

GSMA Roaming Database
IR.21 Data



RAEX IR.21 Information

Creation date:	2022-08-18
Creation time:	04:58:00+02:00
File type:	IR.21
Sender TADIG:	JPNKI
Publish Comment:	08-18: update contacts 06-17: Add 5G-SA APN = kwx25gs.au-net.ne.jp 04-27: Add QCI=8,9
TADIG-GEN schema version:	2.4
RAEX-IR.21 schema version:	15.0



ORGANISATION INFORMATION

Section ID: 1 (Mandatory)

Organisation name:	KDDI Corporation
Country initials:	JPN

History of changes

TADIG Code	Section ID	Section	Date	Description
JPNKD	21	Contact Information	2022-08-18	update contacts
JPNKD	16	Packet Data Service Information	2022-06-17	Add 5G-SA APN = kwx25gs.au-net.ne.jp
JPNKD	20	LTE Roaming Information	2022-04-27	Add QCI=8,9
JPNKD	4	Routing Information	2022-03-30	Delete Additional Information 3. MCC-MNC: 440-54 for IW-SMS MAP signaling
JPNKD	13	Network Elements Information	2022-03-30	Add HLR and SMSC GT Numbers for JPNKD/KI 440-50/51 GSM NW and JPNKS 440-54 SA NW
JPNKI	4	Routing Information	2022-03-30	Delete Additional Information 3. MCC-MNC: 440-54 for IW-SMS MAP signaling
JPNKI	17	IP Roaming/Networking Information	2022-03-30	Copy same content from JPNKD as per requested
JPNKS	4	Routing Information	2022-03-30	Delete Additional Information 3. MCC-MNC: 440-54 for IW-SMS MAP signaling
JPNKS	17	IP Roaming/Networking Information	2022-03-30	Copy same content from JPNKD as per requested
JPNKD	4	Routing Information	2021-11-24	Add number ranges for MSISDN (NDC: 70590-70599, 70885-70889)
JPNKD	21	Contact Information	2021-11-24	update contacts
JPNKI	4	Routing Information	2021-11-24	Add number ranges for MSISDN (NDC: 70590-70599, 70885-70889)
JPNKS	4	Routing Information	2021-11-24	Add number ranges for MSISDN (NDC: 70590-70599, 70885-70889)
JPNKD	4	Routing Information	2021-09-10	Add new TADIG JPNKS (440-54)
JPNKD	16	Packet Data Service Information	2021-09-10	Add new TADIG JPNKS (440-54)
JPNKD	17	IP Roaming/Networking Information	2021-09-10	Add new TADIG JPNKS (440-54)
JPNKD	20	LTE Roaming Information	2021-09-10	Add new TADIG JPNKS (440-54)
JPNKI	4	Routing Information	2021-09-10	Add new TADIG JPNKS (440-54)
JPNKS	4	Routing Information	2021-09-10	Add new TADIG JPNKS (440-54)
JPNKD	16	Packet Data Service Information	2021-07-12	add a new APN
JPNKI	23	M2M Roaming Information	2021-07-12	added M2M info
JPNKI	23	M2M Roaming Information	2021-07-12	deleted unnecessary info
JPNKD	17	IP Roaming/Networking Information	2021-05-27	Add IP Address Range
JPNKD	17	IP Roaming/Networking Information	2021-04-14	Add IP Address Range
JPNKD	4	Routing Information	2020-06-22	Add number ranges for MSISDN (NDC: 70771-70779)
JPNKD	4	Routing Information	2020-06-22	Add number ranges for MSISDN (NDC: 70860-70784)
JPNKD	4	Routing Information	2020-06-22	sum up range for Number Portability
JPNKD	4	Routing Information	2020-06-22	sum up MSISDN range for Number Portability
JPNKI	4	Routing Information	2020-06-22	Add number ranges for MSISDN (NDC: 70771-70779)
JPNKI	4	Routing Information	2020-06-22	Add number ranges for MSISDN (NDC: 70860-70784)
JPNKI	4	Routing Information	2020-06-22	sum up MSISDN range for Number portability
JPNKD	16	Packet Data Service Information	2020-03-31	removed APN=au4g.au-net.ne.jp
JPNKD	16	Packet Data Service Information	2019-12-06	new APN for 5G
JPNKD	20	LTE Roaming Information	2019-12-06	Add EPC Realm for 440-51
JPNKD	16	Packet Data Service Information	2019-09-08	add a new APN
JPNKD	16	Packet Data Service Information	2019-07-18	add APN=unitrg.au-net.ne.jp
JPNKD	21	Contact Information	2019-07-18	update contacts
JPNKD	16	Packet Data Service Information	2019-05-13	update APN type
JPNKD	20	LTE Roaming Information	2019-05-13	remove blank space
JPNKD	20	LTE Roaming Information	2019-05-13	update IPX provider
JPNKD	20	LTE Roaming Information	2019-05-10	mention MCC/MNC
JPNKD	21	Contact Information	2019-05-10	removed contact person due personnel change

TADIG Code	Section ID	Section	Date	Description
JPNKD	17	IP Roaming/Networking Information	2018-07-25	Add ULIs
JPNKI	23	M2M Roaming Information	2018-06-18	Add Section 23 (M2M Roaming Information)
JPNKD	16	Packet Data Service Information	2017-09-29	Add APNs
JPNKD	21	Contact Information	2017-09-14	Changed Contact Information
JPNKD	4	Routing Information	2017-01-13	add 8170761 - 8170769, 8170770
JPNKD	13	Network Elements Information	2017-01-13	Add GGSN, PGW
JPNKD	16	Packet Data Service Information	2017-01-13	Add APN = kwx2a.au-net.ne.jp
JPNKI	4	Routing Information	2017-01-11	add 8170761 - 8170769, 8170770
JPNKD	4	Routing Information	2016-07-07	Add number ranges for MSISDN (NDC:70479, 70740-70760)
JPNKD	16	Packet Data Service Information	2016-07-07	Add APN:uniz.au-net.ne.jp
JPNKI	4	Routing Information	2016-07-07	Add number ranges for MSISDN (NDC:70479, 70740-70760)
JPNKD	4	Routing Information	2016-05-13	Add number ranges for MSISDN (NDC: , 70474.....70478) and Number Portability (NDC: 707)
JPNKD	5	International SCCP Gateway	2016-05-13	Delete information of KDDI
JPNKI	4	Routing Information	2016-05-13	Add number ranges for MSISDN (NDC: , 70474.....70478) and Number Portability (NDC: 707)
JPNKD	4	Routing Information	2016-02-25	correct additional information
JPNKI	4	Routing Information	2016-02-25	correct additional information
JPNKD	17	IP Roaming/Networking Information	2016-02-24	ADD IP addresses
JPNKD	4	Routing Information	2015-07-10	Add number ranges for MSISDN (NDC: , 7024270473) and Number Portability (NDC: 703, 704)
JPNKD	9	Test Numbers Information	2015-07-10	Add test number for IW-SMS
JPNKD	16	Packet Data Service Information	2015-07-10	Add APN univ.au-net.ne.jp
JPNKI	4	Routing Information	2015-07-10	Add number ranges for MSISDN (NDC: , 7024270473) and Number Portability (NDC: 703, 704)
JPNKD	16	Packet Data Service Information	2015-04-24	Add UserName and Password
JPNKD	20	LTE Roaming Information	2015-04-24	ADD FQDN
JPNKD	16	Packet Data Service Information	2015-04-23	Add 3 APN
JPNKD	17	IP Roaming/Networking Information	2015-04-23	Add IP adress
JPNKD	21	Contact Information	2015-04-01	Changed the IR21 Distribution Email Address
JPNKD	17	IP Roaming/Networking Information	2015-02-24	Add GRX provider : Syniverse (22870)
JPNKD	16	Packet Data Service Information	2014-10-06	Add APN WEB kwx2.au-net.ne.jp
JPNKD	16	Packet Data Service Information	2014-09-04	Add APN WEB tig.au-net.ne.jp
JPNKD	4	Routing Information	2014-06-16	Added NDC 705 and 706 in Number Portability range. Added MNP information in 3. Interworking SMS Routing Requirements of Additional Information.
JPNKD	21	Contact Information	2014-06-16	Changed Contact Information
JPNKI	4	Routing Information	2014-06-16	Added NDC 705 and 706 in Number Portability range. Added MNP information in 3. Interworking SMS Routing Requirements of Additional Information.
JPNKD	4	Routing Information	2014-02-06	Addition of a set of MNC(51) and NC(80984)
JPNKI	4	Routing Information	2014-02-06	Addition of a set of MNC(51) and NC(80984)
JPNKD	16	Packet Data Service Information	2014-02-04	Addition of APN Operator Identifiers
JPNKD	20	LTE Roaming Information	2014-02-04	Addition of a S6a hostname (epc.mnc051.mcc440.3gppnetwork.org)
JPNKD	13	Network Elements Information	2013-12-03	Add PGW
JPNKD	16	Packet Data Service Information	2013-12-03	Change 2G/3G QoS Profiles
JPNKD	17	IP Roaming/Networking Information	2013-12-03	Add IP ranges
JPNKD	20	LTE Roaming Information	2013-12-03	Change LTE QoS profile list
JPNKD	5	International SCCP Gateway	2013-10-18	No meaningful changes from the previous IR.21.
JPNKD	16	Packet Data Service Information	2013-10-18	Add APN WEB in Section 16.

TADIG Code	Section ID	Section	Date	Description
JPNKD	20	LTE Roaming Information	2013-10-18	No meaningful changes from the previous IR21.
JPNKD	20	LTE Roaming Information	2013-09-25	Add Section 20 (LTE Information)
JPNKD	4	Routing Information	2013-09-19	Add number ranges for MSISDN (NDC: 80986 - 80989, 70200 - 70241) and Number Portability (NDC: 701, 702)
JPNKD	4	Routing Information	2012-12-28	No changes from previous non-RAEX IR.21s, except NDC additions of (i) 8180932 to 8180939 and (ii) 8180980 to 8180985.
JPNKD	5	International SCCP Gateway	2012-12-28	No changes from previous non-REAX IR.21s.
JPNKD	7	SCCP Protocol	2012-12-28	No changes from previous non-REAX IR.21s.
JPNKD	8	Subscriber Identity Authentication	2012-12-28	No changes from previous non-REAX IR.21s.
JPNKD	10	MAP	2012-12-28	Some AC MAP version were upgraded from previous non-REAX IR.21s.
JPNKD	16	Packet Data Service Information	2012-12-28	No changes from previous non-REAX IR.21s.
JPNKD	17	IP Roaming/Networking Information	2012-12-28	No changes from previous non-REAX IR.21s.
JPNKD	21	Contact Information	2012-12-28	Troubleshooting contacts are updated and/or newly designated.

NETWORK

TADIG code: JPNKD

Section ID: 2 (Mandatory, Repeating)

TADIG code:	JPNKD
Network name:	(440-50)
Network type:	Terrestrial
Technology:	Frequency list:
2G-GSM frequencies:	Unsupported
3G-UTRA/FDD frequencies:	Unsupported
3G-UTRA/TDD frequencies:	Unsupported
4G-E-UTRAN frequencies:	1 - IMT 2.1 GHz, 3 - DCS 1800, 11 - 1.5 GHz Lower, 18 - 800 MHz Lower, 26 - 800 MHz iDEN, 28 - 700 MHz APAC, 41 - TDD 2.5 GHz, 42 - TDD 3.4 GHz
4G-E-UTRAN-MIoT-LTE-M frequencies:	Unsupported
4G-E-UTRAN-MIoT-NB-IoT frequencies:	Unsupported
MIoT-NB-IoT deployment modes:	Unsupported
5G NR frequencies:	Unsupported
Presentation of country initials and MNN:	KDDI
Abbreviated MNN:	JPNKD

NETWORK INFORMATION

TADIG code: JPNKD

Section ID: 3 (Mandatory)

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

ROUTING INFORMATION

TADIG code: JPNKD

Section ID: 4 (Mandatory)

Effective date of change: 2022-03-30

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)								
	81	90110	00000	99999				
	81	90113	00000	99999				
	81	90114	00000	99999				
	81	90115	00000	99999				
	81	90116	00000	99999				
	81	90117	00000	99999				
	81	90118	00000	99999				
	81	90119	00000	99999				
	81	9012	000000	999999				
	81	90180	00000	99999				
	81	90181	00000	99999				
	81	90182	00000	99999				
	81	90183	00000	99999				
	81	90184	00000	99999				
	81	90185	00000	99999				
	81	90186	00000	99999				
	81	90190	00000	99999				
	81	90191	00000	99999				
	81	90192	00000	99999				
	81	90193	00000	99999				
	81	90194	00000	99999				
	81	90195	00000	99999				
	81	90196	00000	99999				
	81	90197	00000	99999				
	81	9020	000000	999999				
	81	90290	00000	99999				
	81	90291	00000	99999				
	81	90293	00000	99999				
	81	90294	00000	99999				
	81	90343	00000	99999				
	81	90344	00000	99999				
	81	90345	00000	99999				
	81	9035	000000	999999				
	81	9036	000000	999999				
	81	9037	000000	999999				
	81	9038	000000	999999				
	81	90398	00000	99999				
	81	90399	00000	99999				
	81	90415	00000	99999				
	81	90416	00000	99999				
	81	90417	00000	99999				

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)								
	81	90418	00000	99999				
	81	90419	00000	99999				
	81	90420	00000	99999				
	81	90421	00000	99999				
	81	90422	00000	99999				
	81	90423	00000	99999				
	81	90424	00000	99999				
	81	90425	00000	99999				
	81	9044	000000	999999				
	81	9061	000000	999999				
	81	9062	000000	999999				
	81	9063	000000	999999				
	81	90670	00000	99999				
	81	90671	00000	99999				
	81	90672	00000	99999				
	81	90673	00000	99999				
	81	90674	00000	99999				
	81	90675	00000	99999				
	81	90683	00000	99999				
	81	90685	00000	99999				
	81	90686	00000	99999				
	81	90687	00000	99999				
	81	9075	000000	999999				
	81	90804	00000	99999				
	81	90805	00000	99999				
	81	90806	00000	99999				
	81	90808	00000	99999				
	81	9081	000000	999999				
	81	9082	000000	999999				
	81	90830	00000	99999				
	81	90831	00000	99999				
	81	90832	00000	99999				
	81	90833	00000	99999				
	81	90836	00000	99999				
	81	90837	00000	99999				
	81	90838	00000	99999				
	81	90839	00000	99999				
	81	90843	00000	99999				
	81	90844	00000	99999				
	81	9092	000000	999999				
	81	9093	000000	999999				
	81	90960	00000	99999				
	81	90961	00000	99999				
	81	90962	00000	99999				
	81	90963	00000	99999				

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)								
	81	90964	00000	99999				
	81	90966	00000	99999				
	81	90967	00000	99999				
	81	9097	000000	999999				
	81	805	0000000	9999999				
	81	806	0000000	9999999				
	81	8090	000000	999999				
	81	8093	000000	999999				
	81	8098	000000	999999				
	81	7020	000000	999999				
	81	7021	000000	999999				
	81	7022	000000	999999				
	81	7023	000000	999999				
	81	7024	000000	999999				
	81	7035	000000	999999				
	81	7036	000000	999999				
	81	7037	000000	999999				
	81	7038	000000	999999				
	81	7045	000000	999999				
	81	7046	000000	999999				
	81	7047	000000	999999				
	81	7059	000000	999999				
	81	7074	000000	999999				
	81	7075	000000	999999				
	81	7076	000000	999999				
	81	7077	000000	999999				
	81	7086	000000	999999				
	81	7087	000000	999999				
	81	7088	000000	999999				

Network Nodes Global Title Number Range(s)								
	81	80931	00000	99999				
	81	80599	80000	80999				
	81	80599	81000	81999				
	81	80984	00000	99999				

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	440	50

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	81	80931

Does Number Portability apply ?	Yes
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Is 15 Digit MSISDN Supported ?	No
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USIM SIM Header	8981300
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E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	81	70	00000000	99999999
	81	80	00000000	99999999
	81	90	00000000	99999999

Additional Information
1. Networks
i) This IR.21 contains three (3) network information: MCC-MNC:440-50, 440-51 and 440-54.
ii) 440-51 is used for VoLTE subscribers and network, and 440-54 for 5G SA subscribers and network.
iii) Except for the IMSI to MGT translation below, all the information of Networks of 440-50 is applicable.
2. IMSI (E.212) to MGT (E.214) Translation
IMSI (E.212) should be translated to MGT (E.214) as follows:
MCC(440) MNC(50) MSIN (10 digits) -> CC(81) NDC(80931) MSIN (most significant 8 digits only)
MCC(440) MNC(51) MSIN (10 digits) -> CC(81) NDC(80984) MSIN (most significant 8 digits only)
MCC(440) MNC(54) MSIN (10 digits) -> CC(81) NDC(80984) MSIN (most significant 8 digits only)
Please be noted that newly added MCC-MNC:440-54 uses a common MGT prefix:81 80984 which is being used for MCC-MNC:440-51 as shown above.
In accordance with ITU-T E.214, please make sure that your MSC/VLR truncates the least significant two (2) digits of MSIN when it translate IMSI to MGT.
<Translation Example>
440 50 12345 67890 -> 81 80931 12345 678
440 51 12345 67890 -> 81 80984 12345 678
440 54 12345 67890 -> 81 80984 12345 678

History of changes

Date	Description
2022-03-30	Delete Additional Information 3. MCC-MNC: 440-54 for IW-SMS MAP signaling
2021-11-24	Add number ranges for MSISDN (NDC: 70590-70599, 70885-70889)
2021-09-10	Add new TADIG JPNKS (440-54)
2020-06-22	Add number ranges for MSISDN (NDC: 70771-70779)
2020-06-22	Add number ranges for MSISDN (NDC: 70860-70784)
2020-06-22	sum up range for Number Portability
2020-06-22	sum up MSISDN range for Number Portability
2017-01-13	add 8170761 - 8170769, 8170770
2016-07-07	Add number ranges for MSISDN (NDC:70479, 70740-70760)
2016-05-13	Add number ranges for MSISDN (NDC: , 70474.....70478) and Number Portability (NDC: 707)
2016-02-25	correct additional information
2015-07-10	Add number ranges for MSISDN (NDC: , 7024270473) and Number Portability (NDC: 703, 704)
2014-06-16	Added NDC 705 and 706 in Number Portability range. Added MNP information in 3. Interworking SMS Routing Requirements of Additional Information.
2014-02-06	Addition of a set of MNC(51) and NC(80984)
2013-09-19	Add number ranges for MSISDN (NDC: 80986 - 80989, 70200 - 70241) and Number Portability (NDC: 701, 702)
2012-12-28	No changes from previous non-RAEX IR.21s, except NDC additions of (i) 8180932 to 8180939 and (ii) 8180980 to 8180985.

INTERNATIONAL SCCP GATEWAY

TADIG code: JPNKD

Section ID: 5 (Optional)

Effective date of change: 2016-05-13

International SCCP carrier list	
SCCP carrier name:	Syniverse Technologies
Connectivity information:	Primary
MNO TADIG code list:	
DPC info:	
Signature:	Syniverse (U.S.A)
Type:	STP
International DPC:	3.30.5
Comments:	
SCCP carrier name:	CITIC Telecom International Limited
Connectivity information:	Primary
MNO TADIG code list:	
DPC info:	
Signature:	CITP5
Type:	STP
International DPC:	4.176.4
Comments:	
DPC info:	
Signature:	CITP6
Type:	STP
International DPC:	4.179.0
Comments:	
SCCP carrier name:	BICS
Connectivity information:	Primary
MNO TADIG code list:	
DPC info:	
Signature:	Brussels/H
Type:	STP
International DPC:	2.13.1
Comments:	
DPC info:	
Signature:	Brussels/I
Type:	STP
International DPC:	2.14.7
Comments:	

History of changes

Date	Description
2016-05-13	Delete information of KDDI
2013-10-18	No meaningful changes from the previous IR.21.
2012-12-28	No changes from previous non-REAX IR.21s.

SCCP Protocol available at PMN for connection for International SS7 Roaming

TADIG code: JPNKD

Section ID: 7 (Optional)

Effective date of change: 2012-12-28

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

History of changes

Date	Description
2012-12-28	No changes from previous non-REAX IR.21s.

SUBSCRIBER IDENTITY AUTHENTICATION

TADIG code: JPNKD

Section ID: 8 (Optional)

Effective date of change: 2012-12-28

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
2012-12-28	No changes from previous non-REAX IR.21s.

Test Numbers Information

TADIG code: JPNKD

Section ID: 9 (Optional)

Effective date of change: 2015-07-10

Number Type	Test Number	Location	Comments
SMSIW	+8170-2140-0001	Tokyo	Auto reply for IW-SMS
SMSIW	+8170-2140-0002	Tokyo	Auto reply for IW-SMS

History of changes

Date	Description
2015-07-10	Add test number for IW-SMS

MOBILE APPLICATION PART (MAP)

TADIG code: JPNKD

Section ID: 10 (Optional)

Effective date of change: 2012-12-28

Interworking specifically for roaming				
Application context name	Current version in			Comments
	Inbound roaming		Outbound roaming	
	MSC/VLR	SGSN	Outbound roaming	
networkLocUp	-	N/A	MAPv3	
roamingNumberEnquiry	-	N/A	MAPv3	
InfoRetrieval	-	-	MAPv3	
subscribeDataMngt	-	-	MAPv3	
networkFunctionalSs	-	N/A	MAPv2	
mwdMngt	-	-	MAPv3	
shortMsgMT-Relay (called shortMsgRelay in v1)	-	-	MAPv3	
shortMsgMO-Relay (called shortMsgRelay in v1)	-	-	MAPv3	
ss-InvocationNotification	-	N/A	-	
subscriberInfoEnquiry	-	-	MAPv3	
gprsLocationUpdate	N/A	-	MAPv3	
locationCancellation	-	-	MAPv3	
msPurging	-	-	MAPv3	
reset	-	-	MAPv1	
networksUnstructuredSs	-	N/A	MAPv2	
reporting	-	N/A	-	
callCompletion	-	N/A	-	
istAlerting	-	N/A	-	
service Termination	-	N/A	-	
locationSvcGateway	N/A	N/A	-	
mm-EventReporting	-	N/A	-	
authenticationFaillureReport	-	-	MAPv3	
imsiRetrieval	-	N/A	-	
gprsNotifyContext	N/A	-	-	
gprsLocationInfoRetrieval	N/A	-	-	
faillureReport	N/A	-	-	
secureTransportHandling	-	-	-	

History of changes

Date	Description
2012-12-28	Some AC MAP version were upgraded from previous non-REAX IR.21s.

NETWORK ELEMENTS INFORMATION

TADIG code: JPNKD

Section ID: 13 (Optional)

Effective date of change: 2022-03-30

Node type	Node ID	GT address / Address range	IP address / Address range	IPv6 address / Address range	Vendor info	SW / HW version	UTC offset
HLR	IIF-A	81 8093110000					+09:00
HLR	IIF-AS	81 8093111000					+09:00
HLR	IIF-B	81 8093120000					+09:00
HLR	IIF-BS	81 8093121000					+09:00
HLR	GSM-HLR-Alias	81 8093150100					+09:00
HLR	GSM-HLR-Tama1	81 8093150101					+09:00
HLR	GSM-HLR-Tama2	81 8093150102					+09:00
HLR	GSM-HLR-Tama3	81 8093150103					+09:00
HLR	GSM-HLR-Osaka1	81 8093150104					+09:00
HLR	GSM-HLR-Osaka2	81 8093150105					+09:00
HLR	GSM-HLR-Osaka3	81 8093150106					+09:00
HLR	HLRsa-Alias	81 8093151020					+09:00
HLR	HLRsa-Tama	81 8093151021					+09:00
HLR	HLRsa-Oyama	81 8093151022					+09:00
HLR	HLRsa-Osaka	81 8093151023					+09:00
HLR	HLRsa-Chiyo	81 8093151024					+09:00
SMSC	SMSC-A	81 8059980000					+09:00
SMSC	SMSC-AV	81 8059981200					+09:00
SMSC	SMSC-BV	81 8059981300					+09:00
SMSC	SMSC-IWS-M	81 8059980102					+09:00
SMSC	SMSC-IWS-B	81 8059980202					+09:00
SMSC	SMSC-IWS-Y	81 8059980302					+09:00
SMSC	SMSC-IWS-Q	81 8059980402					+09:00
GGSN	GGSN-A		210.196.1.0/25				+09:00
GGSN	GGSN-B		210.196.1.128/25				+09:00
GGSN	GGSN-E		210.142.8.0/21				+09:00
PGW	GGSN-A		210.196.1.0/25				+09:00
PGW	GGSN-B		210.196.1.128/25				+09:00
PGW	GGSN-E		210.142.8.0/21				+09:00

History of changes

Date	Description
2022-03-30	Add HLR and SMSC GT Numbers for JPNKD/KI 440-50/51 GSM NW and JPNKS 440-54 SA NW
2017-01-13	Add GGSN, PGW
2013-12-03	Add PGW

Packet Data Services Information

TADIG code: JPNKD

Section ID: 16 (Conditional)

Effective date of change: 2022-06-17

List of APN Operator Identifiers

APN Operator Identifier	Description	Example
mnc050.mcc440.gprs		
mnc051.mcc440.gprs		
mnc054.mcc440.gprs		
mnc050.mcc440.3gppnetwork.org		
mnc051.mcc440.3gppnetwork.org		
mnc054.mcc440.3gppnetwork.org		

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

APN	APN Credential		APN Type	ISP DNS IP address (primary)	ISP DNS IP address (secondary)
	Username	Password			
rt.au-net.ne.jp	kddi001@rt.au-net.ne.jp	0077	H-APN		
unij.au-net.ne.jp			H-APN		
uno.au-net.ne.jp			H-APN		
au.au-net.ne.jp			H-APN		
tig.au-net.ne.jp			H-APN		
kwx2.au-net.ne.jp			H-APN		
unfp.au-net.ne.jp			H-APN		
tyo.rt.au-net.ne.jp	kddi001@tyo.rt.au-net.ne.jp	0077	H-APN		
osa.rt.au-net.ne.jp	kddi001@osa.rt.au-net.ne.jp	0077	H-APN		
univ.au-net.ne.jp			H-APN		
uniz.au-net.ne.jp			H-APN		
kwx2a.au-net.ne.jp			H-APN		
unid.au-net.ne.jp			H-APN		
unod.au-net.ne.jp			H-APN		
unitrg.au-net.ne.jp			H-APN		
gremote.kddi.com			H-APN		
uad5gn.au-net.ne.jp			H-APN		
uio5gn.au-net.ne.jp			H-APN		
uio5gntrg.au-net.ne.jp			H-APN		
au5g.au-net.ne.jp			H-APN		
kwx25gn.au-net.ne.jp			H-APN		
uqmobile.jp			H-APN		
kwx25gs.au-net.ne.jp			H-APN		

APN WAP List

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

APN MMS List

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

IPv6 Connectivity Information

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

List of 2G/3G QoS profiles

Profile name:	GPRS 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	Not supported

History of changes

Date	Description
2022-06-17	Add 5G-SA APN = kwx25gs.au-net.ne.jp
2021-09-10	Add new TADIG JPNKS (440-54)
2021-07-12	add a new APN
2020-03-31	removed APN=au4g.au-net.ne.jp
2019-12-06	new APN for 5G
2019-09-08	add a new APN
2019-07-18	add APN=unitrg.au-net.ne.jp
2019-05-13	update APN type
2017-09-29	Add APNs
2017-01-13	Add APN = kwx2a.au-net.ne.jp
2016-07-07	Add APN:uniz.au-net.ne.jp
2015-07-10	Add APN univ.au-net.ne.jp
2015-04-24	Add UserName and Password
2015-04-23	Add 3 APN
2014-10-06	Add APN WEB kwx2.au-net.ne.jp
2014-09-04	Add APN WEB tig.au-net.ne.jp
2014-02-04	Addition of APN Operator Identifiers
2013-12-03	Change 2G/3G QoS Profiles
2013-10-18	Add APN WEB in Section 16.
2012-12-28	No changes from previous non-REAX IR.21s.

IP - Roaming and IP - Interworking Information

TADIG code: JPNKD

Section ID: 17 (Conditional)

Effective date of change: 2021-09-10

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range
	210.196.1.0/25
	210.196.1.128/25
	210.142.0.0/22
	210.142.4.0/23
	210.142.8.0/21
	210.142.16.0/22
	210.142.24.0/22
	106.162.198.128/25
	27.80.231.192/26
	103.67.223.64/26
	103.67.220.16/28
	103.67.220.48/28
	103.67.221.0/28
	103.67.221.32/28

ULI Additional MCC/MNC List	MCC	MNC
	440	50
	440	51
	440	52
	441	10
	440	54

List of Autonomous System Number (ASN):	ASN
	2516

List of Autonomous System Number (ASN4B):	ASN4B
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List of PMN authoritative DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
210.196.1.65		tky4RDNS01
210.196.1.161		oskcRDNS01

IP addresses that respond to ping / traceroute:	210.196.1.78
-------------------------------------------------	--------------

List of GRX Providers	GRX Provider
	Aicent (19440) SAP(Sybase) (4445, 64515) Syniverse (22870)

History of changes

Date	Description
2021-09-10	Add new TADIG JPNKS (440-54)
2021-05-27	Add IP Address Range
2021-04-14	Add IP Address Range
2018-07-25	Add ULIs
2016-02-24	ADD IP addresses
2015-04-23	Add IP address
2015-02-24	Add GRX provider : Syniverse (22870)
2013-12-03	Add IP ranges
2012-12-28	No changes from previous non-REAX IR.21s.

LTE Roaming Information

TADIG code: JPNKD

Section ID: 20 (Optional)

Effective date of change: 2022-04-27

IPX Provider Name	IPX DA Realm Used	Diameter Architecture
Syniverse		
Primary IP address of DA	Secondary IP address of DA	
IPX Provider Name	IPX DA Realm Used	Diameter Architecture
SAP		
Primary IP address of DA	Secondary IP address of DA	

Roaming Interconnection

EPC Realms For Roaming	
	epc.mnc050.mcc440.3gppnetwork.org
	epc.mnc051.mcc440.3gppnetwork.org
	epc.mnc054.mcc440.3gppnetwork.org

FQDN Diameter Edge Agent

FQDN	Primary IP Address DEA FQDN	Secondary IP Address DEA FQDN
TBD	210.196.1.107	210.196.1.235

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

List of LTE QoS profiles

Profile name:	LTE QoS
QCI Value List:	6 8 9
QoS ARP List:	8
ARP Preemption Vulnerability List:	0
ARP Preemption Capability List:	0

IPv6 Connectivity Information

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

5G early drop support

	As HPMN	AS VPMN
5G NSA (non-standalone access) supported	No	Yes
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		Yes

History of changes

Date	Description
2022-04-27	Add QCI=8,9
2021-09-10	Add new TADIG JPNKS (440-54)
2019-12-06	Add EPC Realm for 440-51
2019-05-13	remove blank space
2019-05-13	update IPX provider
2019-05-10	mention MCC/MNC
2015-04-24	ADD FQDN
2014-02-04	Addition of a S6a hostname (epc.mnc051.mcc440.3gppnetwork.org)
2013-12-03	Change LTE QoS profile list
2013-10-18	No meaningful changes from the previous IR21.
2013-09-25	Add Section 20 (LTE Information)

CONTACT INFORMATION

TADIG code: JPNKD

Section ID: 21 (Optional, Repeating)

Effective date of change: 2022-08-18

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

Location	Tokyo		
Office Time Zone in UTC	+09:00		
Office Hours	Week Day (s)	Start Time	End Time
	Mon Tue Wed Thu Fri	09:00:00	17:00:00

Main Contact for Troubleshooting (Office Hours)

Team Name	Tel.	Mobile	Fax	Email
KDDI GNOC duty officers	81333476774			tok-noc@kddi.com roaming.operation@gnoc.kddi.com

Escalation Contact for Troubleshooting

Person Name	Tel.	Mobile	Fax	Email
KDDI GNOC duty managers	81333476774			tok-noc@kddi.com roaming.operation@gnoc.kddi.com

24 x 7 Troubleshooting (contact out of Office Hours)

Team Name	Tel.	Mobile	Fax	Email
KDDI GNOC duty officers	81333476774			tok-noc@kddi.com roaming.operation@gnoc.kddi.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
KDDI IREG Team			
JobTitle	Email		
	roaming-test@kddi.com		
Person Name	Tel.	Mobile	Fax
Syniverse Customer Support	18008922888 18132337860		18136375904
JobTitle	Email		
	customersupport@syniverse.com		
Person Name	Tel.	Mobile	Fax
CITIC Customer Services	85223778899		
JobTitle	Email		
	cs@citictel.com roaming@citictel.com (for IR21 network data updating)		
Person Name	Tel.	Mobile	Fax
BICS Customer Care	3225475151 1		
JobTitle	Email		
	customer.care@bics.com		

Roaming Coordinator

Person Name	Tel.	Mobile	Fax
KDDI Roaming Business Team			
JobTitle	Email		
	roaming@kddi.com		

IREG Tests

Person Name	Tel.	Mobile	Fax
KDDI IREG Team			
JobTitle	Email		
	roaming-test@kddi.com		
Person Name	Tel.	Mobile	Fax
Mr. Yusuke Hirano		+817035087449	
JobTitle	Email		
IREG team manager	y-hirano@kddi.com		
Person Name	Tel.	Mobile	Fax
Mr. Kentaroh Nagamine		+817035072510	
JobTitle	Email		
IREG team manager	ke-nagamine@kddi.com		

TADIG Tests

Person Name	Tel.	Mobile	Fax
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KDDI TADIG Team			
JobTitle		Email	
		tap-billing@kddi.com	

Other contact(s)

	Person Name	Tel.	Mobile	Fax
	KDDI Messaging Services Dept.			
	JobTitle		Email	
	for IW-SMS commercial arrangements		msg-t@kddi.com	
	Person Name	Tel.	Mobile	Fax
	KDDI Roaming Business Team			
	JobTitle		Email	
			roaming@kddi.com	

IR21 Distribution Email Address	Email
	gsma-gnoc@kddi.com

History of changes

Date	Description
2022-08-18	update contacts
2021-11-24	update contacts
2019-07-18	update contacts
2019-05-10	removed contact person due personnel change
2017-09-14	Changed Contact Information
2015-04-01	Changed the IR21 Distribution Email Address
2014-06-16	Changed Contact Information
2012-12-28	Troubleshooting contacts are updated and/or newly designated.

SECTIONS NOT IN USE

TADIG Code	Section ID	Section Name
JPNKD	6	Domestic SCCP Gateway
JPNKD	11	MAP Optimal Routing Section
JPNKD	12	MAP Inter Operator SMS Enhancement
JPNKD	14	USSD Information
JPNKD	15	CAMEL Information
JPNKD	18	MMS Interworking Information
JPNKD	19	WLAN Information
JPNKD	22	Hosted Networks
JPNKD	23	M2M Roaming Information
JPNKD	24	MVNO Information
JPNKD	26	VoLTE Roaming Information Section
JPNKD	27	LPWA Roaming Information Section

NETWORK

TADIG code: JPNKI

Section ID: 2 (Mandatory, Repeating)

TADIG code:	JPNKI
Network name:	(440-51)
Network type:	Terrestrial
Technology:	Frequency list:
2G-GSM frequencies:	Unsupported
3G-UTRA/FDD frequencies:	Unsupported
3G-UTRA/TDD frequencies:	Unsupported
4G-E-UTRAN frequencies:	1 - IMT 2.1 GHz, 3 - DCS 1800, 11 - 1.5 GHz Lower, 18 - 800 MHz Lower, 26 - 800 MHz iDEN, 28 - 700 MHz APAC, 41 - TDD 2.5 GHz, 42 - TDD 3.4 GHz
4G-E-UTRAN-MIoT-LTE-M frequencies:	18 - 800 MHz Lower, 26 - 800 MHz iDEN
4G-E-UTRAN-MIoT-NB-IoT frequencies:	Unsupported
MIoT-NB-IoT deployment modes:	Unsupported
5G NR frequencies:	n3 - FDD 1800, n28 - FDD 700, n77 - TDD 3700, n78 - TDD 3500, n257 - 28 GHz
Presentation of country initials and MNN:	KDDI
Abbreviated MNN:	JPNKI

NETWORK INFORMATION

TADIG code: JPNKI

Section ID: 3 (Mandatory)

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

ROUTING INFORMATION

TADIG code: JPNKI

Section ID: 4 (Mandatory)

Effective date of change: 2022-03-30

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)								
	81	90110	00000	99999				
	81	90113	00000	99999				
	81	90114	00000	99999				
	81	90115	00000	99999				
	81	90116	00000	99999				
	81	90117	00000	99999				
	81	90118	00000	99999				
	81	90119	00000	99999				
	81	9012	000000	999999				
	81	90180	00000	99999				
	81	90181	00000	99999				
	81	90182	00000	99999				
	81	90183	00000	99999				
	81	90184	00000	99999				
	81	90185	00000	99999				
	81	90186	00000	99999				
	81	90190	00000	99999				
	81	90191	00000	99999				
	81	90192	00000	99999				
	81	90193	00000	99999				
	81	90194	00000	99999				
	81	90195	00000	99999				
	81	90196	00000	99999				
	81	90197	00000	99999				
	81	9020	000000	999999				
	81	90290	00000	99999				
	81	90291	00000	99999				
	81	90293	00000	99999				
	81	90294	00000	99999				
	81	90343	00000	99999				
	81	90344	00000	99999				
	81	90345	00000	99999				
	81	9035	000000	999999				
	81	9036	000000	999999				
	81	9037	000000	999999				
	81	9038	000000	999999				
	81	90398	00000	99999				
	81	90399	00000	99999				
	81	90415	00000	99999				
	81	90416	00000	99999				
	81	90417	00000	99999				

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)								
	81	90418	00000	99999				
	81	90419	00000	99999				
	81	90420	00000	99999				
	81	90421	00000	99999				
	81	90422	00000	99999				
	81	90423	00000	99999				
	81	90424	00000	99999				
	81	90425	00000	99999				
	81	9044	000000	999999				
	81	9061	000000	999999				
	81	9062	000000	999999				
	81	9063	000000	999999				
	81	90670	00000	99999				
	81	90671	00000	99999				
	81	90672	00000	99999				
	81	90673	00000	99999				
	81	90674	00000	99999				
	81	90675	00000	99999				
	81	90683	00000	99999				
	81	90685	00000	99999				
	81	90686	00000	99999				
	81	90687	00000	99999				
	81	9075	000000	999999				
	81	90804	00000	99999				
	81	90805	00000	99999				
	81	90806	00000	99999				
	81	90808	00000	99999				
	81	9081	000000	999999				
	81	9082	000000	999999				
	81	90830	00000	99999				
	81	90831	00000	99999				
	81	90832	00000	99999				
	81	90833	00000	99999				
	81	90836	00000	99999				
	81	90837	00000	99999				
	81	90838	00000	99999				
	81	90839	00000	99999				
	81	90843	00000	99999				
	81	90844	00000	99999				
	81	9092	000000	999999				
	81	9093	000000	999999				
	81	90960	00000	99999				
	81	90961	00000	99999				
	81	90962	00000	99999				
	81	90963	00000	99999				

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)								
	81	90964	00000	99999				
	81	90966	00000	99999				
	81	90967	00000	99999				
	81	9097	000000	999999				
	81	805	0000000	9999999				
	81	806	0000000	9999999				
	81	8090	000000	999999				
	81	8093	000000	999999				
	81	8098	000000	999999				
	81	7020	000000	999999				
	81	7021	000000	999999				
	81	7022	000000	999999				
	81	7023	000000	999999				
	81	7024	000000	999999				
	81	7035	000000	999999				
	81	7036	000000	999999				
	81	7037	000000	999999				
	81	7038	000000	999999				
	81	7045	000000	999999				
	81	7046	000000	999999				
	81	7047	000000	999999				
	81	7059	000000	999999				
	81	7074	000000	999999				
	81	7075	000000	999999				
	81	7076	000000	999999				
	81	7077	000000	999999				
	81	7086	000000	999999				
	81	7087	000000	999999				
	81	7088	000000	999999				

Network Nodes Global Title Number Range(s)								
	81	80984	00000	99999				
	81	80599	80000	80999				
	81	80599	81000	81999				
	81	80931	00000	99999				

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	440	51

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	81	80984

Does Number Portability apply ?	Yes
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Is 15 Digit MSISDN Supported ?	No
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E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	81	70	00000000	99999999

E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	81	80	00000000	99999999
	81	90	00000000	99999999

Additional Information
1. Networks
Please refer to Section.4 Additional information of JPNKD.
2. IMSI (E.212) to MGT (E.214) Translation
IMSI (E.212) should be translated to MGT (E.214) as follows:
MCC(440) MNC(50) MSIN (10 digits) -> CC(81) NDC(80931) MSIN (most significant 8 digits only)
MCC(440) MNC(51) MSIN (10 digits) -> CC(81) NDC(80984) MSIN (most significant 8 digits only)
MCC(440) MNC(54) MSIN (10 digits) -> CC(81) NDC(80984) MSIN (most significant 8 digits only)
Please be noted that newly added MCC-MNC:440-54 uses a common MGT prefix:81 80984 which is being used for MCC-MNC:440-51 as shown above.
In accordance with ITU-T E.214, please make sure that your MSC/VLR truncates the least significant two (2) digits of MSIN when it translate IMSI to MGT.
<Translation Example>
440 50 12345 67890 -> 81 80931 12345 678
440 51 12345 67890 -> 81 80984 12345 678
440 54 12345 67890 -> 81 80984 12345 678

History of changes

Date	Description
2022-03-30	Delete Additional Information 3. MCC-MNC: 440-54 for IW-SMS MAP signaling
2021-11-24	Add number ranges for MSISDN (NDC: 70590-70599, 70885-70889)
2021-09-10	Add new TADIG JPNKS (440-54)
2020-06-22	Add number ranges for MSISDN (NDC: 70771-70779)
2020-06-22	Add number ranges for MSISDN (NDC: 70860-70784)
2020-06-22	sum up MSISDN range for Number portability
2017-01-11	add 8170761 - 8170769, 8170770
2016-07-07	Add number ranges for MSISDN (NDC:70479, 70740-70760)
2016-05-13	Add number ranges for MSISDN (NDC: , 70474.....70478) and Number Portability (NDC: 707)
2016-02-25	correct additional information
2015-07-10	Add number ranges for MSISDN (NDC: , 7024270473) and Number Portability (NDC: 703, 704)
2014-06-16	Added NDC 705 and 706 in Number Portability range. Added MNP information in 3. Interworking SMS Routing Requirements of Additional Information.
2014-02-06	Addition of a set of MNC(51) and NC(80984)

IP - Roaming and IP - Interworking Information

TADIG code: JPNKI

Section ID: 17 (Conditional)

Effective date of change: 2022-03-30

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range
	210.196.1.0/25
	210.196.1.128/25
	210.142.0.0/22
	210.142.4.0/23
	210.142.8.0/21
	210.142.16.0/22
	210.142.24.0/22
	106.162.198.128/25
	27.80.231.192/26
	103.67.223.64/26
	103.67.220.16/28
	103.67.220.48/28
	103.67.221.0/28
	103.67.221.32/28

ULI Additional MCC/MNC List	MCC	MNC
	440	50
	440	51
	440	52
	441	10
	440	54

List of Autonomous System Number (ASN):	ASN
	2516

List of Autonomous System Number (ASN4B):	ASN4B
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List of PMN authoritative DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
210.196.1.65		tky4RDNS01
210.196.1.161		oskcRDNS01

IP addresses that respond to ping / traceroute:	210.196.1.78
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List of GRX Providers	GRX Provider
	Aicent (19440) SAP(Sybase) (4445, 64515) Syniverse (22870)

History of changes

Date	Description
2022-03-30	Copy same content from JPNKD as per requested

M2M Roaming Information

TADIG code: JPNKI

Section ID: 23 (Conditional)

Effective date of change: 2021-07-12

<i>List of Sub Range IMSI</i>	Subrange IMSI	Description	Example
	4405140	use APN "dev1-telematics.m2m.kddi.com"	440514012345678
	440513033	use APN "soracom.io"	440513033123456

<i>APN M2M List</i>	APN	Username	Password	ISP DNS Primary IP Address	ISP DNS Secondary IP Address
	dev1-telematics.m2m.kddi.com				
	soracom.io				

History of changes

Date	Description
2021-07-12	added M2M info
2021-07-12	deleted unnecessary info
2018-06-18	Add Section 23 (M2M Roaming Information)

SECTIONS NOT IN USE

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

NETWORK

TADIG code: JPNKS

Section ID: 2 (Mandatory, Repeating)

TADIG code:	JPNKS
Network name:	(440-54)
Network type:	Terrestrial
Technology:	Frequency list:
2G-GSM frequencies:	Unsupported
3G-UTRA/FDD frequencies:	Unsupported
3G-UTRA/TDD frequencies:	Unsupported
4G-E-UTRAN frequencies:	1 - IMT 2.1 GHz, 3 - DCS 1800, 11 - 1.5 GHz Lower, 18 - 800 MHz Lower, 26 - 800 MHz iDEN, 28 - 700 MHz APAC, 41 - TDD 2.5 GHz, 42 - TDD 3.4 GHz
4G-E-UTRAN-MIoT-LTE-M frequencies:	18 - 800 MHz Lower, 26 - 800 MHz iDEN
4G-E-UTRAN-MIoT-NB-IoT frequencies:	Unsupported
MIoT-NB-IoT deployment modes:	Unsupported
5G NR frequencies:	n3 - FDD 1800, n28 - FDD 700, n77 - TDD 3700, n78 - TDD 3500, n257 - 28 GHz
Presentation of country initials and MNN:	KDDI
Abbreviated MNN:	JPNKS

NETWORK INFORMATION

TADIG code: JPNKS

Section ID: 3 (Mandatory)

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

ROUTING INFORMATION

TADIG code: JPNKS

Section ID: 4 (Mandatory)

Effective date of change: 2022-03-30

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)								
	81	90110	00000	99999				
	81	90113	00000	99999				
	81	90114	00000	99999				
	81	90115	00000	99999				
	81	90116	00000	99999				
	81	90117	00000	99999				
	81	90118	00000	99999				
	81	90119	00000	99999				
	81	9012	000000	999999				
	81	90180	00000	99999				
	81	90181	00000	99999				
	81	90182	00000	99999				
	81	90183	00000	99999				
	81	90184	00000	99999				
	81	90185	00000	99999				
	81	90186	00000	99999				
	81	90190	00000	99999				
	81	90191	00000	99999				
	81	90192	00000	99999				
	81	90193	00000	99999				
	81	90194	00000	99999				
	81	90195	00000	99999				
	81	90196	00000	99999				
	81	90197	00000	99999				
	81	9020	000000	999999				
	81	90290	00000	99999				
	81	90291	00000	99999				
	81	90293	00000	99999				
	81	90294	00000	99999				
	81	90343	00000	99999				
	81	90344	00000	99999				
	81	90345	00000	99999				
	81	9035	000000	999999				
	81	9036	000000	999999				
	81	9037	000000	999999				
	81	9038	000000	999999				
	81	90398	00000	99999				
	81	90399	00000	99999				
	81	90415	00000	99999				
	81	90416	00000	99999				
	81	90417	00000	99999				

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)								
	81	90418	00000	99999				
	81	90419	00000	99999				
	81	90420	00000	99999				
	81	90421	00000	99999				
	81	90422	00000	99999				
	81	90423	00000	99999				
	81	90424	00000	99999				
	81	90425	00000	99999				
	81	9044	000000	999999				
	81	9061	000000	999999				
	81	9062	000000	999999				
	81	9063	000000	999999				
	81	90670	00000	99999				
	81	90671	00000	99999				
	81	90672	00000	99999				
	81	90673	00000	99999				
	81	90674	00000	99999				
	81	90675	00000	99999				
	81	90683	00000	99999				
	81	90685	00000	99999				
	81	90686	00000	99999				
	81	90687	00000	99999				
	81	9075	000000	999999				
	81	90804	00000	99999				
	81	90805	00000	99999				
	81	90806	00000	99999				
	81	90808	00000	99999				
	81	9081	000000	999999				
	81	9082	000000	999999				
	81	90830	00000	99999				
	81	90831	00000	99999				
	81	90832	00000	99999				
	81	90833	00000	99999				
	81	90836	00000	99999				
	81	90837	00000	99999				
	81	90838	00000	99999				
	81	90839	00000	99999				
	81	90843	00000	99999				
	81	90844	00000	99999				
	81	9092	000000	999999				
	81	9093	000000	999999				
	81	90960	00000	99999				
	81	90961	00000	99999				
	81	90962	00000	99999				
	81	90963	00000	99999				

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)								
	81	90964	00000	99999				
	81	90966	00000	99999				
	81	90967	00000	99999				
	81	9097	000000	999999				
	81	805	0000000	9999999				
	81	806	0000000	9999999				
	81	8090	000000	999999				
	81	8093	000000	999999				
	81	8098	000000	999999				
	81	7020	000000	999999				
	81	7021	000000	999999				
	81	7022	000000	999999				
	81	7023	000000	999999				
	81	7024	000000	999999				
	81	7035	000000	999999				
	81	7036	000000	999999				
	81	7037	000000	999999				
	81	7038	000000	999999				
	81	7045	000000	999999				
	81	7046	000000	999999				
	81	7047	000000	999999				
	81	7059	000000	999999				
	81	7074	000000	999999				
	81	7075	000000	999999				
	81	7076	000000	999999				
	81	7077	000000	999999				
	81	7086	000000	999999				
	81	7087	000000	999999				
	81	7088	000000	999999				

Network Nodes Global Title Number Range(s)								
	81	80931	00000	99999				
	81	80599	80000	80999				
	81	80599	81000	81999				
	81	80984	00000	99999				

E. 212 Number series	Mobile Country Code (MCC)	Mobile Network Code (MNC)
	440	54

E. 214 Mobile Global Title (MGT)	Country Code of MGT (CC)	Network Code of MGT (NC)
	81	80984

Does Number Portability apply ?	Yes
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Is 15 Digit MSISDN Supported ?	No
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E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	81	70	00000000	99999999

E. 164 Number Ranges due to Number Portability	CC	NDC	SN Range Start	SN Range Stop
	81	80	00000000	99999999
	81	90	00000000	99999999

Additional Information
1. Networks
Please refer to Section.4 Additional information of JPNKD.
2. IMSI (E.212) to MGT (E.214) Translation
IMSI (E.212) should be translated to MGT (E.214) as follows:
MCC(440) MNC(50) MSIN (10 digits) -> CC(81) NDC(80931) MSIN (most significant 8 digits only)
MCC(440) MNC(51) MSIN (10 digits) -> CC(81) NDC(80984) MSIN (most significant 8 digits only)
MCC(440) MNC(54) MSIN (10 digits) -> CC(81) NDC(80984) MSIN (most significant 8 digits only)
Please be noted that newly added MCC-MNC:440-54 uses a common MGT prefix:81 80984 which is being used for MCC-MNC:440-51 as shown above.
In accordance with ITU-T E.214, please make sure that your MSC/VLR truncates the least significant two (2) digits of MSIN when it translate IMSI to MGT.
<Translation Example>
440 50 12345 67890 -> 81 80931 12345 678
440 51 12345 67890 -> 81 80984 12345 678
440 54 12345 67890 -> 81 80984 12345 678

History of changes

Date	Description
2022-03-30	Delete Additional Information 3. MCC-MNC: 440-54 for IW-SMS MAP signaling
2021-11-24	Add number ranges for MSISDN (NDC: 70590-70599, 70885-70889)
2021-09-10	Add new TADIG JPNKS (440-54)

IP - Roaming and IP - Interworking Information

TADIG code: JPNKS

Section ID: 17 (Conditional)

Effective date of change: 2022-03-30

List of All IP address ranges used by PMN for connection to inter - PMN IP backbone	IP Address Range
	210.196.1.0/25
	210.196.1.128/25
	210.142.0.0/22
	210.142.4.0/23
	210.142.8.0/21
	210.142.16.0/22
	210.142.24.0/22
	106.162.198.128/25
	27.80.231.192/26
	103.67.223.64/26
	103.67.220.16/28
	103.67.220.48/28
	103.67.221.0/28
	103.67.221.32/28

ULI Additional MCC/MNC List	MCC	MNC
	440	50
	440	51
	440	52
	441	10
	440	54

List of Autonomous System Number (ASN):	ASN
	2516

List of Autonomous System Number (ASN4B):	ASN4B
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List of PMN authoritative DNS server IP addresses and names		
IP address	IPv6 address	DNS Name
210.196.1.65		tky4RDNS01
210.196.1.161		oskcRDNS01

IP addresses that respond to ping / traceroute:	210.196.1.78
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List of GRX Providers	GRX Provider
	Aicent (19440) SAP(Sybase) (4445, 64515) Syniverse (22870)

History of changes

Date	Description
2022-03-30	Copy same content from JPNKD as per requested

SECTIONS NOT IN USE

TADIG Code	Section ID	Section Name
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JPNKS	6	Domestic SCCP Gateway
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JPNKS	11	MAP Optimal Routing Section
JPNKS	12	MAP Inter Operator SMS Enhancement
JPNKS	13	Network Elements Information
JPNKS	14	USSD Information
JPNKS	15	CAMEL Information
JPNKS	16	Packet Data Services Information
JPNKS	18	MMS Interworking Information
JPNKS	19	WLAN Information
JPNKS	20	Roaming in Long Term Evolution
JPNKS	22	Hosted Networks
JPNKS	21	Contact Information
JPNKS	23	M2M Roaming Information
JPNKS	24	MVNO Information
JPNKS	26	VoLTE Roaming Information Section
JPNKS	27	LPWA Roaming Information Section