



GSMA Roaming Database

IR.21 Data



RAEX IR.21 Information

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ORGANISATION INFORMATION

Section ID: 1 (Mandatory)

Organisation name:	Hong Kong Telecommunications (HKT) Limited
Country initials:	HKG

TADIG summary

TADIG Code	MCC	MNC	VPMN / HPMN	Network type
HKGTC	454	00	VPMN, HPMN	Terrestrial
HKGM3	454	19	HPMN	Terrestrial
HKGNW	454	10	HPMN	Terrestrial



History of changes

TADIG Code	Section ID	Section	Date	Description
HKGTC	4	Routing Information	2023-08-09	Add new MSISDN Ranges 8524679; 8528482
HKGTC	4	Routing Information	2023-08-09	Add info to fulfill new RAEX schema
HKGTC	4	Routing Information	2023-08-09	Additional info being simplified to fulfill new RAEX schema
HKGTC	16	Packet Data Service Information	2023-08-09	Add info to fulfill new RAEX schema
HKGTC	17	GRX/IPX routing for data roaming	2023-08-09	Add GRX Provider "BBIX"
HKGTC	20	LTE Roaming Information	2023-08-09	Add IPX Provider Name "BBIX"
HKGTC	26	VoLTE Roaming Information Section	2023-08-09	Add info to fulfill new RAEX schema
HKGM3	4	Routing Information	2023-08-09	Add info to fulfill new RAEX schema
HKGM3	4	Routing Information	2023-08-09	Additional info being simplified to fulfill new RAEX schema
HKGM3	16	Packet Data Service Information	2023-08-09	Add info to fulfill new RAEX schema
HKGM3	17	GRX/IPX routing for data roaming	2023-08-09	Add GRX Provider "BBIX"
HKGM3	20	LTE Roaming Information	2023-08-09	Add IPX Provider Name "BBIX"
HKGM3	26	VoLTE Roaming Information Section	2023-08-09	Add info to fulfill new RAEX schema
HKGTC	13	Network Elements Information	2023-02-28	new PGW IP 74.118.67.0/27
HKGTC	13	Network Elements Information	2023-02-28	new PGW IP 131.166.130.0/24, 131.166.132.0/24, 131.166.134.0/24, 131.166.136.0/24, 213.144.191.56/29, 213.144.191.224/29, 213.144.191.216/30, 213.144.191.220/30
HKGTC	17	GRX/IPX routing for data roaming	2023-02-28	new PGW IP 74.118.67.0/27
HKGM3	13	Network Elements Information	2023-02-28	new PGW IP 74.118.67.0/27, 74.118.67.32/27, 131.166.130.0/24, 131.166.132.0/24, 131.166.134.0/24, 131.166.136.0/24, 213.144.191.56/29, 213.144.191.224/29, 213.144.191.216/30, 213.144.191.220/30
HKGM3	17	GRX/IPX routing for data roaming	2023-02-28	new PGW IP 74.118.67.0/27
HKGM3	17	GRX/IPX routing for data roaming	2023-02-28	new PGW IP 74.118.67.32/27
HKGTC	17	GRX/IPX routing for data roaming	2023-01-05	Update inter-PMN IP backbone address ranges: remove 213.144.191.216/29, add 213.144.191.56/29, add 213.144.191.224/29, add 213.144.191.216/30, add 213.144.191.220/30
HKGTC	21	Contact Information	2023-01-05	update contacts
HKGM3	17	GRX/IPX routing for data roaming	2023-01-05	Update inter-PMN IP backbone address ranges: remove 213.144.191.216/29, add 213.144.191.56/29, add 213.144.191.224/29, add 213.144.191.216/30, add 213.144.191.220/30
HKGM3	21	Contact Information	2023-01-05	update contacts
HKGTC	20	LTE Roaming Information	2022-09-14	LTE QoS profiles added
HKGTC	20	LTE Roaming Information	2022-09-14	LTE QoS profiles added
HKGTC	26	VoLTE Roaming Information Section	2022-09-14	S8HR roaming constraints updated
HKGTC	13	Network Elements Information	2022-09-13	New SMSC 85290240591
HKGTC	20	LTE Roaming Information	2022-09-13	LTE QoS profiles added
HKGTC	26	VoLTE Roaming Information Section	2022-09-13	Add VoLTE Roaming information Section
HKGTC	4	Routing Information	2022-07-05	Add new MSISDN Ranges 852441, 852578
HKGTC	4	Routing Information	2022-05-26	Add new MSISDN Ranges 8524445-8524449, 8529590-8529594, 8524678, 8529291
HKGTC	13	Network Elements Information	2022-05-26	remove SMSC 85290210724
HKGTC	21	Contact Information	2022-05-26	update contacts
HKGM3	21	Contact Information	2022-05-26	update contact
HKGTC	4	Routing Information	2021-10-04	Remove MSISDN Range(s) 852 5140; 852 5142; 852 5144
HKGTC	13	Network Elements Information	2021-10-04	Add SMSC 85290240515; Add SCP 85290240600
HKGTC	17	GRX/IPX routing for data roaming	2021-10-04	Add inter-PMN IP backbone address range 213.144.191.216/29
HKGM3	13	Network Elements Information	2021-10-04	Add SMSC 85290240515; Add SCP 85290240600



TADIG Code	Section ID	Section	Date	Description
HKGM3	17	GRX/IPX routing for data roaming	2021-10-04	Add inter-PMN IP backbone address range 213.144.191.216/29
HKGTC	13	Network Elements Information	2021-06-17	Add SMSC 85290240541xxxx; Add SCP 85290240545xxxx; Add HLR 85290240546xxxx, 85290240547xxxx, 85290240548xxxx
HKGTC	13	Network Elements Information	2021-06-11	Add PGW: 74.118.67.32/27; Add SCP 85290240601; Add SMSC: 85290240581, 85290240505, 85290240506, 85290240507, 85290240508, 85290240509, 85290240602
HKGTC	16	Packet Data Service Information	2021-06-11	Update the IPv6 Connectivity Information
HKGTC	17	GRX/IPX routing for data roaming	2021-06-11	Add inter-PMN IP backbone address ranges 74.118.67.32/27; Add ASN 36060
HKGTC	17	GRX/IPX routing for data roaming	2021-06-11	Remove BICS from GRX Provider.
HKGTC	20	LTE Roaming Information	2021-06-11	Update the IPv6 Connectivity Information
HKGTC	21	Contact Information	2021-06-11	Update IREG testing, CAMEL testing, GRX connectivity at PMN, and Other contacts.
HKGM3	16	Packet Data Service Information	2021-06-11	Update the IPv6 Connectivity Information
HKGM3	17	GRX/IPX routing for data roaming	2021-06-11	Remove BICS from GRX Provider.
HKGM3	20	LTE Roaming Information	2021-06-11	Update the IPv6 Connectivity Information
HKGM3	21	Contact Information	2021-06-11	Update IREG testing, CAMEL testing, GRX connectivity at PMN, and Other contacts.
HKGTC	13	Network Elements Information	2021-03-11	Add New information of SCP/SMSC/PGW
HKGTC	17	GRX/IPX routing for data roaming	2021-03-11	Add New IP range and ASN
HKGM3	13	Network Elements Information	2021-03-11	Add New information of SCP/SMSC/PGW
HKGM3	17	GRX/IPX routing for data roaming	2021-03-11	Add New IP range and ASN
HKGTC	16	Packet Data Service Information	2021-03-09	Add 3 New APNs in WEB List
HKGM3	16	Packet Data Service Information	2021-03-09	Add 3 New APNs in WEB List
HKGTC	20	LTE Roaming Information	2020-12-08	No new S6a Diameter connection to Syniverse IPX.
HKGM3	20	LTE Roaming Information	2020-12-08	No new S6a Diameter connection to Syniverse IPX.
HKGTC	4	Routing Information	2020-07-22	Add new MSISDN Range 852 8480
HKGTC	4	Routing Information	2020-07-22	Add item "i" under "DIAMETER INFORMATION" in "Additional Information" to describe the realm of HKT.
HKGTC	13	Network Elements Information	2020-07-22	Add PGW 131.166.165.48/29
HKGTC	17	GRX/IPX routing for data roaming	2020-07-22	Add inter-PMN IP backbone address ranges: 131.166.165.48/29
HKGM3	4	Routing Information	2020-07-22	Add item "i" under "DIAMETER INFORMATION" in "Additional Information" to describe the realm of HKT.
HKGM3	13	Network Elements Information	2020-07-22	Add PGW 131.166.165.48/29
HKGM3	17	GRX/IPX routing for data roaming	2020-07-22	Add inter-PMN IP backbone address ranges: 131.166.165.48/29
HKGTC	4	Routing Information	2020-04-03	Add new MSISDN Range(s) 852 4654; 852 4655; 852 4656; 852 4657; 852 4658; 852 7080; 852 7081; 852 7082; 852 7083; 852 7084;
HKGTC	4	Routing Information	2020-04-03	Add MSISDN Range(s) 852 5149
HKGTC	13	Network Elements Information	2020-04-03	Add PGW 131.166.163.32/29 and PGW 131.166.165.32/29
HKGTC	17	GRX/IPX routing for data roaming	2020-04-03	Add inter-PMN IP backbone address ranges: 131.166.134.0/24; 131.166.136.0/24; 131.166.130.0/24; 131.166.132.0/24; 131.166.163.32/29; 131.166.165.32/29
HKGTC	17	GRX/IPX routing for data roaming	2020-04-03	Add ASN 22870 and 3321
HKGTC	17	GRX/IPX routing for data roaming	2020-04-03	Add remarks for GRX provider "PCCW Global".
HKGTC	20	LTE Roaming Information	2020-04-03	Add remarks for IPX Provider Name "PCCW Global".
HKGM3	13	Network Elements Information	2020-04-03	Add PGW 131.166.163.32/29 and PGW 131.166.165.32/29
HKGM3	13	Network Elements Information	2020-04-03	Add MSC/VLR +85292394627
HKGM3	17	GRX/IPX routing for data roaming	2020-04-03	Add inter-PMN IP backbone address ranges: 131.166.134.0/24; 131.166.136.0/24; 131.166.130.0/24; 131.166.132.0/24; 131.166.163.32/29; 131.166.165.32/29
HKGM3	17	GRX/IPX routing for data roaming	2020-04-03	Add ASN 22870 and 3321



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HKGM3	17	GRX/IPX routing for data roaming	2020-04-03	Add remarks for GRX provider "PCCW Global".
HKGM3	20	LTE Roaming Information	2020-04-03	Add remarks for IPX Provider Name "PCCW Global".
HKGTC	4	Routing Information	2019-08-30	Add new MSISDN Range(s) 852 4614 and 852 6362
HKGTC	17	GRX/IPX routing for data roaming	2019-08-30	Update the GRX Provider information of PCCW Global
HKGTC	17	GRX/IPX routing for data roaming	2019-08-30	Remove the ASN 18101 and 3321
HKGTC	20	LTE Roaming Information	2019-08-30	For security reason, remove the host name of HKT DEA
HKGTC	20	LTE Roaming Information	2019-08-30	Update the IPX Provider Name information of PCCW Global
HKGM3	17	GRX/IPX routing for data roaming	2019-08-30	Update the GRX Provider information of PCCW Global
HKGM3	17	GRX/IPX routing for data roaming	2019-08-30	Remove the ASN 18101 and 3321
HKGM3	20	LTE Roaming Information	2019-08-30	For security reason, remove the host name of HKT DEA
HKGM3	20	LTE Roaming Information	2019-08-30	Update the IPX Provider Name information of PCCW Global
HKGTC	4	Routing Information	2019-04-30	New MSISDN Range 852 4613
HKGTC	17	GRX/IPX routing for data roaming	2019-04-30	Primary provider updated.
HKGTC	20	LTE Roaming Information	2019-04-30	Primary provider updated.
HKGM3	17	GRX/IPX routing for data roaming	2019-04-30	Primary provider updated.
HKGM3	20	LTE Roaming Information	2019-04-30	Primary provider updated.
HKGTC	20	LTE Roaming Information	2018-12-14	Add IPX_Provider_Name info to fulfill new RAEX schema.
HKGTC	20	LTE Roaming Information	2018-12-14	Add IPX_Provider_Name info to fulfill new RAEX schema.
HKGM3	20	LTE Roaming Information	2018-12-14	Add IPX_Provider_Name info to fulfill new RAEX schema.
HKGTC	20	LTE Roaming Information	2018-12-13	Add IPX Provider Information
HKGM3	13	Network Elements Information	2018-12-13	Remove those obsoleted network elements
HKGM3	20	LTE Roaming Information	2018-12-13	Add IPX Provider Information
HKGTC	4	Routing Information	2018-12-12	Add new MSISDN Range 852 4611, 852 4640, 852 5749 and 852 8481
HKGTC	13	Network Elements Information	2018-12-12	Add new SMSC GT 852 902 40727
HKGM3	13	Network Elements Information	2018-12-12	Add new SMSC GT 852 902 40727
HKGTC	4	Routing Information	2018-05-21	Add New MSISDN Range 852 4610 and 852 6360
HKGTC	13	Network Elements Information	2018-05-21	Add New SMSC GT Address 85290240718, 85290240733.
HKGTC	13	Network Elements Information	2018-05-21	Add New SCP GT Address 85290240717.
HKGTC	17	GRX/IPX routing for data roaming	2018-05-21	Add RAI and ULI Additional MCC/MNC 454 16.
HKGTC	17	GRX/IPX routing for data roaming	2018-05-21	Remove PMN authoritative and local caching DNS server IP addresses 203.210.11.129
HKGM3	4	Routing Information	2018-05-21	Remove MSISDN Range 852 4647
HKGM3	13	Network Elements Information	2018-05-21	Add New SMSC GT Address 85290240718, 85290240733.
HKGM3	13	Network Elements Information	2018-05-21	Add New SCP GT Address 85290240717.
HKGM3	17	GRX/IPX routing for data roaming	2018-05-21	Add RAI and ULI Additional MCC/MNC 454 16.
HKGM3	17	GRX/IPX routing for data roaming	2018-05-21	Remove PMN authoritative and local caching DNS server IP addresses "202.4.198.36" & "203.210.11.129".
HKGTC	4	Routing Information	2018-02-13	Modify the wording of "Additional Information".
HKGTC	4	Routing Information	2018-02-13	Remove the wording HKGMC/454 16 and 45416 from segment "a" of "Additional Information [1] GENERAL INFORMATION".
HKGTC	4	Routing Information	2018-02-13	Remove 45416 from "segment "c" of "Additional Information - [2] PACKET DATA SERVICES INFORMATION".
HKGTC	4	Routing Information	2018-02-13	HKT has migrated all customers with HKGMC/45416 IMSI level to either HKGTC/45400 or HKGM3/45419. HKGMC/45416 will no longer be used for our outbound roaming, effective on 01st January 2018.
HKGM3	4	Routing Information	2018-02-13	Modify the wording of "Additional Information".
HKGM3	4	Routing Information	2018-02-13	Remove MCC MNC 454 16 to MGT (CC) MGT (NC) 852 923 from "Networks" of "Additional Information".



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HKGM3	4	Routing Information	2018-02-13	Remove the wording HKGMC/454 16 and 45416 from segment "a" of "Additional Information [1] GENERAL INFORMATION".
HKGM3	4	Routing Information	2018-02-13	Remove 45416 from "segment "c" of "Additional Information - [2] PACKET DATA SERVICES INFORMATION".
HKGM3	4	Routing Information	2018-02-13	HKT has migrated all customers with HKGMC/45416 IMSI level to either HKGTC/45400 or HKGM3/45419. HKGMC/45416 will no longer be used for our outbound roaming, effective on 01st January 2018.
HKGM3	4	Routing Information	2018-02-13	Remove "16 (TADIG Code: HKGMC)" from "Networks" of Additional Information" for MCC=454 MNC=16.
HKGTC	13	Network Elements Information	2018-02-12	Add two new SMSC GT addresses 85290240715 and 85290240731.
HKGTC	17	GRX/IPX routing for data roaming	2018-02-12	Remove 454/16 from of "RAI/ULI Additional MCC/MNC List".
HKGTC	17	GRX/IPX routing for data roaming	2018-02-12	Remove IP 203.210.10.129 of "List of PMN authoritative/local caching DNS server IP addresses and names".
HKGTC	17	GRX/IPX routing for data roaming	2018-02-12	Re-arrange the sequence of "List of PMN authoritative/local caching DNS server IP addresses and names".
HKGM3	13	Network Elements Information	2018-02-12	Add two new SMSC GT addresses 85290240715 and 85290240731.
HKGM3	16	Packet Data Service Information	2018-02-12	Delete "mnc016.mcc454.gprs & For 2G subscriber" from "List of APN Operator Identifiers".
HKGM3	16	Packet Data Service Information	2018-02-12	Delete the obsoleted APN from "APN" WEB List", only remain the APN pccw/blackberry.net/internet/mobile.
HKGM3	16	Packet Data Service Information	2018-02-12	Delete obsoleted APN from "APN WAP List", remain APN pccw/mobile.
HKGM3	16	Packet Data Service Information	2018-02-12	Delete obsoleted APN from "APN MMS List", remain APN pccw/mobile.
HKGM3	17	GRX/IPX routing for data roaming	2018-02-12	Remove 454/16 from of "RAI/ULI Additional MCC/MNC List".
HKGM3	17	GRX/IPX routing for data roaming	2018-02-12	Remove IP/name 202.4.210.32/YTG-4GGnDNS-2.epc.MNC019.MCC454.3gppnetwork.org, 202.4.210.32/YTG-4GGnDNS-2.MNC019.MCC454.GPRS, 203.210.10.129/ZDNS-Ex1. mnc016.mcc454.gprs of "List of PMN authoritative/local caching DNS server IP addresses and names".
HKGM3	17	GRX/IPX routing for data roaming	2018-02-12	Remove IP/name 202.4.210.32/YTG-4GGnDNS-2.MNC016.MCC454.GPRS, 203.210.10.129/ZDNS-Ex1.epc.mnc019.mcc454.3gppnetwork.org, 203.210.11.84/TPC-DNS11.mnc016.mcc454.gprs, of "List of PMN authoritative/local caching DNS server IP addresses and names".
HKGM3	17	GRX/IPX routing for data roaming	2018-02-12	Remove IP/name 203.210.11.85/TPC-DNS12.mnc016.mcc454.gprs, 203.210.11.68/KSG-DNS13.mnc016.mcc454.gprs, 203.210.11.69/KSG-DNS14.mnc016.mcc454.gprs of "List of PMN authoritative/local caching DNS server IP addresses and names".
HKGM3	17	GRX/IPX routing for data roaming	2018-02-12	Re-arrange the sequence of "List of PMN authoritative/local caching DNS server IP addresses and names".
HKGTC	4	Routing Information	2017-09-27	Add New MSISDN Number range 852 4647
HKGTC	4	Routing Information	2017-09-27	Add new MNP number ranges 852 4x/7x/8x
HKGTC	4	Routing Information	2017-09-27	Add MSISDN 852 (5140-5144), 852 520, 852 532, 852 (5702-5703)
HKGTC	13	Network Elements Information	2017-09-27	Delete PGW/SGW/SGSN-2G+3G IP 110.4.26.160/28 and GGSN IP 115.255.8.0/25, 131.166.254.0/29
HKGTC	17	GRX/IPX routing for data roaming	2017-09-27	Delete the non advertising IP_address 110.4.26.160/28, 115.255.8.0/25, 131.166.254.0/29.
HKGTC	17	GRX/IPX routing for data roaming	2017-09-27	PCCWG (merged its IPX domains with SAP's domains into a single domain and shares the same AS with SAP since Jun2017).
HKGM3	4	Routing Information	2017-09-27	Add new MSISDN range 852 4647
HKGM3	4	Routing Information	2017-09-27	Add new MNP number ranges 852 4x/7x/8x



TADIG Code	Section ID	Section	Date	Description
HKGM3	17	GRX/IPX routing for data roaming	2017-09-27	Delete the non advertising IP_address 110.4.26.160/28, 115.255.8.0/25, 131.166.254.0/29
HKGM3	17	GRX/IPX routing for data roaming	2017-09-27	PCCWG (merged its IPX domains with SAP's domains into a single domain and shares the same AS with SAP since Jun2017).
HKGTC	21	Contact Information	2017-09-25	Contact List updated. Remove the contact of Vivian Li.
HKGM3	21	Contact Information	2017-09-25	Contact List updated. Remove the contact of Vivian Li.
HKGTC	4	Routing Information	2017-05-31	Add back the missing HKGTC MSISDN 852923
HKGTC	4	Routing Information	2017-05-31	Modify the MNP Range same as HKGM3
HKGTC	4	Routing Information	2017-05-31	Modify the "Additional Information:PLMN used in Radio Broadcast: (essential if HPLMN analyze them during CAMEL PSI, IDP)"
HKGM3	4	Routing Information	2017-05-31	Modify the "Additional Information:PLMN used in Radio Broadcast: (essential if HPLMN analyze them during CAMEL PSI, IDP)"
HKGM3	17	GRX/IPX routing for data roaming	2017-05-31	Remove the "IP Address 202.4.210.31 and DNS Name= YTG-4GnDNS-1.epc.MNC019.MCC454.3gppnetwork.org" of the "List of PMN authoritative DNS server IP addresses and name" and "List of PMN local caching DNS server IP address and names"
HKGTC	4	Routing Information	2017-02-07	Add back the missing HKGTC MSISDN 852933
HKGTC	13	Network Elements Information	2017-02-03	Add SMSC GT Address 85290240712, 852902407(23-26) and SCP GT address 8529024071(3-4)
HKGTC	17	GRX/IPX routing for data roaming	2017-02-03	Add authoritative and local caching DNS server IP 203.210.11.68 and 203.210.11.69.
HKGTC	18	MMS Interworking Information	2017-02-03	Add a new MMSC with same Domain name "mmsc.hkcs1.com" and new IP Addresses (for One-MMSC migration)
HKGM3	13	Network Elements Information	2017-02-03	Add SMSC GT Address 85290240712, 852902407(23-26) and SCP GT address 8529024071(3-4)
HKGM3	17	GRX/IPX routing for data roaming	2017-02-03	Add authoritative and local caching DNS server IP 203.210.11.68 and 203.210.11.69
HKGM3	18	MMS Interworking Information	2017-02-03	Add a new MMSC with Domain name "mmsc.hkcs1.com" and new IP Addresses
HKGTC	21	Contact Information	2016-11-30	update the email address of IR21 distribution and contact person of TADIG
HKGM3	21	Contact Information	2016-11-30	Update the email address of IR21 distribution
HKGTC	4	Routing Information	2016-11-24	Add new MNP range 852 5702 xxxx to 852 5703 xxxx
HKGTC	17	GRX/IPX routing for data roaming	2016-11-24	Add authoritative/local caching DNS service IP 203.210.11.84 and 203.210.11.85. Remove GRX provider "SAP".
HKGTC	21	Contact Information	2016-11-24	Contact list update
HKGM3	17	GRX/IPX routing for data roaming	2016-11-24	Add authoritative/local caching DNS server IP 203.210.11.84 and 203.210.11.85. Remove GRX provider "SAP".
HKGM3	21	Contact Information	2016-11-24	Contact list update
HKGTC	20	LTE Roaming Information	2016-10-14	After the "maintenance window" of RAEX Tools on 13-Oct-2016 17:00 to 19:00 BST, we can choose "Unsupport" for 2G/3G LTE Roaming Agreement Scenario 5 without "validate error", so, we change back to "Unsupport" for bug error.
HKGM3	20	LTE Roaming Information	2016-10-14	After the "maintenance window" of RAEX Tools on 13-Oct-2016 17:00 to 19:00 BST, we can choose "Unsupport" for 2G/3G LTE Roaming Agreement Scenario 5 without "validate error", so, we change back to "Unsupport" for bug error.
HKGTC	4	Routing Information	2016-10-13	Add new MNP range 852 5720 - 852 5729
HKGTC	4	Routing Information	2016-10-13	Sort the E.164 number ranges for number portability
HKGTC	20	LTE Roaming Information	2016-10-13	According to IR 88 V 14.0, updated 2G/3G LTE Roaming Agreement Scenario 5 to "Support"
HKGM3	20	LTE Roaming Information	2016-10-13	According to IR 88 V 14.0, updated 2G/3G LTE Roaming Agreement Scenario 5 to "Support"
HKGTC	17	GRX/IPX routing for data roaming	2016-08-25	No change
HKGM3	17	GRX/IPX routing for data roaming	2016-08-25	No change



TADIG Code	Section ID	Section	Date	Description
HKGTC	13	Network Elements Information	2016-06-07	Correction of SMSC Address 852 902 16742 to 852 902 16724, 852 902 40971-40973 to 852 902 40970-40973 and 852 902 40985-40986 to 852 902 40984-40986
HKGTC	13	Network Elements Information	2016-06-07	Correction of the SMSC Address 852 902 41233-41235 to 852 921 41233-41235, 852 902 41238 to 852 921 41238 and 852 902 44051-44055 to 852 921 44051-44055
HKGTC	4	Routing Information	2016-05-10	Add new MNP number range
HKGTC	13	Network Elements Information	2016-05-10	Add new SMSC address
HKGTC	21	Contact Information	2016-05-10	Modify IR21 Distribution Email address List
HKGM3	13	Network Elements Information	2016-05-10	Add new SMSC address
HKGM3	17	GRX/IPX routing for data roaming	2016-05-10	Add new DNS sever IP address, DNS name
HKGTC	21	Contact Information	2016-04-29	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	20	LTE Roaming Information	2016-04-29	Modify the 2G/3G/LTE Roaming Agreement
HKGTC	4	Routing Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	5	International SCCP Gateway	2016-04-01	Create a combined IR21 of HKGTC and HKGM3
HKGTC	7	SCCP Protocol	2016-04-01	Create a combined IR21 of HKGTC and HKGM3
HKGTC	8	Subscriber Identity Authentication	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	10	MAP	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	10	MAP	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	13	Network Elements Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	14	USSD Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	15	CAMEL Information	2016-04-01	Create a combined IR21 of HKGTC and HKGM3
HKGTC	16	Packet Data Service Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	17	GRX/IPX routing for data roaming	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	18	MMS Interworking Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	20	LTE Roaming Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	21	Contact Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGTC	21	Contact Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	4	Routing Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	5	International SCCP Gateway	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	7	SCCP Protocol	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	8	Subscriber Identity Authentication	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	10	MAP	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	12	MAP Inter Operator SMS Enhancement	2016-04-01	Create a Combnded IR21 of HKGTC and HKGM3
HKGM3	13	Network Elements Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	14	USSD Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	15	CAMEL Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	16	Packet Data Service Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3.
HKGM3	17	GRX/IPX routing for data roaming	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	18	MMS Interworking Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	20	LTE Roaming Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	21	Contact Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
HKGM3	21	Contact Information	2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



NETWORK

Section ID: 2 (Mandatory, Repeating)

Section is applicable for the following TADIG code: HKGTC

TADIG code:	HKGTC	
Technology:	Frequency list:	Coverage:
2G-GSM	GSM 900, DCS 1800	
3G-UTRA/FDD	1 - IMT 2.1 GHz, 8 - 900 MHz	
3G-UTRA/TDD	Unsupported	
4G-E-UTRAN	8 - 900 MHz, 3 - DCS 1800, 7 - 2.6 GHz	
4G-E-UTRAN-MIoT-LTE-M	Unsupported	
4G-E-UTRAN-MIoT-NB-IoT	Unsupported	
MIoT-NB-IoT deployment mode	Unsupported	
EN-DC band combinations	5G-NSA: n1 (with LTE900 anchor ctrl), n78 (with LTE1800 anchor ctrl), n79 (with LTE1800 anchor ctrl), n257	
5G NR	n1 - FDD 2100, n78 - TDD 3500, n79 - TDD 4700, n257 - 28 GHz	

Service status and planned closure			
	Support	Planned partial closure	Planned full closure
2G	Supported		
3G	Supported		
4G	Supported		
MIoT-LTE-M	Unsupported		
MIoT-NB-IOT	Unsupported		
VoLTE	Supported		
5G-NG	Supported		



ROUTING INFORMATION

Section ID: 4 (Mandatory)

Section is applicable for the following TADIG code: HKGTC

Effective date of change: 2023-08-09

CCITT E.164 Number series	Country Code (CC)	National Destination Code (NDC)	SN Range Start	SN Range Stop	Primary International DPC	Secondary International DPC	Network owner	Location
MSISDN number ranges (s)								
	852	511					MNO	
	852	520					MNO	
	852	521					MNO	
	852	524					MNO	
	852	527					MNO	
	852	528	0	2			MNO	
	852	529					MNO	
	852	532					MNO	
	852	540					MNO	
	852	543					MNO	
	852	547					MNO	
	852	552					MNO	
	852	554	0	8			MNO	
	852	568					MNO	
	852	570	2	3			MNO	
	852	571	0	7			MNO	
	852	579					MNO	
	852	591					MNO	
	852	592					MNO	
	852	599					MNO	
	852	602					MNO	
	852	603					MNO	
	852	605					MNO	
	852	613					MNO	
	852	614					MNO	
	852	616					MNO	
	852	617					MNO	
	852	628					MNO	
	852	629					MNO	
	852	636	0	0			MNO	
	852	637					MNO	
	852	639					MNO	
	852	641					MNO	
	852	642					MNO	
	852	653					MNO	
	852	654					MNO	
	852	659					MNO	
	852	665					MNO	
	852	671					MNO	
	852	675					MNO	
	852	677					MNO	



CCITT E.164 Number series	Country Code (CC)	National Destination Code (NDC)	SN Range Start	SN Range Stop	Primary International DPC	Secondary International DPC	Network owner	Location
MSISDN number ranges (s)								
	852	682					MNO	
	852	689					MNO	
	852	697					MNO	
	852	902					MNO	
	852	903					MNO	
	852	908					MNO	
	852	909					MNO	
	852	910					MNO	
	852	915					MNO	
	852	918					MNO	
	852	919					MNO	
	852	921					MNO	
	852	923					MNO	
	852	925					MNO	
	852	926					MNO	
	852	930					MNO	
	852	933					MNO	
	852	940					MNO	
	852	946					MNO	
	852	953					MNO	
	852	955					MNO	
	852	961					MNO	
	852	962					MNO	
	852	965					MNO	
	852	976					MNO	
	852	978					MNO	
	852	987					MNO	
	852	988					MNO	
	852	4610	0	9			MNO	
	852	4611	0	9			MNO	
	852	4613	0	9			MNO	
	852	4614	0	9			MNO	
	852	4640	0	9			MNO	
	852	4647	0	9			MNO	
	852	5749	0	9			MNO	
	852	6362	0	9			MNO	
	852	8481	0	9			MNO	
	852	4654	0	9			MNO	
	852	4655	0	9			MNO	
	852	4656	0	9			MNO	
	852	4657	0	9			MNO	
	852	4658	0	9			MNO	
	852	7080	0	9			MNO	
	852	7081	0	9			MNO	
	852	7082	0	9			MNO	



CCITT E.164 Number series	Country Code (CC)	National Destination Code (NDC)	SN Range Start	SN Range Stop	Primary International DPC	Secondary International DPC	Network owner	Location
MSISDN number ranges (s)								
	852	7083	0	9			MNO	
	852	7084	0	9			MNO	
	852	5149	0	9			MNO	
	852	8480	0	9			MNO	
	852	514	1	1			MNO	
	852	514	3	3			MNO	
	852	444	5	9			MNO	
	852	959	0	4			MNO	
	852	467	8	8			MNO	
	852	929	1	1			MNO	
	852	441	0	9			MNO	
	852	578	0	9			MNO	
	852	4679	0	9			MNO	
	852	8482	0	9			MNO	

Network Nodes Global Title Number Range(s)								
	852	902	00000	99999			MNO	
	852	921	00000	99999			MNO	

MSRN Number Range(s)								
	852	616	40000	49999				
	852	639	45000	45999				
	852	902	40400	40499				
	852	902	44000	44999				
	852	902	46000	46999				
	852	921	49000	49999				
	852	940	70000	70999				
	852	940	71000	71999				
	852	940	72000	72999				
	852	940	73000	73999				
	852	940	74000	74999				

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	454	00

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	852	902

Does Number Portability apply ?	Yes
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Is 15 Digit MSISDN Supported ?	No
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USIM SIM Header	8985200, 8985210
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E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	852	42	2	9
	852	43	3	9
	852	44	0	9
	852	45	1	9
	852	46	0	9
	852	47	0	9



E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	852	51	0	9
	852	52	0	9
	852	53	0	9
	852	54	0	9
	852	55	0	9
	852	56	0	9
	852	57	0	9
	852	59	0	9
	852	60	1	9
	852	61	0	9
	852	62	0	9
	852	63	0	9
	852	64	0	9
	852	65	0	9
	852	66	0	9
	852	67	0	9
	852	68	0	9
	852	69	0	9
	852	70	1	8
	852	71	4	5
	852	71	7	8
	852	72	4	6
	852	73	4	6
	852	82	4	5
	852	82	8	9
	852	83	5	6
	852	83	8	9
	852	84	0	9
	852	85	3	9
	852	86	0	9
	852	87	0	9
	852	89	0	9
	852	90	1	9
	852	91	0	0
	852	91	2	9
	852	92	0	9
	852	93	0	9
	852	94	0	9
	852	95	0	9
	852	96	0	9
	852	97	0	9
	852	98	0	9
	852	404	0	9
	852	406	0	9
	852	409	3	9
	852	420	0	9
	852	481	0	9
	852	482	1	9
	852	486	0	9
	852	489	0	9
	852	492	3	9
	852	495	2	9
	852	498	0	9
	852	710	4	7
	852	710	9	9
	852	711	4	5
	852	711	8	8
	852	712	0	9
	852	713	2	2
	852	713	4	9
	852	716	0	8
	852	719	2	2
	852	719	4	5
	852	719	7	9
	852	721	0	0
	852	721	2	7
	852	721	9	9
	852	727	0	1
	852	727	3	6



E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	852	737	4	5
	852	737	7	8
	852	739	0	1
	852	739	4	4
	852	739	6	6
	852	815	0	9
	852	818	0	9
	852	827	5	9
	852	831	0	9
	852	832	5	8
	852	837	1	9
	852	850	0	1

Additional Information

IMSI translation: 45400->852902; 45410->852921; 45419->852923. Additional access no: +852171ABC/ABCD; +852178ABC/ABCD; +852179ABC/ABCD; +852176ABCD. IMSI 45400&45419 use single HSS realm "epc.mnc000.mcc454.3gppnetwork.org". HKT as VPLMN uses 1 single core network, MME realm "epc.mnc000.mcc454.3gppnetwork.org". HKT use multiple MCC-MNC in radio broadcast, they are 45400/45402/45416/45418/45419. If HPLMN uses ULI/RAI for charging, pls setup all MCC-MNCs.

History of changes

Date	Description
2023-08-09	Add new MSISDN Ranges 8524679; 8528482
2023-08-09	Add info to fulfill new RAEX schema
2023-08-09	Additional info being simplified to fulfill new RAEX schema
2022-07-05	Add new MSISDN Ranges 852441, 852578
2022-05-26	Add new MSISDN Ranges 8524445-8524449, 8529590-8529594, 8524678, 8529291
2021-10-04	Remove MSISDN Range(s) 852 5140; 852 5142; 852 5144
2020-07-22	Add new MSISDN Range 852 8480
2020-07-22	Add item "i" under "DIAMETER INFORMATION" in "Additional Information" to describe the realm of HKT.
2020-04-03	Add new MSISDN Range(s) 852 4654; 852 4655; 852 4656; 852 4657; 852 4658; 852 7080; 852 7081; 852 7082; 852 7083; 852 7084;
2020-04-03	Add MSISDN Range(s) 852 5149
2019-08-30	Add new MSISDN Range(s) 852 4614 and 852 6362
2019-04-30	New MSISDN Range 852 4613
2018-12-12	Add new MSIDN Range 852 4611, 852 4640, 852 5749 and 852 8481
2018-05-21	Add New MSISDN Range 852 4610 and 852 6360
2018-02-13	Modify the wording of "Additional Information".
2018-02-13	Remove the wording HKGMC/454 16 and 45416 from segment "a" of "Additional Information [1] GENERAL INFORMATION".
2018-02-13	Remove 45416 from "segment "c" of "Additional Information - [2] PACKET DATA SERVICES INFORMATION".
2018-02-13	HKT has migrated all customers with HKGMC/45416 IMSI level to either HKGTC/45400 or HKGM3/45419. HKGMC/45416 will no longer be used for our outbound roaming, effective on 01st January 2018.
2017-09-27	Add New MSISDN Number range 852 4647
2017-09-27	Add new MNP number ranges 852 4x/7x/8x
2017-09-27	Add MSISDN 852 (5140-5144), 852 520, 852 532, 852 (5702-5703)
2017-05-31	Add back the missing HKGTC MSISDN 852923
2017-05-31	Modify the MNP Range same as HKGM3
2017-05-31	Modify the "Additional Information:PLMN used in Radio Broadcast: (essential if HPLMN analyze them during CAMEL PSI, IDP)"
2017-02-07	Add back the missing HKGTC MSISDN 852933
2016-11-24	Add new MNP range 852 5702 xxxx to 852 5703 xxxx
2016-10-13	Add new MNP range 852 5720 - 852 5729
2016-10-13	Sort the E.164 number ranges for number portability
2016-05-10	Add new MNP number range



Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



INTERNATIONAL SCCP GATEWAY

Section ID: 5 (Optional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2016-04-01

International SCCP carrier list	
SCCP carrier name:	SCCP Carrier
Connectivity information:	Primary
DPC info:	
Signature:	VPD
Type:	STP/SCCP
International DPC:	3.4.1
Comments:	3.4.1 is the alias point code used for Montreal STP (3.6.0) and Toronto STP (3.5.0). Tata Communications
DPC info:	
Signature:	VPP
Type:	STP/SCCP
International DPC:	3.10.7
Comments:	3.10.7 is the alias point code used for London STP (3.11.0) and Frankfurt STP (3.11.1) . Tata Communications
SCCP carrier name:	SCCP Carrier
Connectivity information:	Primary
DPC info:	
Signature:	HKE
Type:	ISC
International DPC:	4.108.0
Comments:	
DPC info:	
Signature:	HKH
Type:	ISC
International DPC:	4.108.1
Comments:	
SCCP carrier name:	SCCP Carrier
Connectivity information:	Primary
DPC info:	
Signature:	CITP4
Type:	ISC
International DPC:	4.177.1
Comments:	
DPC info:	
Signature:	CITP3
Type:	ISC
International DPC:	4.178.3
Comments:	

History of changes



Date	Description
2016-04-01	Create a combined IR21 of HKGTC and HKGM3

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

Section ID: 7 (Optional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2016-04-01

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

History of changes

Date	Description
2016-04-01	Create a combined IR21 of HKGTC and HKGM3

**SUBSCRIBER IDENTITY AUTHENTICATION**

Section ID: 8 (Optional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2016-04-01

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 A5/2 A5/3

History of changes

Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**MOBILE APPLICATION PART (MAP)**

Section ID: 10 (Optional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2016-04-01

Interworking specifically for roaming				
Application context name	Current version in			Comments
	Inbound roaming		Outbound roaming	
	MSC/VLR	SGSN	Outbound roaming	
networkLocUp	MAPv3	N/A	-	
roamingNumberEnquiry	MAPv3	N/A	-	
InfoRetrieval	MAPv3	MAPv3	-	
subscribeDataMngt	MAPv3	MAPv3	-	
networkFunctionalSs	MAPv2	N/A	-	
mwdMngt	MAPv2	MAPv2	-	
shortMsgMT-Relay (called shortMsgRelay in v1)	MAPv2	MAPv2	-	
shortMsgMO-Relay (called shortMsgRelay in v1)	MAPv2	MAPv2	-	
ss-InvocationNotification	-	N/A	-	
subscriberInfoEnquiry	MAPv3	-	-	
gprsLocationUpdate	N/A	MAPv3	-	
locationCancellation	MAPv3	MAPv3	-	
msPurging	MAPv3	MAPv3	-	
reset	MAPv2	MAPv2	-	
networksUnstructuredSs	MAPv2	N/A	-	
reporting	MAPv3	N/A	-	
callCompletion	MAPv3	N/A	-	
istAlerting	-	N/A	-	
service Termination	-	N/A	-	
locationSvcGateway	N/A	N/A	-	
mm-EventReporting	-	N/A	-	
authenticationFailureReport	-	-	-	
imsiRetrieval	MAPv2	N/A	-	
gprsNotifyContext	N/A	-	-	
gprsLocationInfoRetrieval	N/A	-	-	
faillureReport	N/A	-	-	
secureTransportHandling	-	-	-	

History of changes

Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



NETWORK ELEMENTS INFORMATION

Section ID: 13 (Optional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2023-02-28

Node type	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	UTC offset
HLR	852 902 00000 / 99999				+08:00
HLR	852 902 405460000 / 405489999				+08:00
HSS	852 902 00000 / 99999	14.0.185.0/24			+08:00
HSS	852 902 00000 / 99999	14.0.184.0/24			+08:00
MSC/VLR-2G+3G	852 902 00000 / 99999				+08:00
PGW		110.4.10.0/24			+08:00
PGW		203.210.11.0/24			+08:00
PGW		203.210.10.0/24			+08:00
PGW		131.166.163.32/29			+08:00
PGW		131.166.165.32/29			+08:00
PGW		131.166.165.48/29			+08:00
PGW		65.72.92.0/24			+08:00
PGW		65.72.93.0/24			+08:00
PGW		65.72.94.0/24			+08:00
PGW		74.118.67.32/27			+08:00
PGW		74.118.67.0/27			+08:00
PGW		131.166.130.0/24			+08:00
PGW		131.166.132.0/24			+08:00
PGW		131.166.134.0/24			+08:00
PGW		131.166.136.0/24			+08:00
PGW		213.144.191.56/29			+08:00
PGW		213.144.191.224/29			+08:00
PGW		213.144.191.216/30			+08:00
PGW		213.144.191.220/30			+08:00
SCP	852 902 03724 / 03724				+08:00
SCP	852 902 07944 / 07944				+08:00
SCP	852 902 40524 / 40524				+08:00
SCP	852 902 40600 / 40600				+08:00
SCP	852 902 40601 / 40601				+08:00
SCP	852 902 40713 / 40714				+08:00
SCP	852 902 40717 / 40717				+08:00
SCP	852 902 405450000 / 405459999				+08:00
SGSN-2G+3G	852 902 00000 / 99999	203.210.11.0/24			+08:00
SGSN-2G+3G	852 902 00000 / 99999	203.210.10.0/24			+08:00
SGSN-2G+3G	852 902 00000 / 99999	110.4.10.0/24			+08:00
SGW		110.4.10.0/24			+08:00
SGW		203.210.11.0/24			+08:00
SGW		203.210.10.0/24			+08:00
SMSC	852 902 00006 / 00006				+08:00
SMSC	852 902 00107 / 00107				+08:00
SMSC	852 902 00427 / 00427				+08:00
SMSC	852 902 00496 / 00496				+08:00
SMSC	852 902 00513 / 00513				+08:00
SMSC	852 902 00573 / 00573				+08:00
SMSC	852 902 01452 / 01452				+08:00
SMSC	852 902 01478 / 01478				+08:00
SMSC	852 902 01714 / 01714				+08:00
SMSC	852 902 01949 / 01949				+08:00
SMSC	852 902 02940 / 02940				+08:00
SMSC	852 902 03449 / 03449				+08:00
SMSC	852 902 03465 / 03465				+08:00
SMSC	852 902 03467 / 03467				+08:00
SMSC	852 902 03529 / 03529				+08:00
SMSC	852 902 04204 / 04204				+08:00
SMSC	852 902 04258 / 04258				+08:00
SMSC	852 902 04647 / 04647				+08:00
SMSC	852 902 06244 / 06244				+08:00
SMSC	852 902 07542 / 07543				+08:00
SMSC	852 902 08147 / 08147				+08:00
SMSC	852 902 09342 / 09342				+08:00
SMSC	852 902 09537 / 09537				+08:00



Node type	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	UTC offset
SMSC	852 902 09572 / 09572				+08:00
SMSC	852 902 11047 / 11047				+08:00
SMSC	852 902 12247 / 12247				+08:00
SMSC	852 902 15647 / 15647				+08:00
SMSC	852 902 16724 / 16724				+08:00
SMSC	852 902 18347 / 18347				+08:00
SMSC	852 902 19461 / 19461				+08:00
SMSC	852 902 24047 / 24047				+08:00
SMSC	852 902 24147 / 24147				+08:00
SMSC	852 902 25124 / 25124				+08:00
SMSC	852 902 25614 / 25614				+08:00
SMSC	852 902 25814 / 25814				+08:00
SMSC	852 902 26124 / 26124				+08:00
SMSC	852 902 26714 / 26714				+08:00
SMSC	852 902 26914 / 26914				+08:00
SMSC	852 902 33686 / 33688				+08:00
SMSC	852 902 37773 / 37775				+08:00
SMSC	852 902 39090 / 39092				+08:00
SMSC	852 902 39093 / 39093				+08:00
SMSC	852 902 40505 / 40509				+08:00
SMSC	852 902 40515 / 40515				+08:00
SMSC	852 902 40561 / 40561				+08:00
SMSC	852 902 40581 / 40581				+08:00
SMSC	852 902 40591 / 40591				+08:00
SMSC	852 902 40602 / 40602				+08:00
SMSC	852 902 40712 / 40712				+08:00
SMSC	852 902 40715 / 40715				+08:00
SMSC	852 902 40718 / 40718				+08:00
SMSC	852 902 40723 / 40726				+08:00
SMSC	852 902 40727 / 40727				+08:00
SMSC	852 902 40731 / 40731				+08:00
SMSC	852 902 40733 / 40733				+08:00
SMSC	852 902 40960 / 40969				+08:00
SMSC	852 902 40970 / 40973				+08:00
SMSC	852 902 40980 / 40980				+08:00
SMSC	852 902 40981 / 40982				+08:00
SMSC	852 902 40983 / 40983				+08:00
SMSC	852 902 40984 / 40986				+08:00
SMSC	852 902 43454 / 43454				+08:00
SMSC	852 902 43964 / 43964				+08:00
SMSC	852 902 49574 / 49574				+08:00
SMSC	852 902 49904 / 49904				+08:00
SMSC	852 902 50108 / 50110				+08:00
SMSC	852 902 50282 / 50282				+08:00
SMSC	852 902 50714 / 50714				+08:00
SMSC	852 902 50742 / 50742				+08:00
SMSC	852 902 50842 / 50842				+08:00
SMSC	852 902 55224 / 55224				+08:00
SMSC	852 902 55581 / 55581				+08:00
SMSC	852 902 55586 / 55586				+08:00
SMSC	852 902 55647 / 55647				+08:00
SMSC	852 902 55742 / 55742				+08:00
SMSC	852 902 56014 / 56014				+08:00
SMSC	852 902 56444 / 56444				+08:00
SMSC	852 902 56447 / 56447				+08:00
SMSC	852 902 56542 / 56542				+08:00
SMSC	852 902 57144 / 57144				+08:00
SMSC	852 902 57224 / 57224				+08:00
SMSC	852 902 57614 / 57614				+08:00
SMSC	852 902 57724 / 57724				+08:00
SMSC	852 902 58342 / 58342				+08:00
SMSC	852 902 59435 / 59435				+08:00
SMSC	852 902 59824 / 59824				+08:00
SMSC	852 902 60314 / 60314				+08:00
SMSC	852 902 60342 / 60342				+08:00



Node type	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	UTC offset
SMSC	852 902 61147 / 61147				+08:00
SMSC	852 902 61414 / 61414				+08:00
SMSC	852 902 61444 / 61444				+08:00
SMSC	852 902 61547 / 61547				+08:00
SMSC	852 902 65424 / 65424				+08:00
SMSC	852 902 66647 / 66647				+08:00
SMSC	852 902 66744 / 66744				+08:00
SMSC	852 902 66799 / 66799				+08:00
SMSC	852 902 70694 / 70694				+08:00
SMSC	852 902 71242 / 71242				+08:00
SMSC	852 902 74224 / 74224				+08:00
SMSC	852 902 75644 / 75644				+08:00
SMSC	852 902 88000 / 88000				+08:00
SMSC	852 902 90747 / 90747				+08:00
SMSC	852 902 95914 / 95914				+08:00
SMSC	852 902 96747 / 96747				+08:00
SMSC	852 902 405410000 / 405419999				+08:00
SMSC	852 921 41233 / 41235				+08:00
SMSC	852 921 41238 / 41238				+08:00
SMSC	852 921 44051 / 44055				+08:00

History of changes

Date	Description
2023-02-28	new PGW IP 74.118.67.0/27
2023-02-28	new PGW IP 131.166.130.0/24, 131.166.132.0/24, 131.166.134.0/24, 131.166.136.0/24, 213.144.191.56/29, 213.144.191.224/29, 213.144.191.216/30, 213.144.191.220/30
2022-09-13	New SMSC 85290240591
2022-05-26	remove SMSC 85290210724
2021-10-04	Add SMSC 85290240515; Add SCP 85290240600
2021-06-17	Add SMSC 85290240541xxxx; Add SCP 85290240545xxxx; Add HLR 85290240546xxxx, 85290240547xxxx, 85290240548xxxx
2021-06-11	Add PGW: 74.118.67.32/27; Add SCP 85290240601; Add SMSC: 85290240581, 85290240505, 85290240506, 85290240507, 85290240508, 85290240509, 85290240602
2021-03-11	Add New information of SCP/SMSC/PGW
2020-07-22	Add PGW 131.166.165.48/29
2020-04-03	Add PGW 131.166.163.32/29 and PGW 131.166.165.32/29
2018-12-12	Add new SMSC GT 852 902 40727
2018-05-21	Add New SMSC GT Address 85290240718, 85290240733.
2018-05-21	Add New SCP GT Address 85290240717.
2018-02-12	Add two new SMSC GT addresses 85290240715 and 85290240731.
2017-09-27	Delete PGW/SGW/SGSN-2G+3G IP 110.4.26.160/28 and GGSN IP 115.255.8.0/25, 131.166.254.0/29
2017-02-03	Add SMSC GT Address 85290240712, 852902407(23-26) and SCP GT address 8529024071(3-4)
2016-06-07	Correction of SMSC Address 852 902 16742 to 852 902 16724, 852 902 40971-40973 to 852 902 40970-40973 and 852 902 40985-40986 to 852 902 40984-40986
2016-06-07	Correction of the SMSC Address 852 902 41233-41235 to 852 921 41233-41235, 852 902 41238 to 852 921 41238 and 852 902 44051-44055 to 852 921 44051-44055
2016-05-10	Add new SMSC address
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**USSD Information**

Section ID: 14 (Optional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2016-04-01

USSD capability available	Yes
Supported phase	Phase 2

History of changes

Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**CAMEL INFO**

Section ID: 15 (Conditional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2016-04-01

gsmSSF/MSC

CAP Version supported (Inbound)	CAP Version supported (Outbound)
CAPv1 CAPv2 CAPv3	CAPv1 CAPv2 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
2016-04-01	Create a combined IR21 of HKGTC and HKGM3



Packet Data Services Information

Section ID: 16 (Conditional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2023-08-09

List of APN Operator Identifiers

APN Operator Identifier	Description	Example
mnc000.mcc454.gprs		
mnc010.mcc454.gprs		
apn.epc.mnc000.mcc454.3gppnetwork.org		

List of APN's available for testing and troubleshooting

APN WEB List

APN Credential			APN Type	ISP DNS IP address	ISP DNS IP address	Required PDU Session Type	Required PDN Type	Required PDP Type
APN	Username	Password	(primary)		(secondary)			
hkcs1	na	na	H-APN			IPv4	IPv4	IPv4
internet	na	na	H-APN			IPv4	IPv4	IPv4
mobile	na	na	H-APN			IPv4	IPv4	IPv4
lte.internet	na	na	H-APN			IPv4	IPv4	IPv4
blackberry.net	na	na	H-APN			IPv4	IPv4	IPv4
mobilea	na	na	H-APN			IPv4	IPv4	IPv4
mobileb	na	na	H-APN			IPv4	IPv4	IPv4
mobilec	na	na	H-APN			IPv4	IPv4	IPv4

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			
hkcs1	na	na	H-APN	192.168.59.51		8080	9201
mobile	na	na	H-APN	192.168.59.51		8080	9201

APN MMS List

APN	APN Credential		WAP Gateway IP address for MMS	Messaging Server URL
	Username	Password		
hkcs1	na	na	192.168.59.51	http://192.168.58.171:8002/
mobile	na	na	192.168.59.51	http://192.168.58.171:8002/
mms	na	na	192.168.111.1	http://mmsc.nwmobility.com:8002

IPv6 Connectivity Information

	IPv6 PDP Supported	IPv4v6 PDP Supported
SGSN Support	Yes	Yes
GGSN Support	Yes	Yes

VPMN Support of Local Breakout

PDU Session Type / PDN Type / PDP Type

IPv4	
IPv6	
IPv4v6	
Ethernet	
Unstructured	
Non-IP	
PPP	

List of 2G/3G QOS profiles

Profile name:	Background QoS
Traffic class:	Interactive
ARP:	2
Evolved ARP support:	Yes
Evolved ARP priority level:	2
Evolved APR preemption vulnerability list:	



Evolved APR preemption capability list:

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	
3GPP	

Multiple PDP Context Support	
Number of Primary PDP Context	2

History of changes

Date	Description
2023-08-09	Add info to fulfill new RAEX schema
2021-06-11	Update the IPv6 Connectivity Information
2021-03-09	Add 3 New APNs in WEB List
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**GRX/IPX routing for data roaming**

Section ID: 17 (Conditional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2023-08-09

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range	Network owner
	203.210.10.0/24	MNO
	203.210.11.0/24	MNO
	110.4.10.0/24	MNO
	202.4.198.0/24	MNO
	202.4.210.0/25	MNO
	202.4.197.128/25	MNO
	14.0.184.0/24	MNO
	14.0.185.0/24	MNO
	131.166.134.0/24	MNO
	131.166.136.0/24	MNO
	131.166.130.0/24	MNO
	131.166.132.0/24	MNO
	131.166.163.32/29	MNO
	131.166.165.32/29	MNO
	131.166.165.48/29	MNO
	65.72.92.0/24	MNO
	65.72.93.0/24	MNO
	65.72.94.0/24	MNO
	74.118.67.32/27	MNO
	213.144.191.56/29	MNO
	213.144.191.224/29	MNO
	213.144.191.216/30	MNO
	213.144.191.220/30	MNO
	74.118.67.0/27	MNO

ULI Additional MCC/MNC List	MCC	MNC	Network owner
	454	19	MNO
	454	18	MNO
	454	09	MNO
	454	02	MNO
	454	00	MNO
	454	16	MNO

RAI Additional MCC/MNC List	MCC	MNC	Network owner
	454	19	MNO
	454	18	MNO
	454	09	MNO
	454	02	MNO
	454	00	MNO
	454	16	MNO

List of Autonomous System Number (ASN):	ASN	Network owner
	64574	MNO
	9444	MNO
	22870	MNO
	3321	MNO
	6279	MNO
	36060	MNO

List of PMN authoritative DNS server IP addresses and names				
IP address	IPv6 address	DNS Name	Priority	Network owner
203.210.11.84				MNO
203.210.11.85				MNO
203.210.11.68				MNO
203.210.11.69				MNO

List of PMN local caching DNS server IP addresses and names				
IP address	IPv6 address	DNS Name	Priority	Network owner
203.210.11.84				MNO
203.210.11.85				MNO



203.210.11.68				MNO
203.210.11.69				MNO

List of GRX/IPX Providers		
Provider name	ASN/ASN4B	Network owner
(Preferred) PCCW Global	3491	MNO
(Preferred) PCCW Global (SAP)	64515	MNO
BBIX	59369	MNO
Syniverse	22870	MNO

History of changes

Date	Description
2023-08-09	Add GRX Provider "BBIX"
2023-02-28	new PGW IP 74.118.67.0/27
2023-01-05	Update inter-PMN IP backbone address ranges: remove 213.144.191.216/29, add 213.144.191.56/29, add 213.144.191.224/29, add 213.144.191.216/30, add 213.144.191.220/30
2021-10-04	Add inter-PMN IP backbone address range 213.144.191.216/29
2021-06-11	Add inter-PMN IP backbone address ranges 74.118.67.32/27; Add ASN 36060
2021-06-11	Remove BICS from GRX Provider.
2021-03-11	Add New IP range and ASN
2020-07-22	Add inter-PMN IP backbone address ranges: 131.166.165.48/29
2020-04-03	Add inter-PMN IP backbone address ranges: 131.166.134.0/24; 131.166.136.0/24; 131.166.130.0/24; 131.166.132.0/24; 131.166.163.32/29; 131.166.165.32/29
2020-04-03	Add ASN 22870 and 3321
2020-04-03	Add remarks for GRX provider "PCCW Global".
2019-08-30	Update the GRX Provider information of PCCW Global
2019-08-30	Remove the ASN 18101 and 3321
2019-04-30	Primary provider updated.
2018-05-21	Add RAI and ULI Additional MCC/MNC 454 16.
2018-05-21	Remove PMN authoritative and local caching DNS server IP addresses 203.210.11.129
2018-02-12	Remove 454/16 from of "RAI/ULI Additional MCC/MNC List".
2018-02-12	Remove IP 203.210.10.129 of "List of PMN authoritative/local caching DNS server IP addresses and names".
2018-02-12	Re-arrange the sequence of "List of PMN authoritative/local caching DNS server IP addresses and names".
2017-09-27	Delete the non advertising IP_address 110.4.26.160/28, 115.255.8.0/25, 131.166.254.0/29.
2017-09-27	PCCWG (merged its IPX domains with SAP's domains into a single domain and shares the same AS with SAP since Jun2017).
2017-02-03	Add authoritative and local caching DNS server IP 203.210.11.68 and 203.210.11.69.
2016-11-24	Add authoritative/local caching DNS service IP 203.210.11.84 and 203.210.11.85. Remove GRX provider "SAP".
2016-08-25	No change
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**MMS Interworking Information**

Section ID: 18 (Optional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2017-02-03

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
mmsc.hkcs1.com	110.4.26.166	300	Yes	Yes	110.4.26.166	110.4.26.161 110.4.26.162

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

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
mmsc1.hkcs1.com	110.4.26.161	300	Yes	Yes	110.4.26.166	110.4.26.161 110.4.26.162

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

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
mmsc2.hkcs1.com	110.4.26.162	300	Yes	Yes	110.4.26.166	110.4.26.161 110.4.26.162

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

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
mmsc.hkcs1.com	202.4.197.181	300	Yes	Yes	116.48.214.211 116.48.214.214 202.4.197.181 202.4.197.184	116.48.214.211 116.48.214.210 116.48.214.212 116.48.214.214 116.48.214.213 116.48.214.215 202.4.197.181 202.4.197.180 202.4.197.182 202.4.197.184 202.4.197.183 202.4.197.185

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

History of changes

Date	Description
2017-02-03	Add a new MMSC with same Domain name "mmsc.hkcs1.com" and new IP Addresses (for One-MMSC migration)
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**LTE Roaming Information**

Section ID: 20 (Optional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2023-08-09

IPX Provider Name	IPX DA Realm Used	Diameter Architecture	Date of Launch	Date of Closure
(Preferred) PCCW Global / SAP				

Primary IP address of DA	Secondary IP address of DA
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IPX Provider Name	IPX DA Realm Used	Diameter Architecture	Date of Launch	Date of Closure
BBIX				

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

EPC Realms For Roaming
epc.mnc000.mcc454.3gppnetwork.org

FQDN Diameter Edge Agent

Q&N Diameter Edge Agent		
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	true	false

Voice ITW

CSFB

Roaming CS Fallback

Roaming Retry (MTRR)

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

List of LTE QOS profiles

Profile name:	QCI
QCI Value List:	5
	6
	7
	8
	9
QOS ARP List:	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
	11
	12
	13
	14
	15
ARP Preemption Vulnerability List:	1



ARP Preemption Capability List:	1
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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

Diameter end-to-end security support	
Supported DESS phase	DESS function delegated to IPX provider
No support	

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
2023-08-09	Add IPX Provider Name "BBIX"
2022-09-14	LTE QoS profiles added
2022-09-14	LTE QoS profiles added
2022-09-13	LTE QoS profiles added
2021-06-11	Update the IPv6 Connectivity Information
2020-12-08	No new S6a Diameter connection to Syniverse IPX.
2020-04-03	Add remarks for IPX Provider Name "PCCW Global".
2019-08-30	For security reason, remove the host name of HKT DEA
2019-08-30	Update the IPX Provider Name information of PCCW Global
2019-04-30	Primary provider updated.
2018-12-14	Add IPX_Provider_Name info to fulfill new RAEX schema.
2018-12-14	Add IPX_Provider_Name info to fulfill new RAEX schema.
2018-12-13	Add IPX Provider Information
2016-10-14	After the "maintenance window" of RAEX Tools on 13-Oct-2016 17:00 to 19:00 BST, we can choose "Unsupport" for 2G/3G LTE Roaming Agreement Scenario 5 without "validate error", so, we change back to "Unsupport" for bug error.
2016-10-13	According to IR 88 V 14.0, updated 2G/3G LTE Roaming Agreement Scenario 5 to "Support"
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



VoLTE Roaming Information Section

Section ID: 26 (Conditional)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2023-08-09

VoLTE roaming architectures		
Architecture	VPMN	HPMN
S8HR	Supported	Supported

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

S8HR roaming constraints	
Lawful Interception	Yes
EPS QoS to be enforced	QCI

Emergency Calls	
VPLMN technology Strategy for emergency calls	CS Fallback
MME announce the emergency number list toward inbound roamer's UE	No

Local emergency numbers in use at the VPMN			
Number	Service	URN information	Validity
112	Police/Firemen/Ambulance	urn:service:sos	

History of changes

Date	Description
2023-08-09	Add info to fulfill new RAEX schema
2022-09-14	S8HR roaming constraints updated
2022-09-13	Add VoLTE Roaming information Section

**CONTACT INFORMATION**

Section ID: 21 (Optional, Repeating)

Section is applicable for the following TADIG codes: HKGTC

Effective date of change: 2023-01-05

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

Location		Hong Kong	
Office Time Zone in UTC		+08:00	
Office Hours	Week Day (s)	Start Time	End Time
	Mon Tue Wed Thu Fri	09:00:00	18:00:00

Main Contact for Troubleshooting (Office Hours)

Team Name	Tel.	Mobile	Fax	Email
ISOC	+85223464808	+85292125406		ENGINEERING-NS-ISOC-Mobile@pccw.com pccw-roaming_support@pccw.com

Escalation Contact for Troubleshooting

Person Name	Tel.	Mobile	Fax	Email
Matthew Au	+85228882808	+85291500047		matthew.mk.au@pccw.com

24 x 7 Troubleshooting (contact out of Office Hours)

Team Name	Tel.	Mobile	Fax	Email
ISOC	+85223464808	+85292125406		ENGINEERING-NS-ISOC-Mobile@pccw.com pccw-roaming_support@pccw.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
Tata Telecommunication			
JobTitle		Email	
Link Setup		roaming@tatacommunications.com	
Person Name	Tel.	Mobile	Fax
Tata Communications	+15148687875	+15148688996	
JobTitle		Email	
GCSC Customer Service		mobilecustomer.service@tatacommunications.com	
Person Name	Tel.	Mobile	Fax
CITIC Telecom International Ltd	+85223778877		
JobTitle		Email	
NOC			
Person Name	Tel.	Mobile	Fax
CITIC Telecom International Ltd	+85234236414	+85292291616 +85297671616	
JobTitle		Email	
NOC Manager		nocmgr@citictel.com	
Person Name	Tel.	Mobile	Fax
CITIC Telecom International Ltd	+85234236471		
JobTitle		Email	
Network Operation Director		nosdir@citictel.com	
Person Name	Tel.	Mobile	Fax
Telstra International Ms Helen Wong	+85229834171		
JobTitle		Email	
Manager			

Roaming Coordinator

Person Name	Tel.	Mobile	Fax
Ms. Vince Lam	+85228830428	+85266204295	+85229685177
JobTitle		Email	
Senior Manager		vince.sk.lam@hkcsf.com	

IREG Tests

Person Name	Tel.	Mobile	Fax
Kidd Poon	+85227095742		
JobTitle		Email	
Assistant Engineer		pccw-roaming_support@pccw.com	
Person Name	Tel.	Mobile	Fax
Wilson Lau	+85228889365		
JobTitle		Email	



Engineer	pccw-roaming_support@pccw.com
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TADIG Tests

Person Name	Tel.	Mobile	Fax
Mr. Andy Liu	+85228883745	+85292304519	
JobTitle	Email		
Assistant Vice President	tadig@pccw.com		

CAMEL Tests

Person Name	Tel.	Mobile	Fax
Kidd Poon	+85227095742		
JobTitle	Email		
Assistant Engineer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Wilson Lau	+85228889365		
JobTitle	Email		
Engineer	pccw-roaming_support@pccw.com		

Contact Person(s) in PMN for GRX connectivity

Person Name	Tel.	Mobile	Fax
Ricky Wong	+85228884336		
JobTitle	Email		
Senior Technical Officer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Kidd Poon	+85227095742		
JobTitle	Email		
Assistant Engineer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Wilson Lau	+85228889365		
JobTitle	Email		
Engineer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Mr. David Wong		+85263848221	
JobTitle	Email		
GPRS Support	david.h.wong@pccw.com		

IR21 Distribution Email Address

Email
gsm.roaming@hkcsf.com

History of changes

Date	Description
2023-01-05	update contacts
2022-05-26	update contacts
2021-06-11	Update IREG testing, CAMEL testing, GRX connectivity at PMN, and Other contacts.
2017-09-25	Contact List updated. Remove the contact of Vivian Li.
2016-11-30	update the email address of IR21 distribution and contact person of TADIG
2016-11-24	Contact list update
2016-05-10	Modify IR21 Distribution Email address List
2016-04-29	Create a Combined IR21 of HKGTC and HKGM3
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**SECTIONS NOT IN USE**

TADIG Code	Section ID	Section Name
HKGTC	6	Domestic SCCP Gateway
HKGTC	9	Test Numbers Information
HKGTC	12	MAP Inter Operator SMS Enhancement
HKGTC	19	WLAN Information
HKGTC	22	Hosted Networks
HKGTC	23	M2M Roaming Information
HKGTC	27	LPWA Roaming Information Section



NETWORK

Section ID: 2 (Mandatory, Repeating)

Section is applicable for the following TADIG code: HKGM3

TADIG code:	HKGM3	
Technology:	Frequency list:	Coverage:
2G-GSM	GSM 900, DCS 1800	
3G-UTRA/FDD	1 - IMT 2.1 GHz, 8 - 900 MHz	
3G-UTRA/TDD	Unsupported	
4G-E-UTRAN	8 - 900 MHz, 3 - DCS 1800, 7 - 2.6 GHz	
4G-E-UTRAN-MIoT-LTE-M	Unsupported	
4G-E-UTRAN-MIoT-NB-IoT	Unsupported	
MIoT-NB-IoT deployment mode	Unsupported	
EN-DC band combinations	5G-NSA: n1 (with LTE900 anchor ctrl), n78 (with LTE1800 anchor ctrl), n79 (with LTE1800 anchor ctrl), n257	
5G NR	n1 - FDD 2100, n78 - TDD 3500, n79 - TDD 4700, n257 - 28 GHz	

Service status and planned closure			
	Support	Planned partial closure	Planned full closure
2G	Supported		
3G	Supported		
4G	Supported		
MIoT-LTE-M	Unsupported		
MIoT-NB-IOT	Unsupported		
VoLTE	Supported		
5G-NG	Supported		



ROUTING INFORMATION

Section ID: 4 (Mandatory)

Section is applicable for the following TADIG code: HKGM3

Effective date of change: 2023-08-09

CCITT E.164 Number series	Country Code (CC)	National Destination Code (NDC)	SN Range Start	SN Range Stop	Primary International DPC	Secondary International DPC	Network owner	Location
MSISDN number ranges (s)								
	852	514	5	8			MNO	
	852	518					MNO	
	852	523	0	3			MNO	
	852	536					MNO	
	852	541					MNO	
	852	558					MNO	
	852	590	0	5			MNO	
	852	594					MNO	
	852	612					MNO	
	852	618					MNO	
	852	625					MNO	
	852	630					MNO	
	852	638					MNO	
	852	644					MNO	
	852	649					MNO	
	852	651					MNO	
	852	660					MNO	
	852	662					MNO	
	852	669					MNO	
	852	680					MNO	
	852	692					MNO	
	852	907					MNO	
	852	923					MNO	
	852	927					MNO	
	852	952					MNO	
	852	964					MNO	
	852	969					MNO	
	852	977					MNO	
	852	980					MNO	
Network Nodes Global Title Number Range(s)								
	852	923					MNO	
	852	902					MNO	
	852	921					MNO	
MSRN Number Range(s)								
	852	638	04300	04999				
	852	638	49500	49999				
	852	923	40000	49999				
	852	923	90000	99999				
	852	616	45000	46999				
	852	616	49000	49999				
	852	639	45000	45999				



MSRN Number Range(s)							
	852	921	49000	49999			
	852	940	70000	73999			
	852	902	40460	40499			

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	454	19

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	852	923

Does Number Portability apply ?	Yes
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Is 15 Digit MSISDN Supported ?	No
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USIM SIM Header	8985219, 8985216
-----------------	------------------

E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	852	42	2	9
	852	43	3	9
	852	44	0	9
	852	45	1	9
	852	46	0	9
	852	47	0	9
	852	51	0	9
	852	52	0	9
	852	53	0	9
	852	54	0	9
	852	55	0	9
	852	56	0	9
	852	57	0	9
	852	59	0	9
	852	60	1	9
	852	61	0	9
	852	62	0	9
	852	63	0	9
	852	64	0	9
	852	65	0	9
	852	66	0	9
	852	67	0	9
	852	68	0	9
	852	69	0	9
	852	70	1	8
	852	71	4	5
	852	71	7	8
	852	72	4	6
	852	73	4	6
	852	82	4	5
	852	82	8	9
	852	83	5	6
	852	83	8	9
	852	84	0	9
	852	85	3	9
	852	86	0	9
	852	87	0	9
	852	89	0	9
	852	90	1	9
	852	91	0	0
	852	91	2	9
	852	92	0	9
	852	93	0	9
	852	94	0	9
	852	95	0	9
	852	96	0	9
	852	97	0	9



E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	852	98	0	9
	852	404	0	9
	852	406	0	9
	852	409	3	9
	852	420	0	9
	852	481	0	9
	852	482	1	9
	852	486	0	9
	852	489	0	9
	852	492	3	9
	852	495	2	9
	852	498	0	9
	852	710	4	7
	852	710	9	9
	852	711	4	5
	852	711	8	8
	852	712	0	9
	852	713	2	2
	852	713	4	9
	852	716	0	8
	852	719	2	2
	852	719	4	5
	852	719	7	9
	852	721	0	0
	852	721	2	7
	852	721	9	9
	852	727	0	1
	852	727	3	6
	852	737	4	5
	852	737	7	8
	852	739	0	1
	852	739	4	4
	852	739	6	6
	852	815	0	9
	852	818	0	9
	852	827	5	9
	852	831	0	9
	852	832	5	8
	852	837	1	9
	852	850	0	1

Additional Information

IMSI translation: 45400->852902; 45410->852921; 45419->852923. Additional access no: +852171ABC/ABCD; +852178ABC/ABCD; +852179ABC/ABCD; +852176ABCD. IMSI 45400&45419 use single HSS realm "epc.mnc000.mcc454.3gppnetwork.org". HKT as VPLMN uses 1 single core network, MME realm "epc.mnc000.mcc454.3gppnetwork.org". HKT use multiple MCC-MNC in radio broadcast, they are 45400/45402/45416/45418/45419. If HPLMN uses ULI/RAI for charging, pls setup all MCC-MNCs.

History of changes

Date	Description
2023-08-09	Add info to fulfill new RAEX schema
2023-08-09	Additional info being simplified to fulfill new RAEX schema
2020-07-22	Add item "i" under "DIAMETER INFORMATION" in "Additional Information" to describe the realm of HKT.
2018-05-21	Remove MSISDN Range 852 4647
2018-02-13	Modify the wording of "Additional Information".
2018-02-13	Remove MCC MNC 454 16 to MGT (CC) MGT (NC) 852 923 from "Networks" of "Additional Information".
2018-02-13	Remove the wording HKGMC/454 16 and 45416 from segment "a" of "Additional Information [1] GENERAL INFORMATION".
2018-02-13	Remove 45416 from "segment "c" of "Additional Information - [2] PACKET DATA SERVICES INFORMATION".
2018-02-13	HKT has migrated all customers with HKGMC/45416 IMSI level to either HKGTC/45400 or HKGM3/45419. HKGMC/45416 will no longer be used for our outbound roaming, effective on 01st January 2018.
2018-02-13	Remove "16 (TADIG Code: HKGMC)" from "Networks" of "Additional Information" for MCC=454 MNC=16.
2017-09-27	Add new MSISDN range 852 4647



Date	Description
2017-09-27	Add new MNP number ranges 852 4x/7x/8x
2017-05-31	Modify the "Additional Information:PLMN used in Radio Broadcast: (essential if HPLMN analyze them during CAMEL PSI, IDP)"
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



INTERNATIONAL SCCP GATEWAY

Section ID: 5 (Optional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2016-04-01

International SCCP carrier list	
SCCP carrier name:	SCCP Carrier
Connectivity information:	Primary
DPC info:	
Signature:	STP3
Type:	ISC
International DPC:	4.178.3
Comments:	
DPC info:	
Signature:	STP4
Type:	ISC
International DPC:	4.177.1
Comments:	
DPC info:	
Signature:	STP5
Type:	ISC
International DPC:	4.176.4
Comments:	
DPC info:	
Signature:	STP6
Type:	ISC
International DPC:	4.179.0
Comments:	
SCCP carrier name:	SCCP Carrier
Connectivity information:	Primary
DPC info:	
Signature:	VPD
Type:	STP/SCCP
International DPC:	3.4.1
Comments:	3.4.1 is the alias point code used for Montreal STP (3.6.0) and Toronto STP (3.5.0)
DPC info:	
Signature:	VPP
Type:	STP/SCCP
International DPC:	3.10.7
Comments:	3.10.7 is the alias point code used for London STP (3.11.0) and Frankfurt STP (3.11.1)



DPC info:	
Signature:	NDI
Type:	STP/SCCP
International DPC:	4.8.1
Comments:	4.8.1 is the alias point code used for Mumbai STP (4.7.5) and New Delhi STP (4.7.6)

SCCP carrier name:	SCCP Carrier
Connectivity information:	Primary

DPC info:	
Signature:	Electra
Type:	ISC
International DPC:	4.108.0
Comments:	

DPC info:	
Signature:	Hermes
Type:	ISC
International DPC:	4.108.1
Comments:	

History of changes

Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



SCCP Protocol available at PMN for connection for International SS7 Roaming

Section ID: 7 (Optional)
Section is applicable for the following TADIG codes: HKGM3
Effective date of change: 2016-04-01

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

History of changes

Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**SUBSCRIBER IDENTITY AUTHENTICATION**

Section ID: 8 (Optional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2016-04-01

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
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**MOBILE APPLICATION PART (MAP)**

Section ID: 10 (Optional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2016-04-01

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	
shortMsgMT-Relay (called shortMsgRelay in v1)	MAPv2	-	MAPv2	
shortMsgMO-Relay (called shortMsgRelay in v1)	MAPv2	-	MAPv2	
ss-InvocationNotification	-	N/A	-	
subscriberInfoEnquiry	MAPv3	-	MAPv3	
gprsLocationUpdate	N/A	MAPv3	MAPv3	
locationCancellation	MAPv3	MAPv3	MAPv3	
msPurging	MAPv2	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	-	N/A	-	
authenticationFailureReport	MAPv3	MAPv3	MAPv3	
imsiRetrieval	MAPv3	N/A	MAPv3	
gprsNotifyContext	N/A	-	-	
gprsLocationInfoRetrieval	N/A	-	-	
faillureReport	N/A	-	-	
secureTransportHandling	-	-	-	

History of changes

Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**MAP Inter Operator SMS Enhancement**

Section ID: 12 (Optional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2016-04-01

Inter - Operator SMS Enhancement

Application context name	Current version in			Comments
	SMS - IWMSC	SMS - GMSC	HLR	
shortMsgGateway	N/A	MAPv2	MAPv2	
shortMsgAlert	MAPv2	N/A	MAPv2	

History of changes

Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



NETWORK ELEMENTS INFORMATION

Section ID: 13 (Optional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2023-02-28

Node type	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	UTC offset
HLR	852 902 40000 / 40999				+08:00
HSS	852 902 40000 / 40999				+08:00
MSC/VLR	852 923 94627 / 94627				+08:00
MSC/VLR-2G+3G	852 902 40000 / 40999				+08:00
PGW		131.166.163.32/29			+08:00
PGW		131.166.165.32/29			+08:00
PGW		131.166.165.48/29			+08:00
PGW		65.72.92.0/24			+08:00
PGW		65.72.93.0/24			+08:00
PGW		65.72.94.0/24			+08:00
PGW		74.118.67.0/27			+08:00
PGW		131.166.130.0/24			+08:00
PGW		131.166.132.0/24			+08:00
PGW		131.166.134.0/24			+08:00
PGW		131.166.136.0/24			+08:00
PGW		213.144.191.56/29			+08:00
PGW		213.144.191.224/29			+08:00
PGW		213.144.191.216/30			+08:00
PGW		213.144.191.220/30			+08:00
PGW		74.118.67.32/27			+08:00
SCP	852 902 40524 / 40524				+08:00
SCP	852 902 40600 / 40600				+08:00
SCP	852 902 40713 / 40714				+08:00
SCP	852 902 40717 / 40717				+08:00
SGSN-2G+3G	852 902 40000 / 40999	203.210.11.0/24			+08:00
SGSN-2G+3G	852 902 40000 / 40999	203.210.10.0/24			+08:00
SMSC	852 902 40515 / 40515				+08:00
SMSC	852 902 40561 / 40561				+08:00
SMSC	852 902 40712 / 40712				+08:00
SMSC	852 902 40715 / 40715				+08:00
SMSC	852 902 40718 / 40718				+08:00
SMSC	852 902 40723 / 40727				+08:00
SMSC	852 902 40731 / 40731				+00:00
SMSC	852 902 40733 / 40733				+08:00
SMSC	852 902 40960 / 40969				+08:00
SMSC	852 902 40971 / 40973				+08:00
SMSC	852 902 40980 / 40980				+08:00
SMSC	852 902 40981 / 40982				+08:00
SMSC	852 902 40983 / 40983				+08:00
SMSC	852 902 40985 / 40986				+08:00
SMSC	852 921 00000 / 99999				+08:00
SMSC	852 923 47934 / 47934				+08:00
SMSC	852 923 47948 / 47948				+08:00
SMSC	852 923 47949 / 47949				+08:00
SMSC	852 923 47960 / 47960				+08:00
SMSC	852 923 47976 / 47976				+08:00
SMSC	852 923 47977 / 47977				+08:00
SMSC	852 923 47983 / 47983				+08:00
SMSC	852 923 47990 / 47990				+08:00
SMSC	852 923 47999 / 47999				+08:00
SMSC	852 923 94602 / 94602				+08:00
SMSC	852 923 94679 / 94679				+08:00
SMSC	852 923 94680 / 94680				+08:00
SMSC	852 923 94689 / 94689				+08:00
SMSC	852 923 94696 / 94696				+08:00
SMSC	852 923 94697 / 94697				+08:00
SMSC	852 923 94699 / 94699				+08:00
SMSC	852 923 95781 / 95781				+08:00
SMSC	852 923 95782 / 95782				+08:00
SMSC	852 923 95783 / 95783				+08:00
SMSC	852 923 95799 / 95799				+08:00

**History of changes**

Date	Description
2023-02-28	new PGW IP 74.118.67.0/27, 74.118.67.32/27, 131.166.130.0/24, 131.166.132.0/24, 131.166.134.0/24, 131.166.136.0/24, 213.144.191.56/29, 213.144.191.224/29, 213.144.191.216/30, 213.144.191.220/30
2021-10-04	Add SMSC 85290240515; Add SCP 85290240600
2021-03-11	Add New information of SCP/SMSC/PGW
2020-07-22	Add PGW 131.166.165.48/29
2020-04-03	Add PGW 131.166.163.32/29 and PGW 131.166.165.32/29
2020-04-03	Add MSC/VLR +85292394627
2018-12-13	Remove those obsoleted network elements
2018-12-12	Add new SMSC GT 852 902 40727
2018-05-21	Add New SMSC GT Address 85290240718, 85290240733.
2018-05-21	Add New SCP GT Address 85290240717.
2018-02-12	Add two new SMSC GT addresses 85290240715 and 85290240731.
2017-02-03	Add SMSC GT Address 85290240712, 852902407(23-26) and SCP GT address 8529024071(3-4)
2016-05-10	Add new SMSC address
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**USSD Information**

Section ID: 14 (Optional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2016-04-01

USSD capability available	Yes
Supported phase	Phase 2

History of changes

Date	Description
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**CAMEL INFO**

Section ID: 15 (Conditional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2016-04-01

gsmSSF/MSC	
CAP Version supported (Inbound)	CAP Version supported (Outbound)
CAPv1 CAPv2 CAPv3	CAPv1 CAPv2 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
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



Packet Data Services Information

Section ID: 16 (Conditional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2023-08-09

List of APN Operator Identifiers

APN Operator Identifier	Description	Example
mnc019.mcc454.gprs	For 3G subscriber	
apn.epc.mnc019.mcc454.3gppnetwork.org		

List of APN's available for testing and troubleshooting

APN WEB List

APN Credential			APN Type	ISP DNS IP address	ISP DNS IP address	Required PDU Session Type	Required PDN Type	Required PDP Type
APN	Username	Password	(primary)		(secondary)			
pccw	na	na	H-APN			IPv4	IPv4	IPv4
blackberry.net	na	na	H-APN			IPv4	IPv4	IPv4
internet	na	na	H-APN			IPv4	IPv4	IPv4
mobile	na	na	H-APN			IPv4	IPv4	IPv4
mobilea	na	na	H-APN			IPv4	IPv4	IPv4
mobileb	na	na	H-APN			IPv4	IPv4	IPv4
mobilec	na	na	H-APN			IPv4	IPv4	IPv4

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			
pccw	na	na	H-APN	10.140.14.10	http://m.hkcs1.com		
pccw	na	na	H-APN	10.131.2.8	http://m.hkcs1.com	8080	
mobile	na	na	H-APN	10.140.14.10	http://m.hkcs1.com		
mobile	na	na	H-APN	10.131.2.8	http://m.hkcs1.com	8080	

APN MMS List

APN	APN Credential		WAP Gateway IP address for MMS	Messaging Server URL
	Username	Password		
pccw	na	na	10.140.14.10	http://mms.hkcs1.com:8080
pccw	na	na	10.131.2.8	http://mms.hkcs1.com:8080
mobile	na	na	10.140.14.10	http://mms.hkcs1.com:8080
mobile	na	na	10.131.2.8	http://mms.hkcs1.com:8080

IPv6 Connectivity Information

	IPv6 PDP Supported	IPv4v6 PDP Supported
SGSN Support	Yes	Yes
GGSN Support	Yes	Yes

VPMN Support of Local Breakout

PDU Session Type / PDN Type / PDP Type	
IPv4	
IPv6	
IPv4v6	
Ethernet	
Unstructured	
Non-IP	
PPP	

List of 2G/3G QOS profiles

Profile name:	Default
Traffic class:	Interactive
ARP:	2
Evolved ARP support:	Yes
Evolved ARP priority level:	6
Evolved ARP preemption vulnerability list:	



Evolved APR preemption capability list:

GTP Version	
SGSN	GTPv1
GGSN	GTPv1

List of Data Service supported

2G Data Services	Multislot Class Capability
GPRS	4
EDGE	

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

Multiple PDP Context Support	
Number of Primary PDP Context	2

History of changes

Date	Description
2023-08-09	Add info to fulfill new RAEX schema
2021-06-11	Update the IPv6 Connectivity Information
2021-03-09	Add 3 New APNs in WEB List
2018-02-12	Delete "mnc016.mcc454.gprs & For 2G subscriber" from "List of APN Operator Identifiers".
2018-02-12	Delete the obsoleted APN from "APN" WEB List", only remain the APN pccw/blackberry.net/internet/mobile.
2018-02-12	Delete obsoleted APN from "APN WAP List", remain APN pccw/mobile.
2018-02-12	Delete obsoleted APN from "APN MMS List", remain APN pccw/mobile.
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3.

**GRX/IPX routing for data roaming**

Section ID: 17 (Conditional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2023-08-09

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range	Network owner
	202.4.197.128/25	MNO
	202.4.198.0/24	MNO
	202.4.210.0/25	MNO
	203.210.10.0/24	MNO
	203.210.11.0/24	MNO
	110.4.10.0/24	MNO
	14.0.184.0/24	MNO
	14.0.185.0/24	MNO
	131.166.134.0/24	MNO
	131.166.136.0/24	MNO
	131.166.130.0/24	MNO
	131.166.132.0/24	MNO
	131.166.163.32/29	MNO
	131.166.165.32/29	MNO
	131.166.165.48/29	MNO
	65.72.92.0/24	MNO
	65.72.93.0/24	MNO
	65.72.94.0/24	MNO
	213.144.191.56/29	MNO
	213.144.191.224/29	MNO
	213.144.191.216/30	MNO
	213.144.191.220/30	MNO
	74.118.67.0/27	MNO
	74.118.67.32/27	MNO

ULI Additional MCC/MNC List	MCC	MNC	Network owner
	454	19	MNO
	454	18	MNO
	454	09	MNO
	454	02	MNO
	454	00	MNO
	454	16	MNO

RAI Additional MCC/MNC List	MCC	MNC	Network owner
	454	19	MNO
	454	18	MNO
	454	09	MNO
	454	02	MNO
	454	00	MNO
	454	16	MNO

List of Autonomous System Number (ASN):	ASN	Network owner
	9444	MNO
	64574	MNO
	22870	MNO
	3321	MNO
	6279	MNO

List of PMN authoritative DNS server IP addresses and names				
IP address	IPv6 address	DNS Name	Priority	Network owner
203.210.11.84		TPC-DNS11.mnc019.mcc454.gprs		MNO
203.210.11.84		TPC-DNS11.epc.mnc019.mcc454.3gppnetwork.org		MNO
203.210.11.85		TPC-DNS12.mnc019.mcc454.gprs		MNO
203.210.11.85		TPC-DNS12.epc.mnc019.mcc454.3gppnetwork.org		MNO
203.210.11.68		KSG-DNS13.mnc019.mcc454.gprs		MNO
203.210.11.68		KSG-DNS13.epc.mnc019.mcc454.3gppnetwork.org		MNO
203.210.11.69		KSG-DNS14.mnc019.mcc454.gprs		MNO



203.210.11.69		KSG-DNS14.epc.mnc019.mcc454.3gppnetwork.org		MNO
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List of PMN local caching DNS server IP addresses and names

IP address	IPv6 address	DNS Name	Priority	Network owner
203.210.11.84		TPC-DNS11.mnc019.mcc454.gprs		MNO
203.210.11.84		TPC-DNS11.epc.mnc019.mcc454.3gppnetwork.org		MNO
203.210.11.85		TPC-DNS12.mnc019.mcc454.gprs		MNO
203.210.11.85		TPC-DNS12.epc.mnc019.mcc454.3gppnetwork.org		MNO
203.210.11.68		KSG-DNS13.mnc019.mcc454.gprs		MNO
203.210.11.68		KSG-DNS13.epc.mnc019.mcc454.3gppnetwork.org		MNO
203.210.11.69		KSG-DNS14.mnc019.mcc454.gprs		MNO
203.210.11.69		KSG-DNS14.epc.mnc019.mcc454.3gppnetwork.org		MNO

List of GRX/IPX Providers

Provider name	ASN/ASN4B	Network owner
(Preferred) PCCW Global	3491	MNO
(Preferred) PCCW Global (SAP)	64515	MNO
BBIX	59369	MNO
Syniverse	22870	MNO

History of changes

Date	Description
2023-08-09	Add GRX Provider "BBIX"
2023-02-28	new PGW IP 74.118.67.0/27
2023-02-28	new PGW IP 74.118.67.32/27
2023-01-05	Update inter-PMN IP backbone address ranges: remove 213.144.191.216/29, add 213.144.191.56/29, add 213.144.191.224/29, add 213.144.191.216/30, add 213.144.191.220/30
2021-10-04	Add inter-PMN IP backbone address range 213.144.191.216/29
2021-06-11	Remove BICS from GRX Provider.
2021-03-11	Add New IP range and ASN
2020-07-22	Add inter-PMN IP backbone address ranges: 131.166.165.48/29
2020-04-03	Add inter-PMN IP backbone address ranges: 131.166.134.0/24; 131.166.136.0/24; 131.166.130.0/24; 131.166.132.0/24; 131.166.163.32/29; 131.166.165.32/29
2020-04-03	Add ASN 22870 and 3321
2020-04-03	Add remarks for GRX provider "PCCW Global".
2019-08-30	Update the GRX Provider information of PCCW Global
2019-08-30	Remove the ASN 18101 and 3321
2019-04-30	Primary provider updated.
2018-05-21	Add RAI and ULI Additional MCC/MNC 454 16.
2018-05-21	Remove PMN authoritative and local caching DNS server IP addresses "202.4.198.36" & "203.210.11.129".
2018-02-12	Remove 454/16 from of "RAI/ULI Additional MCC/MNC List".
2018-02-12	Remove IP/name 202.4.210.32/YTG-4GGnDNS-2.epc.MNC019.MCC454.3gppnetwork.org, 202.4.210.32/YTG-4GGnDNS-2.MNC019.MCC454.GPRS, 203.210.10.129/ZDNS-Ex1. mnc016.mcc454.gprs of "List of PMN authoritative/local caching DNS server IP addresses and names".
2018-02-12	Remove IP/name 202.4.210.32/YTG-4GGnDNS-2.MNC016.MCC454.GPRS, 203.210.10.129/ZDNS-Ex1.epc.mnc019.mcc454.3gppnetwork.org, 203.210.11.84/TPC-DNS11.mnc016.mcc454.gprs, of "List of PMN authoritative/local caching DNS server IP addresses and names".
2018-02-12	Remove IP/name 203.210.11.85/TPC-DNS12.mnc016.mcc454.gprs, 203.210.11.68/KSG-DNS13.mnc016.mcc454.gprs, 203.210.11.69/KSG-DNS14.mnc016.mcc454.gprs of "List of PMN authoritative/local caching DNS server IP addresses and names".
2018-02-12	Re-arrange the sequence of "List of PMN authoritative/local caching DNS server IP addresses and names".



Date	Description
2017-09-27	Delete the non advertising IP_address 110.4.26.160/28, 115.255.8.0/25, 131.166.254.0/29
2017-09-27	PCCWG (merged its IPX domains with SAP's domains into a single domain and shares the same AS with SAP since Jun2017).
2017-05-31	Remove the "IP Address 202.4.210.31 and DNS Name= YTG-4GGnDNS-1.epc.MNC019.MCC454.3gppnetwork.org" of the "List of PMN authoritative DNS server IP addresses and name" and "List of PMN local caching DNS server IP address and names"
2017-02-03	Add authoritative and local caching DNS server IP 203.210.11.68 and 203.210.11.69
2016-11-24	Add authoritative/local caching DNS server IP 203.210.11.84 and 203.210.11.85. Remove GRX provider "SAP".
2016-08-25	No change
2016-05-10	Add new DNS sever IP address, DNS name
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**MMS Interworking Information**

Section ID: 18 (Optional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2017-02-03

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
3gmms.sunday.com	202.4.197.146	300	Yes	Yes	202.4.197.146	202.4.197.146

List of MMS IW Hub Provider

MMS IW Hub Provider Name	GT address(es)
SAP	
Aicent	

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
mmsc.hkcs1.com	202.4.197.181	300	Yes	Yes	116.48.214.211 116.48.214.214 202.4.197.181 202.4.197.184	116.48.214.211 116.48.214.210 116.48.214.212 116.48.214.214 202.4.197.181 202.4.197.180 202.4.197.182 202.4.197.184 202.4.197.183 202.4.197.185 116.48.214.213 116.48.214.215

List of MMS IW Hub Provider

MMS IW Hub Provider Name	GT address(es)
Aicent	

History of changes

Date	Description
2017-02-03	Add a new MMSC with Domain name "mmsc.hkcs1.com" and new IP Addresses
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**LTE Roaming Information**

Section ID: 20 (Optional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2023-08-09

IPX Provider Name	IPX DA Realm Used	Diameter Architecture	Date of Launch	Date of Closure
(Preferred) PCCW Global / SAP				

Primary IP address of DA	Secondary IP address of DA
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IPX Provider Name	IPX DA Realm Used	Diameter Architecture	Date of Launch	Date of Closure
BBIX				

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

EPC Realms For Roaming
epc.mnc019.mcc454.3gppnetwork.org

FQDN Diameter Edge Agent

Q&N Diameter Edge Agent		
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	true	false

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

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**Diameter end-to-end security support**

Supported DESS phase	DESS function delegated to IPX provider
No support	

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
2023-08-09	Add IPX Provider Name "BBIX"
2021-06-11	Update the IPv6 Connectivity Information
2020-12-08	No new S6a Diameter connection to Syniverse IPX.
2020-04-03	Add remarks for IPX Provider Name "PCCW Global".
2019-08-30	For security reason, remove the host name of HKT DEA
2019-08-30	Update the IPX Provider Name information of PCCW Global
2019-04-30	Primary provider updated.
2018-12-14	Add IPX_Provider_Name info to fulfill new RAEX schema.
2018-12-13	Add IPX Provider Information
2016-10-14	After the "maintenance window" of RAEX Tools on 13-Oct-2016 17:00 to 19:00 BST, we can choose "Unsupport" for 2G/3G LTE Roaming Agreement Scenario 5 without "validate error", so, we change back to "Unsupport" for bug error.
2016-10-13	According to IR 88 V 14.0, updated 2G/3G LTE Roaming Agreement Scenario 5 to "Support"
2016-04-29	Modify the 2G/3G/LTE Roaming Agreement
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3



VoLTE Roaming Information Section

Section ID: 26 (Conditional)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2023-08-09

VoLTE roaming architectures		
Architecture	VPMN	HPMN
S8HR	Supported	Supported

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

S8HR roaming constraints	
Lawful Interception	Yes
EPS QoS to be enforced	QCI

Emergency Calls	
VPLMN technology Strategy for emergency calls	CS Fallback
MME announce the emergency number list toward inbound roamer's UE	No

Local emergency numbers in use at the VPMN			
Number	Service	URN information	Validity
112	Police/Firemen/Ambulance	urn:service:sos	

History of changes

Date	Description
2023-08-09	Add info to fulfill new RAEX schema

**CONTACT INFORMATION**

Section ID: 21 (Optional, Repeating)

Section is applicable for the following TADIG codes: HKGM3

Effective date of change: 2023-01-05

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

Location		Hong Kong	
Office Time Zone in UTC		+08:00	
Office Hours	Week Day (s)	Start Time	End Time
	Mon Tue Wed Thu Fri	09:00:00	18:00:00

Main Contact for Troubleshooting (Office Hours)

Team Name	Tel.	Mobile	Fax	Email
ISOC	+85223464808	+85292125406		ENGINEERING-NS-ISOC-Mobile@pccw.com pccw-roaming_support@pccw.com

Escalation Contact for Troubleshooting

Person Name	Tel.	Mobile	Fax	Email
Matthew Au	+85228882808	+85291500047		matthew.mk.au@pccw.com

24 x 7 Troubleshooting (contact out of Office Hours)

Team Name	Tel.	Mobile	Fax	Email
ISOC	+85223464808	+85292125406		ENGINEERING-NS-ISOC-Mobile@pccw.com pccw-roaming_support@pccw.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
Mr. Harris CM Tang	+85229833553		+85225987699
JobTitle	Email		
Service Provisioning Department (Telstra)	harris.tang@team.telstra.com		
Person Name	Tel.	Mobile	Fax
Customer service center CITIC	+85223778899		
JobTitle	Email		
Customer service center	roaming@citic1616.com		
Person Name	Tel.	Mobile	Fax
NOC Center (7x24 hrs) CITIC	+85223778877		
JobTitle	Email		
NOC Center	noc@citic1616.com		
Person Name	Tel.	Mobile	Fax
Mr. Ricky Poon	+85234236405		
JobTitle	Email		
Support (CITIC)	rickypoon@citic1616.com		
Person Name	Tel.	Mobile	Fax
Link Setup TATA			
JobTitle	Email		
Link Setup	roaming@tatacommunications.com		
Person Name	Tel.	Mobile	Fax
GCSC Customer Service TATA	+15148687875	+15148688996	
JobTitle	Email		
GCSC Customer Service	mobilecustomer.service@tatacommunications.com		

Roaming Coordinator

Person Name	Tel.	Mobile	Fax
Ms. Vince Lam	+85228830428	+85266204295	+85229685177
JobTitle	Email		
Senior Manager	vince.sk.lam@hkcs.com		

IREG Tests

Person Name	Tel.	Mobile	Fax
Kidd Poon	+85227095742		
JobTitle	Email		
Assistant Engineer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Wilson Lau	+85228889365		
JobTitle	Email		



Engineer	pccw-roaming_support@pccw.com
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TADIG Tests

Person Name	Tel.	Mobile	Fax
Mr. Andy Liu	+85228883745	+85292304519	
JobTitle	Email		
Assistant Vice President	tadig@pccw.com		

CAMEL Tests

Person Name	Tel.	Mobile	Fax
Kidd Poon	+85227095742		
JobTitle	Email		
Assistant Engineer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Wilson Lau	+85228889365		
JobTitle	Email		
Engineer	pccw-roaming_support@pccw.com		

Contact Person(s) in PMN for GRX connectivity

Person Name	Tel.	Mobile	Fax
Ricky Wong	+85228884336		
JobTitle	Email		
Senior Technical Officer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Kidd Poon	+85227095742		
JobTitle	Email		
Assistant Engineer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Wilson Lau	+85228889365		
JobTitle	Email		
Engineer	pccw-roaming_support@pccw.com		
Person Name	Tel.	Mobile	Fax
Mr. David Wong		+85263848221	
JobTitle	Email		
GPRS Support	david.h.wong@pccw.com		

IR21 Distribution Email Address

Email
gsm.roaming@hkcs.com

History of changes

Date	Description
2023-01-05	update contacts
2022-05-26	update contact
2021-06-11	Update IREG testing, CAMEL testing, GRX connectivity at PMN, and Other contacts.
2017-09-25	Contact List updated. Remove the contact of Vivian Li.
2016-11-30	Update the email address of IR21 distribution
2016-11-24	Contact list update
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3
2016-04-01	Create a Combined IR21 of HKGTC and HKGM3

**SECTIONS NOT IN USE**

TADIG Code	Section ID	Section Name
HKGM3	6	Domestic SCCP Gateway
HKGM3	9	Test Numbers Information
HKGM3	19	WLAN Information
HKGM3	22	Hosted Networks
HKGM3	23	M2M Roaming Information
HKGM3	27	LPWA Roaming Information Section