142.211.254)
AUSOP	17	IP Roaming/Networking Information	2018-11-14	Addition of new Local DNS details
AUSOP	13	Network Elements Information	2018-10-23	New SCP GT
AUSOP	13	Network Elements Information	2018-10-23	Correct UTCs
AUSOP	13	Network Elements Information	2018-10-22	Added new GT for SCP - 61411990304
AUSOP	13	Network Elements Information	2018-10-02	Remove Old SGSNs
AUSOP	13	Network Elements Information	2018-10-02	Rename SGSNs
AUSOP	13	Network Elements Information	2018-10-02	Update SGSNs
AUSOP	17	IP Roaming/Networking Information	2018-10-02	Add IP Addresses
AUSOP	17	IP Roaming/Networking Information	2018-10-02	Update GRX Providers
AUSOP	13	Network Elements Information	2018-09-14	Updated IPv4 address/Address Range
AUSOP	20	LTE Roaming Information	2018-09-14	Updated IPX
AUSOP	16	Packet Data Service Information	2018-08-28	Selected H-APN Type for Optus APNs
AUSOP	20	LTE Roaming Information	2018-08-28	inserted MCC & MNC for EPS realms (missing after schema version)
AUSOP	4	Routing Information	2018-08-27	Corrected MSISDN Starting Range from 0 to 000000
AUSOP	21	Contact Information	2018-05-24	New email address for Faults team
AUSOP	17	IP Roaming/Networking Information	2018-02-15	Added GRX provider and ASN BICS 6774
AUSOP	13	Network Elements Information	2017-09-13	New SCP GTs for Ericsson - implement by Nov 2017
AUSOP	13	Network Elements Information	2017-09-13	New GTs for Ericsson IN
AUSOP	16	Packet Data Service Information	2017-06-16	v1
AUSOP	16	Packet Data Service Information	2017-06-16	Updated IPV6 Connectivity Info
AUSOP	20	LTE Roaming Information	2017-06-16	Updated ARP value
AUSOP	20	LTE Roaming Information	2017-06-16	v2
AUSOP	16	Packet Data Service Information	2017-06-09	Update QoS
AUSOP	20	LTE Roaming Information	2017-06-09	Updated EPC QoS
AUSOP	21	Contact Information	2017-06-09	Updated contacts

TADIG Code	Section ID	Section	Date	Description
AUSOP	16	Packet Data Service Information	2017-06-08	QoS Profiles updated
AUSOP	17	IP Roaming/Networking Information	2016-09-20	Added Authoritative DNS server (same as Local caching)
AUSOP	20	LTE Roaming Information	2016-09-20	Updated Scenario 5 & 6 for 2G/3G LTE agreement as not supported
AUSOP	13	Network Elements Information	2016-06-06	New VLR GTS for Blacktown,Campbellfield, Mascot & Sunshine
AUSOP	13	Network Elements Information	2016-04-05	New SCP - Amdocs
AUSOP	13	Network Elements Information	2016-01-25	New VLR GT addresses
AUSOP	13	Network Elements Information	2015-12-15	New HLR RSC nodes
AUSOP	4	Routing Information	2015-11-24	New Network Nodes GT Number Range & MSRN Number Range Added (61481630000 to 61481669999)
AUSOP	13	Network Elements Information	2015-11-24	New VLRs
AUSOP	13	Network Elements Information	2015-11-24	New MSCs
AUSOP	13	Network Elements Information	2015-11-13	SCP addition
AUSOP	13	Network Elements Information	2015-11-13	New SCP
AUSOP	13	Network Elements Information	2015-10-15	Corrected New HLR GT - FE Pool 61411999020
AUSOP	13	Network Elements Information	2015-10-15	New HLR GT - FEPool 61411999020
AUSOP	16	Packet Data Service Information	2015-05-22	Updated Number of Primary PDP Context
AUSOP	13	Network Elements Information	2015-05-18	Removed 2 MMSC Network Nodes
AUSOP	21	Contact Information	2015-05-18	Updated IR21 distribution address to pdintroamgroup@optus.com.au.
AUSOP	13	Network Elements Information	2015-05-07	Corrected UTC Time Offset for SMSC node ID CIPSMGW
AUSOP	13	Network Elements Information	2015-05-07	Corrected new SMSC GT Range
AUSOP	13	Network Elements Information	2015-05-07	Added new SMSC Network Nodes
AUSOP	16	Packet Data Service Information	2015-05-01	Addition of test APNs
AUSOP	17	IP Roaming/Networking Information	2015-05-01	Added GRX provider and ASN Syniverse 22870
AUSOP	20	LTE Roaming Information	2015-05-01	Updated FQDN
AUSOP	13	Network Elements Information	2015-04-29	Added new SMSC and SGSN network nodes
AUSOP	15	CAMEL Information	2015-04-29	Clarification that we only allow CAP2 for our outbound roamers.
AUSOP	17	IP Roaming/Networking Information	2015-04-29	Added new ASN
AUSOP	17	IP Roaming/Networking Information	2015-04-29	Added new IP address range
AUSOP	20	LTE Roaming Information	2015-04-29	Updated LTE settings: IPv4v6 not yet supported (but planned), added new FQDN information and ARPPreemption information.
AUSOP	13	Network Elements Information	2015-01-16	Addition of new HLR node
AUSOP	20	LTE Roaming Information	2015-01-16	New S6a hostname added to LTE section
AUSOP	21	Contact Information	2015-01-16	Updated 24 x 7 Troubleshooting contact details
AUSOP	13	Network Elements Information	2014-11-07	Amended Dual Access to N/A for Network Nodes
AUSOP	13	Network Elements Information	2014-11-03	Amended Dual Access to N/A for Networks Nodes
AUSOP	13	Network Elements Information	2014-10-31	Addition of two new HLRs (will come into service during 2015)
AUSOP	16	Packet Data Service Information	2014-10-31	Addition of Web APN for testing and troubleshooting
AUSOP	20	LTE Roaming Information	2014-10-31	Addition of S6a hostnames to LTE section
AUSOP	21	Contact Information	2014-10-29	Updated IR21 distribution email address
AUSOP	21	Contact Information	2014-10-29	Updated contacts
AUSOP	21	Contact Information	2014-10-29	Updated contacts
AUSOP	21	Contact Information	2014-10-27	Contacts updated
AUSOP	13	Network Elements Information	2014-09-18	Edited SGSN names
AUSOP	13	Network Elements Information	2014-09-18	Added new SGSN
AUSOP	13	Network Elements Information	2014-09-18	Added new SGSN
AUSOP	17	IP Roaming/Networking Information	2014-09-10	61.88.189.0/24 added to IP address ranges
AUSOP	20	LTE Roaming Information	2014-09-10	Update to S6a Hostnames list

TADIG Code	Section ID	Section	Date	Description
AUSOP	17	IP Roaming/Networking Information	2014-09-05	Addition of DNS names
AUSOP	18	MMS Interworking Information	2014-09-05	Change to Incoming and Outgoing MTA IP addresses
AUSOP	20	LTE Roaming Information	2014-09-05	LTE section - updated SMS delivery over SGs
AUSOP	20	LTE Roaming Information	2014-09-05	LTE ARP information updated
AUSOP	20	LTE Roaming Information	2014-09-05	LTE Roaming Information section added
AUSOP	5	International SCCP Gateway	2013-10-30	Comment deleted
AUSOP	17	IP Roaming/Networking Information	2013-10-29	Additional ASN 7474 and 4804 included
AUSOP	21	Contact Information	2013-10-28	Updated International Faults contact number
AUSOP	16	Packet Data Service Information	2013-10-02	Removed Internet APN details with IP address 202.139.124.225
AUSOP	4	Routing Information	2013-08-22	Moved newly added NDC ranges to number portability section
AUSOP	4	Routing Information	2013-08-16	Added new NDC Codes and Port Number for MMS APN
AUSOP	16	Packet Data Service Information	2013-08-14	Port 8070 added to APN WAP Item
AUSOP	13	Network Elements Information	2013-07-11	Additional network nodes added
AUSOP	13	Network Elements Information	2013-06-20	Additional nodes added to network elements
AUSOP	21	Contact Information	2013-04-26	Updated Roaming Coordinator contact
AUSOP	13	Network Elements Information	2013-04-22	Removed nodes Mascot and Sunshine SGSN-2G
AUSOP	13	Network Elements Information	2013-01-31	Additional GT's of EBurwd1 and RegPk1 defined under Network Elements
AUSOP	21	Contact Information	2013-01-08	Updated Roaming Coordinator details
AUSOP	21	Contact Information	2013-01-08	Updated International Roaming Coordinator details
AUSOP	5	International SCCP Gateway	2012-08-27	Removal of STP SCCP Gateways
AUSOP	13	Network Elements Information	2012-08-27	Correction to MMSCs 3_0GT1 and 3_0GT2
AUSOP	13	Network Elements Information	2012-01-11	Added 15 new SMSCs
AUSOP	13	Network Elements Information	2012-01-03	Added new Combi SGSN (SG6) Global Title - Mascot2 and Rochdale2
AUSOP	13	Network Elements Information	2011-11-17	Removed 2GSGSN Global Title Rsbery +61 411 999010
AUSOP	13	Network Elements Information	2011-09-06	Added new SCP Global Title (CAMEL) - Blacktown2 & Mascot2
AUSOP	13	Network Elements Information	2011-09-06	Removed all 3GSGSN Global Title
AUSOP	13	Network Elements Information	2011-09-06	Added new SCP Global Title (CAMEL) - Blacktown2 & Mascot2, Removed all 3GSGSN Global Title
AUSOP	13	Network Elements Information	2011-07-21	Added new Combi SGSN (SG6) Global Title - Blacktown and East Burwood
AUSOP	13	Network Elements Information	2011-05-23	Added new Combi SGSN (SG6) Global Title - Regency Park
AUSOP	18	MMS Interworking Information	2011-05-23	Changed MMS Read Report to No. Added MMS IW Hub Provider - Aicent

NETWORK

TADIG code: AUSOP
Section ID: 2 (Mandatory, Repeating)

TADIG code:	AUSOP
Network type:	Terrestrial
Technology:	**Frequency list:**
2G-GSM frequencies:	Unsupported
3G-UTRA/FDD frequencies:	8 - 900 MHz, 1 - IMT 2.1 GHz
3G-UTRA/TDD frequencies:	Unsupported
4G-E-UTRAN frequencies:	28 - 700 MHz APAC, 8 - 900 MHz, 3 - DCS 1800, 1 - IMT 2.1 GHz, 40 - TDD 2.3 GHz, 7 - 2.6 GHz
4G-E-UTRAN-MIoT-LTE-M frequencies:	Unsupported
4G-E-UTRAN-MIoT-NB-IoT frequencies:	Unsupported
MIoT-NB-IoT deployment modes:	Unsupported
Presentation of country initials and MNN:	Optus AU
Abbreviated MNN:	Optus

NETWORK INFORMATION

TADIG code: AUSOP
Section ID: 3 (Mandatory)

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

ROUTING INFORMATION

TADIG code: AUSOP
Section ID: 4 (Mandatory)
Effective date of change: 2020-04-21

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	401	000000	999999				
	61	402	000000	999999				
	61	403	000000	999999				
	61	411	000000	999999				
	61	412	000000	999999				
	61	413	000000	999999				
	61	421	000000	999999				
	61	422	000000	999999				
	61	423	000000	999999				
	61	431	000000	999999				
	61	432	000000	999999				
	61	434	000000	999999				
	61	435	000000	999999				
	61	466	000000	999999				
	61	468	300000	999999				
	61	478	000000	999999				
	61	479	000000	199999				
	61	481	000000	999999				
	61	482	000000	399999				
	61	483	900000	999999				
	61	1451	50000	59999				
	61	1451	80000	89999				
	61	1452	50000	59999				
	61	1452	80000	89999				
	61	1453	50000	59999				
	61	1453	80000	89999				
Network Nodes Global Title Number Range(s)								
	61	411	990000	999999				
	61	481	630000	669999				
MSRN Number Range(s)								
	61	481	630000	669999				

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	505	02

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	61	411

Does Number Portability apply ?	Yes

Is 15 Digit MSISDN Supported ?	No

USIM SIM Header	896102

E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	61	436	000000	000000
	61	400	000000	999999
	61	404	000000	999999
	61	405	000000	999999
	61	406	000000	999999
	61	407	000000	999999
	61	408	000000	999999
	61	409	000000	999999
	61	410	000000	999999
	61	414	000000	999999
	61	415	000000	999999
	61	416	000000	999999
	61	417	000000	999999
	61	418	000000	999999
	61	419	000000	999999
	61	420	200000	999999
	61	424	000000	999999
	61	425	000000	999999
	61	426	000000	999999
	61	427	000000	999999
	61	428	000000	999999
	61	429	000000	999999
	61	430	000000	999999
	61	433	000000	999999
	61	436	000000	999999
	61	437	000000	999999
	61	438	000000	999999
	61	439	000000	999999
	61	444	400000	499999
	61	447	000000	999999
	61	448	000000	999999
	61	449	000000	999999
	61	450	000000	999999
	61	451	000000	999999
	61	452	000000	999999
	61	453	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	999999
	61	470	000000	999999
	61	472	000000	999999
	61	473	000000	999999
	61	474	000000	999999
	61	475	000000	999999
	61	476	000000	999999
	61	477	000000	999999
	61	487	000000	999999
	61	488	000000	999999
	61	490	000000	999999
	61	497	000000	999999
	61	498	000000	999999
	61	499	000000	999999
	61	480	000000	999999
	61	482	400000	999999
	61	483	000000	999999
	61	484	000000	999999
	61	485	000000	999999
	61	489	000000	999999
	61	491	000000	999999
E. 164 Number Ranges due to Number Portability	61	492	000000	999999

History of changes

Date	Description
2020-04-21	Add new MSISDN Range 61483 900000 - 999999
2020-03-09	Removal of MSRN Ranges 61 411 900000 - 99999 & 61 478 440000 - 9999
2020-03-09	Update Network Node GT range to 61 411 990000 - 9999
2019-11-28	Corrected missing number ranges in number portability section
2019-05-01	Correction to 61 482 Number range
2018-08-27	Corrected MSISDN Starting Range from 0 to 000000
2015-11-24	New Network Nodes GT Number Range & MSRN Number Range Added (61481630000 to 61481669999)
2013-08-22	Moved newly added NDC ranges to number portability section
2013-08-16	Added new NDC Codes and Port Number for MMS APN

INTERNATIONAL SCCP GATEWAY

TADIG code: AUSOP
Section ID: 5 (Optional)
Effective date of change: 2013-10-30

International SCCP carrier list	
SCCP carrier name:	Optus
Connectivity information:	Primary
MNO TADIG code list:	

DPC info:	
Signature:	GWY CPC
Type:	SSCP
International DPC:	5.17.0
Comments:	5.17.0 is the alias point code used for SSTP (5.17.1) and MSTP (5.17.2). Inbound traffic from these point codes must be allowed in your network.

History of changes

Date	Description
2013-10-30	Comment deleted
2012-08-27	Removal of STP SCCP Gateways

SCCP Protocol available at PMN for connection for International SS7 Roaming
TADIG code: AUSOP
Section ID: 7 (Optional)
Effective date of change: 2011-04-14

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

History of changes

SCCP Protocol available at PMN for connection for International SS7 Roaming

SUBSCRIBER IDENTITY AUTHENTICATION

TADIG code: AUSOP
Section ID: 8 (Optional)
Effective date of change: 2011-04-14

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	1

History of changes

MOBILE APPLICATION PART (MAP)

TADIG code: AUSOP
Section ID: 10 (Optional)
Effective date of change: 2011-04-14

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	MAPv2	N/A	MAPv2	
mwdMngt	MAPv2	MAPv2	MAPv2	
shortMsgMT-Relay (called shortMsgRelay in v1)	MAPv2	MAPv2	MAPv2	
shortMsgMO-Relay (called shortMsgRelay in v1)	MAPv3	MAPv3	MAPv3	
ss-InvocationNotification	MAPv3	N/A	MAPv3	
subscriberInfoEnquiry	MAPv3	MAPv3	MAPv3	
gprsLocationUpdate	N/A	MAPv3	MAPv3	
locationCancellation	MAPv3	MAPv3	MAPv3	
msPurging	MAPv2	MAPv2	MAPv2	
reset	MAPv2	MAPv2	MAPv2	
networksUnstructuredSs	MAPv2	N/A	MAPv2	
reporting	MAPv3	N/A	MAPv3	
callCompletion	MAPv3	N/A	MAPv3	
istAlerting	-	N/A	-	
service Termination	-	N/A	-	
locationSvcGateway	N/A	N/A	MAPv3	
mm-EventReporting	MAPv3	N/A	MAPv3	
authenticationFaillureReport	MAPv3	MAPv3	MAPv3	
imsiRetrieval	MAPv2	N/A	MAPv2	
gprsNotifyContext	N/A	-	-	
gprsLocationInfoRetrieval	N/A	-	-	
faillureReport	N/A	-	-	
secureTransportHandling	-	-	-	

History of changes

NETWORK ELEMENTS INFORMATION

TADIG code: AUSOP
Section ID: 13 (Optional)
Effective date of change: 2020-09-16

Node type	Node ID	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	SW / HW version	UTC offset
EIR		61 411 990025 / 990025					+10:00
HLR	BlkFE	61 411 999021 / 999021					+10:00
HLR	CmbFE	61 411 999022 / 999022					+10:00
HLR	FEPool	61 411 999020 / 999020					+10:00
HLR	HmeFE	61 411 999010 / 999010					+10:00
HLR	MasFE	61 411 990420 / 990420					+10:00
HLR	MorFE	61 411 990422 / 990422					+10:00
HLR	OWS	61 411 990221 / 990221					+10:00
HLR	OWS1	61 411 990222 / 990222					+10:00
HLR	OWS2	61 411 990223 / 990223					+10:00
HLR	OWS3	61 411 990239 / 990239					+10:00
HLR	OWS4	61 411 990240 / 990240					+10:00
HLR	OWS5	61 411 990241 / 990241					+10:00
HLR	RSC1 old	61 411 990300 / 990300					+10:00
HLR	RSC2 old	61 411 990301 / 990301					+10:00
HLR	RW1 old	61 411 990176 / 990176					+10:00
HLR	RW2 old	61 411 990177 / 990177					+10:00
HLR	SunFE	61 411 990421 / 990421					+10:00
IP-SMGW	EBwd 33EB IPSMGW	61 411 990199 / 990199					+10:00
IP-SMGW	Mas 22RR IPSMGW	61 411 990197 / 990197					+10:00
MMSC	Hume1	61 411 990073 / 990073					+10:00
MMSC	Hume2	61 411 990074 / 990074					+10:00
MMSC	MMSC1	61 411 990022 / 990022					+10:00
MMSC	MMSC2	61 411 990023 / 990023					+10:00
MSC	Blktown	61 481 640000 / 640000					+10:00
MSC	Cbellfld	61 481 650000 / 650000					+10:0d
MSC	Mascot	61 481 630000 / 630000					+10:00
MSC	Snshine	61 481 660000 / 660000					+10:00
SCP	AmdocsDRGT1	61 411 990088 / 990088					+10:00
SCP	AmdocsDRGT2	61 411 990089 / 990089					+10:00
SCP	AmdocsProdGT1	61 411 990086 / 990086					+10:00
SCP	AmdocsProdGT2	61 411 990087 / 990087					+10:00
SCP	AmdocsVGT	61 411 990085 / 990085					+10:00
SCP	Blacktown	61 411 990273 / 990273					+10:00
SCP	Blacktown E IN	61 411 990116 / 990116			Ericsson		+10:00
SCP	Blktwn1	61 411 990107 / 990107					+10:00
SCP	Blktwn2	61 411 990131 / 990131					+10:0?
SCP	Campbellfield	61 411 990274 / 990274					+10:00
SCP	Mascot E IN	61 411 990115 / 990115			Ericsson		+10:0?
SCP	Mascot1	61 411 990108 / 990108					+10:00
SCP	Mascot2	61 411 990132 / 990132					+10:00
SCP	OWS	61 411 990227 / 990227					+10:00
SCP	OWS1	61 411 990228 / 990228					+10:00
SCP	OWS2	61 411 990229 / 990229					+10:00
SCP	OWS3	61 411 990245 / 990245					+10:00
SCP	OWS4	61 411 990246 / 990246					+10:00
SCP	OWS5	61 411 990247 / 990247					+10:00
SCP	OWStst	61 411 990287 / 990287					+10:00
SCP	OWStst	61 411 990295 / 990295					+10:00
SCP	RSC3 old	61 411 990304 / 990304					+10:00
SCP	Virtual	61 411 990275 / 990275					+10:00
SCP	Virtual E IN	61 411 990114 / 990114			Ericsson		+10:00
SCP	Vrtl	61 411 990106 / 990106					+10:00
SGSN	E_Blktwn1	61 411 990213 / 990213	210.49.125.80		Ericsson		+10:00
SGSN	E_Blktwn1	61 411 990213 / 990213	210.49.125.81		Ericsson		+10:00
SGSN	E_Blktwn2	61 411 990452 / 990452	198.142.211.3		Ericsson		+10:00
SGSN	E_Blktwn2	61 411 990452 / 990452	198.142.211.4		Ericsson		+10:00
SGSN	E_Ebwd1	61 411 990216 / 990216	210.49.125.84		Ericsson		+10:00
SGSN	E_Ebwd1	61 411 990216 / 990216	210.49.125.85		Ericsson		+10:00
SGSN	E_Mascot1	61 411 990212 / 990212	210.49.125.82		Ericsson		+10:00
SGSN	E_Mascot1	61 411 990212 / 990212	210.49.125.83		Ericsson		+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
SGSN	E_Mascot2	61 411 990451 / 990451	198.142.211.1		Ericsson		+10:00
SGSN	E_Mascot2	61 411 990451 / 990451	198.142.211.2		Ericsson		+10:00
SGSN	E_Rchdale1	61 411 990214 / 990214	210.49.125.88		Ericsson		+10:00
SGSN	E_Rchdale1	61 411 990214 / 990214	210.49.125.89		Ericsson		+10:00
SGSN	E_Sunshn1	61 411 990215 / 990215	210.49.125.86		Ericsson		+10:00
SGSN	E_Sunshn1	61 411 990215 / 990215	210.49.125.87		Ericsson		+10:00
SGSN	E_Sunshn2	61 411 990453 / 990453	198.142.211.5		Ericsson		+10:00
SGSN	E_Sunshn2	61 411 990453 / 990453	198.142.211.6		Ericsson		+10:00
SMSC	CIPSMGW	61 411 990199 / 990199					+10:00
SMSC	EBwd 33EB	61 411 990198 / 990198					+10:00
SMSC	L4	61 411 990014 / 990014					+10:00
SMSC	L5	61 411 990056 / 990056					+10:00
SMSC	L5vrtl	61 411 990058 / 990058					+10:00
SMSC	L6	61 411 990057 / 990057					+10:00
SMSC	L6vrtl	61 411 990059 / 990059					+10:00
SMSC	Mas 22RR	61 411 990196 / 990196					+10:00
SMSC	MCO10PGT	61 411 990184 / 990184					+10:00
SMSC	MCO11PGT	61 411 990185 / 990185					+10:00
SMSC	MCO12PGT	61 411 990186 / 990186					+10:00
SMSC	MCO1PGT	61 411 990161 / 990161					+10:00
SMSC	MCO2PGT	61 411 990162 / 990162					+10:00
SMSC	MCO3PGT	61 411 990163 / 990163					+10:00
SMSC	MCO4PGT	61 411 990164 / 990164					+10:00
SMSC	MCO5PGT	61 411 990165 / 990165					+10:00
SMSC	MCO6PGT	61 411 990166 / 990166					+10:00
SMSC	MCO7PGT	61 411 990181 / 990181					+10:00
SMSC	MCO8PGT	61 411 990182 / 990182					+10:00
SMSC	MCO9PGT	61 411 990183 / 990183					+10:00
SMSC	MCOCMasVGT	61 411 990167 / 990167					+10:00
SMSC	MCOCSunVGT	61 411 990187 / 990187					+10:00
SMSC	MCOCVrtlGT	61 411 990160 / 990160					+10:00
SMSC	MIPSMGW	61 411 990196 / 990196					+10:00
SMSC	OWS	61 411 990224 / 990224					+10:00
SMSC	OWS1	61 411 990225 / 990225					+10:00
SMSC	OWS2	61 411 990226 / 990226					+10:00
SMSC	OWS3	61 411 990242 / 990242					+10:00
SMSC	OWS4	61 411 990243 / 990243					+10:00
SMSC	OWS5	61 411 990244 / 990244					+10:00
SMSC	OWStst	61 411 990286 / 990286					+10:00
SMSC	OWStst	61 411 990294 / 990294					+10:00
SMSC	SMSC10	61 411 990006 / 990006					+10:00
SMSC	SMSC3	61 411 990020 / 990020					+10:00
SMSC	SMSC3A	61 411 990011 / 990011					+10:00
SMSC	SMSC4	61 411 990004 / 990004					+10:00
SMSC	SMSC5	61 411 990005 / 990005					+10:00
SMSC	SMSC9	61 411 990016 / 990016					+10:00
SMSC	Vrtl0	61 411 990000 / 990000					+10:00
SMSC	Vrtl1	61 411 990001 / 990001					+10:00
SMSC	Vrtl2	61 411 990002 / 990002					+10:00
SMSC	VrtlVrgn	61 411 990010 / 990010					+10:00
VLR	Blacktown	61 481 640095 / 640095					+10:00
VLR	Blacktown	61 481 640096 / 640096					+10:00
VLR	Blacktown	61 481 640097 / 640097					+10:00
VLR	Blacktown	61 481 640098 / 640098					+10:00
VLR	Blacktown	61 481 640099 / 640099					+10:00
VLR	Blktown	61 481 640001 / 640001					+10:00
VLR	Campbellfield	61 481 650095 / 650095					+10:00
VLR	Campbellfield	61 481 650096 / 650096					+10:00
VLR	Campbellfield	61 481 650097 / 650097					+10:00
VLR	Campbellfield	61 481 650098 / 650098					+10:00
VLR	Campbellfield	61 481 650099 / 650099					+10:00
VLR	Cbellfld	61 481 650001 / 650001					+10:00
VLR	Mascot	61 481 630001 / 630001					+10:00
VLR	Mascot	61 481 630095 / 630095					+10:00
VLR	Mascot	61 481 630096 / 630096					+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
VLR	Mascot	61 481 630097 / 630097					+10:00
VLR	Mascot	61 481 630098 / 630098					+10:00
VLR	Mascot	61 481 630099 / 630099					+10:00
VLR	Snshine	61 481 660001 / 660001					+10:00
VLR	Sunshine	61 481 660095 / 660095					+10:00
VLR	Sunshine	61 481 660096 / 660096					+10:00
VLR	Sunshine	61 481 660097 / 660097					+10:00
VLR	Sunshine	61 481 660098 / 660098					+10:00
VLR	Sunshine	61 481 660099 / 660099					+10:00
HLR	RSC3 Mas	61 411 990323 / 990323					+10:00
HLR	RSC4 EB	61 411 990333 / 990333					+10:00
SCP	RSC3 Mas	61 411 990324 / 990324					+10:00

History of changes

Date	Description
2020-09-16	Add new 2 New HLR (61411990323 & 61411990333) & 1 New SCP (61411990324)
2020-09-16	Rename HLR/SCP's
2019-11-29	Add IP-SMGW Nodes
2019-11-29	Sort Network Nodes
2019-11-28	Remove old SMSC's, Remove old MSC's, Remove old HLR's, Add new GT for SMSC & IPSMGW for Mascot & East Burwood & Add new GTs for Ericsson vHLR
2018-10-23	New SCP GT
2018-10-23	Correct UTCs
2018-10-22	Added new GT for SCP - 61411990304
2018-10-02	Remove Old SGSNs
2018-10-02	Rename SGSNs
2018-10-02	Update SGSNs
2018-09-14	Updated IPv4 address/Address Range
2017-09-13	New SCP GTs for Ericsson - implement by Nov 2017
2017-09-13	New GTs for Ericsson IN
2016-06-06	New VLR GTS for Blacktown,Campbellfield, Mascot & Sunshine
2016-04-05	New SCP - Amdocs
2016-01-25	New VLR GT addresses
2015-12-15	New HLR RSC nodes
2015-11-24	New VLRs
2015-11-24	New MSCs
2015-11-13	SCP addition
2015-11-13	New SCP
2015-10-15	Corrected New HLR GT - FE Pool 61411999020
2015-10-15	New HLR GT - FEPool 61411999020
2015-05-18	Removed 2 MMSC Network Nodes
2015-05-07	Corrected UTC Time Offset for SMSC node ID CIPSMGW
2015-05-07	Corrected new SMSC GT Range
2015-05-07	Added new SMSC Network Nodes
2015-04-29	Added new SMSC and SGSN network nodes
2015-01-16	Addition of new HLR node
2014-11-07	Amended Dual Access to N/A for Network Nodes
2014-11-03	Amended Dual Access to N/A for Networks Nodes
2014-10-31	Addition of two new HLRs (will come into service during 2015)
2014-09-18	Edited SGSN names

Date	Description
2014-09-18	Added new SGSN
2014-09-18	Added new SGSN
2013-07-11	Additional network nodes added
2013-06-20	Additional nodes added to network elements
2013-04-22	Removed nodes Mascot and Sunshine SGSN-2G
2013-01-31	Additional GT's of EBurwd1 and RegPk1 defined under Network Elements
2012-08-27	Correction to MMSCs 3_0GT1 and 3_0GT2
2012-01-11	Added 15 new SMSCs
2012-01-03	Added new Combi SGSN (SG6) Global Title - Mascot2 and Rochdale2
2011-11-17	Removed 2GSGSN Global Title Rsbery +61 411 999010
2011-09-06	Added new SCP Global Title (CAMEL) - Blacktown2 & Mascot2
2011-09-06	Removed all 3GSGSN Global Title
2011-09-06	Added new SCP Global Title (CAMEL) - Blacktown2 & Mascot2, Removed all 3GSGSN Global Title
2011-07-21	Added new Combi SGSN (SG6) Global Title - Blacktown and East Burwood
2011-05-23	Added new Combi SGSN (SG6) Global Title - Regency Park

CAMEL INFO

TADIG code: AUSOP
Section ID: 15 (Conditional)
Effective date of change: 2015-04-29

gsmSSF/MSC	
CAP Version supported (Inbound)	**CAP Version supported (Outbound)**
CAPv1 CAPv2 CAPv3	CAPv2

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
2015-04-29	Clarification that we only allow CAP2 for our outbound roamers.

Packet Data Services Information

TADIG code: AUSOP
Section ID: 16 (Conditional)
Effective date of change: 2020-01-31

List of APN Operator Identifiers		
APN Operator Identifier	**Description**	**Example**
mnc002.mcc505.gprs		
mnc002.mcc505.3gppnetwork.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**			
yesinternet	N/A	N/A	H-APN	198.142.211.254	198.142.211.252
connect	N/A	N/A	H-APN	198.142.211.254	198.142.211.252
connectme	N/A	N/A	H-APN	198.142.211.254	198.142.211.252

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**			
wap.optus.net.au	n/a	n/a	H-APN	202.139.83.152	http://networker.optus.net.au/ wap/index.wml		8070

APN MMS List				
APN Credential			**WAP Gateway IP address for MMS**	**Messaging Server URL**
APN	**Username**	**Password**		
mms	n/a	n/a	61.88.190.10	http:// mmsc.optus.com.au:8002/ mmsc

IPv6 Connectivity Information		
	IPv6 PDP Supported	**IPv4v6 PDP Supported**
SGSN Support	Yes	Yes
GGSN Support	Yes	Yes

List of 2G/3G QOS profiles	
Profile name:	All 3G inbound Roamers
Traffic class:	Interactive
ARP:	3
Evolved ARP support:	Yes
Evolved ARP priority level:	3
Evolved APR preemption vulnerability list:	0
Evolved APR preemption capability list:	0
Delivery order:	Yes
Traffic handling priority:	3

GTP Version	
SGSN	GTPv1
GGSN	GTPv1

List of Data Service supported

2G Data Services	Multislot Class Capability
GPRS	
EDGE	

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

Multiple PDP Context Support	
Number of Primary PDP Context	10

History of changes

Date	Description
2020-01-31	Add APN operator identifier
2019-11-29	Removal of legacy DNS IP Addresses in APNs
2018-08-28	Selected H-APN Type for Optus APNs
2017-06-16	v1
2017-06-16	Updated IPV6 Connectivity Info
2017-06-09	Update QoS
2017-06-08	QoS Profiles updated
2015-05-22	Updated Number of Primary PDP Context
2015-05-01	Addition of test APNs
2014-10-31	Addition of Web APN for testing and troubleshooting
2013-10-02	Removed Internet APN details with IP address 202.139.124.225
2013-08-14	Port 8070 added to APN WAP Item

IP - Roaming and IP - Interworking Information
TADIG code: AUSOP
Section ID: 17 (Conditional)
Effective date of change: 2019-11-29

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range
	202.139.123.128/26
	202.139.123.192/26
	61.88.189.64/27
	61.88.189.128/26
	61.88.189.192/26
	198.142.204.0/24
	198.142.251.64/27
	61.88.189.32/27
	61.88.225.0/24
	61.88.248.0/24
	61.88.220.0/24
	61.88.222.0/24
	61.88.189.0/24
	210.49.124.0/23
	198.142.210.0/24
	198.142.211.0/24
	198.142.210.0/23
	202.139.123.128/25
	210.49.124.0/24
	210.49.125.0/24
	61.88.189.0/25
	61.88.189.128/25

List of Autonomous System Number (ASN):	ASN
	7474
	4804

List of Autonomous System Number (ASN4B):	ASN4B

List of PMN authoritative DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
198.142.211.252		33vsvgpdns01.mnc002.mcc505.gprs
198.142.211.254		22rrvgpdns01.mnc002.mcc505.gprs
198.142.211.252		33vsvgpdns01.epc.mnc002.mcc505.3gppnetwork.org
198.142.211.254		22rrvgpdns01.epc.mnc002.mcc505.3gppnetwork.org

List of PMN local caching DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
198.142.211.252		33vsvgpdns01.mnc002.mcc505.gprs
198.142.211.254		22rrvgpdns01.mnc002.mcc505.gprs
198.142.211.252		33vsvgpdns01.epc.mnc002.mcc505.3gppnetwork.org
198.142.211.254		22rrvgpdns01.epc.mnc002.mcc505.3gppnetwork.org

List of GRX Providers	GRX Provider
	Syniverse (22870) BICS (6774)

History of changes

Date	Description
2019-11-29	Removal of legacy DNS IP Addresses & Names
2019-11-29	Update Backbone IP Address Ranges
2018-11-27	Correction & Additions to DNS IP Addresses & Names
2018-11-27	Correction & Additions to DNS IP Addresses & Names
2018-11-14	Addition of new authoritative DNS details (198.142.211.252 & 198.142.211.254)

Date	Description
2018-11-14	Addition of new Local DNS details
2018-10-02	Add IP Addresses
2018-10-02	Update GRX Providers
2018-02-15	Added GRX provider and ASN BICS 6774
2016-09-20	Added Authoritative DNS server (same as Local caching)
2015-05-01	Added GRX provider and ASN Syniverse 22870
2015-04-29	Added new ASN
2015-04-29	Added new IP address range
2014-09-10	61.88.189.0/24 added to IP address ranges
2014-09-05	Addition of DNS names
2013-10-29	Additional ASN 7474 and 4804 included

MMS Interworking Information

TADIG code: AUSOP
Section ID: 18 (Optional)
Effective date of change: 2014-09-05

MMS Elements Data

Domain name of MMSC	IP Address	Max. size of MMS allowed	Delivery Report allowed? (Yes / No)	Read Report allowed? (Yes / No)	IP address(es) of Incoming MTA	IP address(es) of Outgoing MTA
imms.mnc002.mcc505.gprs	198.142.229.0/24	2000	Yes	No	198.142.229.14	198.142.229.10 198.142.229.11 198.142.229.12 198.142.229.13

List of MMS IW Hub Provider	MMS IW Hub Provider Name	GT address(es)
	Aicent	

History of changes

Date	Description
2014-09-05	Change to Incoming and Outgoing MTA IP addresses
2011-05-23	Changed MMS Read Report to No. Added MMS IW Hub Provider - Aicent

LTE Roaming Information
TADIG code: AUSOP
Section ID: 20 (Optional)
Effective date of change: 2018-09-14

IPX Provider Name	IPX DA Realm Used	Diameter Architecture
Syniverse	epc.mnc002.mcc505.3gppnetwork.org	Option5

Primary IP address of DA	Secondary IP address of DA	

IPX Provider Name	IPX DA Realm Used	Diameter Architecture
BICS	epc.mnc002.mcc505.3gppnetwork.org	Option5

Primary IP address of DA	Secondary IP address of DA	

Roaming Interconnection

EPC Realms For Roaming	
	epc.mnc002.mcc505.3gppnetwork.org
	epc.mnc002.mcc505.3gppnetwork.org

FQDN Diameter Edge Agent

FQDN	Primary IP Address DEA FQDN	Secondary IP Address DEA FQDN
s001.hkgdra001.aicent.grx	216.200.79.131 216.200.79.147	
s001.sindra001.aicent.grx	216.200.74.195 216.200.74.211	

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 delivery over NAS
false	true

Voice ITW

CSFB

Roaming CS Fallback

Roaming Retry (MTTR)

		HPMN	VPMN
LTE Roaming Agreement Only	LTE Only Roaming Supported	Yes	Yes
2G/3G Roaming Agreement Only	Scenario 2 Supported	No	Yes
	Scenario 3 Supported	Yes	Yes
2G/3G/LTE Roaming Agreement	Scenario 1 Supported	No	Yes
	Scenario 2 Supported	Yes	Yes
	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:	WEB BROWSING
QCI Value List:	1
	2
	5
	9
QOS ARP List:	9
ARP Preemption Vulnerability List:	0
ARP Preemption Capability List:	1

IPv6 Connectivity Information		
	IPv6 PDP Supported	IPv4v6 PDP Supported
MME Support	Yes	Yes
SGW Support	Yes	Yes
PGW Support	Yes	Yes

Information for Diameter certificates exchange	
Certificate of 1st IPsec gateway	No
Certificate of 2nd IPsec gateway	No
Operator roaming sub-CA certificate	No

History of changes

Date	Description
2018-09-14	Updated IPX
2018-08-28	inserted MCC & MNC for EPS realms (missing after schema version)
2017-06-16	Updated ARP value
2017-06-16	v2
2017-06-09	Updated EPC QoS
2016-09-20	Updated Scenario 5 & 6 for 2G/3G LTE agreement as not supported
2015-05-01	Updated FQDN
2015-04-29	Updated LTE settings: IPv4v6 not yet supported (but planned), added new FQDN information and ARPPreemption information.
2015-01-16	New S6a hostname added to LTE section
2014-10-31	Addition of S6a hostnames to LTE section
2014-09-10	Update to S6a Hostnames list
2014-09-05	LTE section - updated SMS delivery over SGs
2014-09-05	LTE ARP information updated
2014-09-05	LTE Roaming Information section added

CONTACT INFORMATION

TADIG code: AUSOP
Section ID: 21 (Optional, Repeating)
Effective date of change: 2018-05-24

List of Roaming Troubleshooting Contact Information				
Roaming Troubleshooting Contact Information				
Location		Macquarie Park, Australia		
Office Time Zone in UTC		+10:00		
Office Hours	**Week Day (s)**	**Start Time**		**End Time**
	all week days	09:00:00		17:00:00
Main Contact for Troubleshooting (Office Hours)				
Team Name	**Tel.**	**Mobile**	**Fax**	**Email**
International Faults Team - options 3,2,2	61280858445			InternationalFaultSupport@nokia.optusvendor.com.au, NokiaNMCCVSTeam@nka.optusvendor.com.au
Escalation Contact for Troubleshooting				
Person Name	**Tel.**	**Mobile**	**Fax**	**Email**
Product Operations				pdintroamgroup@optus.com.au
24 x 7 Troubleshooting (contact out of Office Hours)				
Team Name	**Tel.**	**Mobile**	**Fax**	**Email**
International Faults Team - options 3,2,2	61280858445			InternationalFaultSupport@nokia.optusvendor.com.au, NokiaNMCCVSTeam@nka.optusvendor.com.au
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**
	International Switch Operations			
	JobTitle		**Email**	
			INT.SWITCH.OPS@optus.com.au	

Roaming Coordinator				
	Person Name	**Tel.**	**Mobile**	**Fax**
	Product Operations			
	JobTitle		**Email**	
	Product Operations		pdintroamgroup@optus.com.au	

IREG Tests				
	Person Name	**Tel.**	**Mobile**	**Fax**
	IREG Testers			
	JobTitle		**Email**	
			SDCMIP.GPRS&3G@optus.com.au	

TADIG Tests				
	Person Name	**Tel.**	**Mobile**	**Fax**
	TADIG Testers			61280855144
	JobTitle		**Email**	
			roamingbilling@optus.com.au	

CAMEL Tests				
	Person Name	**Tel.**	**Mobile**	**Fax**
	IREG Testers			
	JobTitle		**Email**	
			SDCMIP.GPRS&3G@optus.com.au	

IR21 Distribution Email Address	**Email**
	pdintroamgroup@optus.com.au

History of changes

Date	Description
2018-05-24	New email address for Faults team
2017-06-09	Updated contacts
2015-05-18	Updated IR21 distribution address to pdintroamgroup@optus.com.au.

Date	Description
2015-01-16	Updated 24 x 7 Troubleshooting contact details
2014-10-29	Updated IR21 distribution email address
2014-10-29	Updated contacts
2014-10-29	Updated contacts
2014-10-27	Contacts updated
2013-10-28	Updated International Faults contact number
2013-04-26	Updated Roaming Coordinator contact
2013-01-08	Updated Roaming Coordinator details
2013-01-08	Updated International Roaming Coordinator details

SECTIONS NOT IN USE

TADIG Code	Section ID	Section Name
AUSOP	6	Domestic SCCP Gateway
AUSOP	9	Test Numbers Information
AUSOP	11	MAP Optimal Routing Section
AUSOP	12	MAP Inter Operator SMS Enhancement
AUSOP	14	USSD Information
AUSOP	19	WLAN Information
AUSOP	22	Hosted Networks
AUSOP	23	M2M Roaming Information
AUSOP	24	MVNO Information
AUSOP	26	VoLTE Roaming Information Section
AUSOP	27	LPWA Roaming Information Section