# GSMA Roaming Database
# IR. 21 Data

**RAEX IR. 21 Information**

| Creation date: | 2014-02-06 |
|---|---|
| **Creation time:** | 14:05:53+01:00 |
| **TADIG-GEN schema version:** | 2.4 |
| **RAEX-IR.21 schema version:** | 8.2 |

**ORGANISATION INFORMATION**

TADIG code: NLDPT
Section ID: 1 (Mandatory)

| Organisation name: | KPN B.V. |
|---|---|
| Country initials: | NLD |

**History of changes**

| TADIG Code | Section ID | Section | Date | Description |
|---|---|---|---|---|
| NLDPT | 17 | IP Roaming/Networking Information | 2014-02-06 | DNS addresses 145.7.74.180 and 145.7.75.180 have been removed as authoritive DNS |
| NLDPT | 17 | IP Roaming/Networking Information | 2013-12-11 | added DNS 145.7.74.180 and 145.7.75.180 - updated DNS description |
| NLDPT | 4 | Routing Information | 2013-11-29 | NDC range +31658700000 up to +31658999999 included at KPN own number ranges |
| NLDPT | 4 | Routing Information | 2013-11-29 | update the NDC ranges for MNP (Mobile Number Portability) |
| NLDPT | 4 | Routing Information | 2013-11-01 | updated additional information DNS addresses |
| NLDPT | 13 | Network Elements Information | 2013-10-31 | added MSC/VLR +316530210000 4G Proxy-MSC |
| NLDPT | 16 | Packet Data Service Information | 2013-10-31 | updated 2G/3G QOS profiles |
| NLDPT | 20 | LTE Roaming Information | 2013-10-31 | updated LTE QoS Profile List |
| NLDPT | 5 | International SCCP Gateway | 2013-10-21 | updated SCCP connectivity information |
| NLDPT | 20 | LTE Roaming Information | 2013-10-21 | added LTE roaming information |
| NLDPT | 4 | Routing Information | 2013-09-30 | updated MNP MSISDN ranges + new NDC France for roaming hubbing service |
| NLDPT | 13 | Network Elements Information | 2013-09-19 | add voice mail system (only send SMS notification to KPN subscribers) |
| NLDPT | 13 | Network Elements Information | 2013-09-17 | updated the SMSC range +31653083* |
| NLDPT | 13 | Network Elements Information | 2013-09-12 | new SCP address range +3165305* has been added |
| NLDPT | 15 | CAMEL Information | 2013-09-12 | IN Home routing numbers +4178409*, +3631790* added (carrier: iBasis inc.) |
| NLDPT | 16 | Packet Data Service Information | 2013-08-28 | domain added in APN Operator Identifier |
| NLDPT | 15 | CAMEL Information | 2013-08-14 | new IN Home routing ranges added +3168019xxxx and +4178409xxxx |
| NLDPT | 17 | IP Roaming/Networking Information | 2013-07-19 | new GRX provider added (iBASIS) |
| NLDPT | 4 | Routing Information | 2013-07-08 | updated Additional Information with new NDC ranges of Roaming Hubbing Services |
| NLDPT | 16 | Packet Data Service Information | 2013-07-01 | ISP DNS IP addresses change from 62.133.126.28 and 62.133.126.29 into 194.151.228.2 and 194.151.228.50 |
| NLDPT | 21 | Contact Information | 2012-12-27 | added SMS Interworking contact details |
| NLDPT | 8 | Subscriber Identity Authentication | 2012-11-07 | KPN uses authentication cipher A5/1 and A5/3 |
| NLDPT | 9 | Test Numbers Information | 2012-11-07 | modified location of test number 31653101010 |
| NLDPT | 4 | Routing Information | 2012-10-09 | added new NDC +3197002 and +3197003 for M2M services |
| NLDPT | 9 | Test Numbers Information | 2012-07-31 | test number +31682991234 added |

**NETWORK**

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

| TADIG code: | NLDPT |
|---|---|
| **Network type:** | Terrestrial |
| **Presentation of country initials and MNN:** | KPN NL |
| **Abbreviated MNN:** | KPN |
| **Network colour code:** | 0 |

**NETWORK INFORMATION**

TADIG code: NLDPT
Section ID: 3 (Mandatory)

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

**ROUTING INFORMATION**

TADIG code: NLDPT
Section ID: 4 (Mandatory)
Effective date of change: 2013-11-20

| CCITT E.164 Number series | Country Code (CC) | National Destination Code (NDC) | SN Range Start | SN Range Stop | Primary International DPC | Secondary International DPC |
|---|---|---|---|---|---|---|
| **MSISDN number ranges (s)** | | | | | | |
| | 31 | 610 | 000000 | 999999 | | |
| | 31 | 612 | 000000 | 999999 | | |
| | 31 | 613 | 000000 | 999999 | | |
| | 31 | 620 | 000000 | 999999 | | |
| | 31 | 622 | 000000 | 999999 | | |
| | 31 | 623 | 000000 | 999999 | | |
| | 31 | 630 | 000000 | 999999 | | |
| | 31 | 651 | 000000 | 999999 | | |
| | 31 | 653 | 000000 | 999999 | | |
| | 31 | 657 | 000000 | 999999 | | |
| | 31 | 682 | 000000 | 099999 | | |
| | 31 | 682 | 100000 | 999999 | | |
| | 31 | 683 | 000000 | 999999 | | |
| | 31 | 6587 | 00000 | 99999 | | |
| | 31 | 6588 | 00000 | 99999 | | |
| | 31 | 6589 | 00000 | 99999 | | |
| | 31 | 97002 | 000000 | 999999 | | |
| | 31 | 97003 | 000000 | 999999 | | |
| **Network Nodes Global Title Number Range(s)** | | | | | | |
| | 31 | 653 | 000000 | 999999 | | |
| **MSRN Number Range(s)** | | | | | | |
| | 31 | 653 | 020000 | 049999 | | |

| E. 212 Number series | Mobile Country Code (MCC) | Mobile Network Code (MNC) |
|---|---|---|
| | 204 | 08 |

| E. 214 Mobile Global Title (MGT) | Country Code of MGT (CC) | Network Code of MGT (NC) |
|---|---|---|
| | 31 | 653 |

| Does Number Portability apply ? | Yes |
|---|---|

| USIM SIM Header | 893108 |
|---|---|

| E. 164 Number Ranges due to Number Portability | CC | NDC | SN Range Start | SN Range Stop |
|---|---|---|---|---|
| | 31 | 611 | 000000 | 999999 |
| | 31 | 614 | 000000 | 999999 |
| | 31 | 615 | 000000 | 999999 |
| | 31 | 616 | 000000 | 999999 |
| | 31 | 617 | 000000 | 999999 |
| | 31 | 618 | 000000 | 999999 |
| | 31 | 619 | 000000 | 999999 |
| | 31 | 621 | 000000 | 999999 |
| | 31 | 624 | 000000 | 999999 |
| | 31 | 625 | 000000 | 999999 |
| | 31 | 626 | 000000 | 999999 |
| | 31 | 627 | 000000 | 999999 |

| E. 164 Number Ranges due to Number Portability | CC | NDC | SN Range Start | SN Range Stop |
|---|---|---|---|---|
| | 31 | 628 | 000000 | 999999 |
| | 31 | 629 | 000000 | 999999 |
| | 31 | 631 | 000000 | 999999 |
| | 31 | 6320 | 00000 | 99999 |
| | 31 | 6321 | 00000 | 99999 |
| | 31 | 6322 | 00000 | 99999 |
| | 31 | 633 | 000000 | 999999 |
| | 31 | 634 | 000000 | 999999 |
| | 31 | 6350 | 00000 | 99999 |
| | 31 | 6351 | 00000 | 99999 |
| | 31 | 6352 | 00000 | 99999 |
| | 31 | 6359 | 00000 | 99999 |
| | 31 | 636 | 000000 | 999999 |
| | 31 | 6370 | 00000 | 99999 |
| | 31 | 6371 | 00000 | 99999 |
| | 31 | 6372 | 00000 | 99999 |
| | 31 | 6373 | 00000 | 99999 |
| | 31 | 6374 | 00000 | 99999 |
| | 31 | 6375 | 00000 | 99999 |
| | 31 | 638 | 000000 | 999999 |
| | 31 | 639 | 000000 | 999999 |
| | 31 | 640 | 000000 | 999999 |
| | 31 | 641 | 000000 | 999999 |
| | 31 | 642 | 000000 | 999999 |
| | 31 | 643 | 000000 | 999999 |
| | 31 | 644 | 000000 | 999999 |
| | 31 | 645 | 000000 | 999999 |
| | 31 | 646 | 000000 | 999999 |
| | 31 | 647 | 000000 | 999999 |
| | 31 | 648 | 000000 | 999999 |
| | 31 | 649 | 000000 | 999999 |
| | 31 | 650 | 000000 | 999999 |
| | 31 | 652 | 000000 | 999999 |
| | 31 | 654 | 000000 | 999999 |
| | 31 | 655 | 000000 | 999999 |
| | 31 | 6560 | 00000 | 99999 |
| | 31 | 6561 | 00000 | 99999 |
| | 31 | 6580 | 00000 | 99999 |
| | 31 | 659 | 000000 | 999999 |
| | 31 | 6800 | 00000 | 99999 |
| | 31 | 6801 | 00000 | 99999 |
| | 31 | 681 | 000000 | 999999 |
| | 31 | 684 | 000000 | 999999 |
| | 31 | 685 | 000000 | 999999 |
| | 31 | 6860 | 00000 | 99999 |
| | 31 | 6861 | 00000 | 99999 |
| | 31 | 6862 | 00000 | 99999 |
| | 31 | 6863 | 00000 | 99999 |
| | 31 | 6864 | 00000 | 99999 |
| | 31 | 6868 | 00000 | 99999 |
| | 31 | 687 | 000000 | 999999 |
| | 31 | 6888 | 00000 | 99999 |

| Additional Information |
|---|
| MMS port number is 5080 |
| The DNS GP1P and GP1S need to be queried when KPN subscribers are roaming in your network |
| The call forwarding to voicemail and IN Home Routing numbering can have a length of 15 digits |
| ----- KPN Roaming Hubbing Services ------ |
| MSISDN ranges which do not start with +31 are used by our Roaming Hubbing services of KPN. The following CC+NDC can be used for Roaming Hubbing Services |
| The below MSISDN ranges are the main ranges (which do not include the ranges for number portability in the respective country) |
| Austria 436889, 4368860, 4368861 |

| Additional Information |
|---|
| Belgium 324665, 324666, 324667 |
| Denmark 455069, 455063, 454290, 456098, 457196, 457197, 457198, 458137, 458138, 458139, 458146, 458147, 458148, 458149, 459126, 459127, 459128, 459129, 459157, 459225, 459226, 459227, 459228, 459229, 45923 |
| Finland 3584547 |
| France 33759, 337543 |
| Hungary 363178 |
| Poland 48720, 488811, 487298, 487299, 487391 |
| Portugal 3519230, 3519231, 3519232 |
| Somalia 25261 |
| Spain 346440, 346441, 346442, 346443, 346444, 346445, 346446, 346400, 346401 |
| Sweden 467265, 467267, 467268, 467319, 467698, 467699, 467212, 467213 |
| Switzerland 417698, 417699, 417840 |
| United Kingdom 4475202, 4474510, 4474511, 4474513, 4474514, 4474518, 4474519, 4474570, 4474571, 4474573, 4474575, 4474650, 4474651, 4475894, 4475895, 4475896, 4475897, 4475898, 4475899, 4478921 |

| Short Number Translation Information List | | |
|---|---|---|
| Short Number | Long Number | Service Name |
| 1200 | 31612001200 | customer service |
| 1233 | 31612001233 | voice mail |

**INTERNATIONAL SCCP GATEWAY**

TADIG code: NLDPT
Section ID: 5 (Optional)
Effective date of change: 2013-10-21

| International SCCP carrier list | |
|---|---|
| **SCCP carrier name:** | SCCP Carrier |
| **Connectivity information:** | Primary |
| **Comments:** | iBasis |
| **MNO TADIG code list:** | |

| DPC info: | |
|---|---|
| Signature: | ASD-STP2 |
| Type: | Stand_alone_ISTP |
| International DPC: | 2.9.0 |
| Comments: | iBasis Inc. |

| DPC info: | |
|---|---|
| Signature: | RT-STP2 |
| Type: | Stand_alone_ISTP |
| International DPC: | 2.9.1 |
| Comments: | iBasis Inc. |

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

TADIG code: NLDPT
Section ID: 7 (Optional)
Effective date of change: 2011-11-07

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

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

**SUBSCRIBER IDENTITY AUTHENTICATION**

TADIG code: NLDPT
Section ID: 8 (Optional)
Effective date of change: 2012-11-07

| 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 | |

**Test Numbers Information**

TADIG code: NLDPT
Section ID: 9 (Optional)
Effective date of change: 2012-11-07

| Number Type | Test Number | Location | Comments |
|---|---|---|---|
| AAC | 31653101010 | voice mail retrieval | Dutch announcement - will disconnect automatically |
| AAC | 31682991234 | The Hague | can be used for both voice and SMS |

**MOBILE APPLICATION PART (MAP)**

TADIG code: NLDPT
Section ID: 10 (Optional)
Effective date of change: 2011-12-01

**Interworking specifically for roaming**

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

**MAP Inter Operator SMS Enhancement**

TADIG code: NLDPT
Section ID: 12 (Optional)
Effective date of change: 2011-12-01

| **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 | |

**NETWORK ELEMENTS INFORMATION**

TADIG code: NLDPT
Section ID: 13 (Optional)
Effective date of change: 2013-10-30

| Node type | Node ID | GT address / Address range | IP address / Address range | Vendor info | SW / HW version | Dual access | Location | UTC offset | DST start | DST end |
|---|---|---|---|---|---|---|---|---|---|---|
| HLR | | 31 653080 0000 / 9999 | | Nokia | | | | +01:00 | | |
| HLR | | 31 653086 0000 / 9999 | | Huawei | | | | +01:00 | | |
| MMSC | | 31 6530871 000 / 999 | | | | | | +01:00 | | |
| MMSC | | 31 6530872 000 / 999 | | | | | | +01:00 | | |
| MMSC | | 31 6530873 000 / 999 | | | | | | +01:00 | | |
| MMSC | | 31 6530874 000 / 999 | | | | | | +01:00 | | |
| MSC/VLR | | 31 653021 0000 / 9999 | | Huawei | | | Amsterdam | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653025 0000 / 9999 | | Huawei | | 1 | Rotterdam 1 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653026 0000 / 9999 | | Huawei | | 1 | Rotterdam 2 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653028 0000 / 9999 | | Ericsson | | | | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653029 0000 / 9999 | | Huawei | | | | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653032 0000 / 9999 | | Huawei | | 1 | Arnhem 1 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653035 0000 / 9999 | | Huawei | | 1 | Amsterdam 1 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653036 0000 / 9999 | | Huawei | | 1 | Amsterdam 2 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653037 0000 / 9999 | | Ericsson | | | | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653038 0000 / 9999 | | Huawei | | | | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653040 000 / 999 | | Huawei | | 1 | Arnhem 2 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653042 000 / 999 | | Huawei | | 1 | Arnhem 3 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653043 000 / 999 | | Huawei | | 1 | Amsterdam 3 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 653045 000 / 999 | | Huawei | | 1 | Rotterdam 3 | +01:00 | | |
| MSC/ VLR-2G+3G | | 31 6530831 000 / 999 | | | | | | +01:00 | | |
| Other | | 31 653088 6000 / 9999 | | Voice Mail System | | | | +01:00 | | |
| SCP | | 31 65305 30000 / 39999 | | | | | | +01:00 | | |
| SCP | | 31 65309 40000 / 99999 | | | | | | +01:00 | | |
| SGSN-2G+3G | | 31 653077 0000 / 9999 | | Huawei | | 1 | | +01:00 | | |
| SGSN-2G+3G | | 31 653078 0000 / 9999 | | Huawei | | 1 | | +01:00 | | |
| SMSC | | 31 65307 00000 / 99999 | | Acision | | | | +01:00 | | |
| SMSC | | 31 653083 1000 / 3999 | | Acision | | | | +01:00 | | |
| SMSC | | 31 65309 00000 / 99999 | | Acision | | | | +01:00 | | |
| SMSC | | 31 6531 00000 / 99999 | | Acision | | | | +01:00 | | |

**USSD Information**

TADIG code: NLDPT
Section ID: 14 (Optional)
Effective date of change: 2011-11-07

| | |
|---|---|
| **USSD capability available** | Yes |
| **Supported phase** | Phase 1 |

**CAMEL INFO**

TADIG code: NLDPT
Section ID: 15 (Conditional)
Effective date of change: 2013-09-12

| gsmSSF/MSC | | | |
|---|---|---|---|
| **CAP Version supported (Inbound)** | | **CAP Version supported (Outbound)** | |
| **CAPv1 CAPv2** | | **CAPv1** | |
| **CAMEL Functionality Information** | | | |
| **Service(s) Name** | **SK** | **CAP Version** | **SCP GT addresses** |
| Prepaid | 11 | CAPv1 | 316530989700 |
| Postpaid | 9 | CAPv1 | 316530989700 |
| Mobile VPN | 4020 | CAPv1 | 316530969500 |
| **CAPv4 Partial Implementations** | | | |
| **CAMEL Phase 4 CSIs:** | | **Supported (Yes / No)** | *Planned Date* |
| **O - CSI** | | | |
| **D - CSI** | | | |
| **VT - CSI** | | | |
| **MT - SMS - CSI** | | | |
| **Functionalities:** | | **Supported (Yes / No)** | *Planned Date* |
| **Initiate Call Attempt** | | | |
| **Split Leg** | | | |
| **Move Leg** | | | |
| **Disconnect Leg** | | | |
| **Entity Released** | | | |
| **DFC With Argument** | | | |
| **Play Tone** | | | |
| **DTMF Mid Call** | | | |
| **Charging Indicator** | | | |
| **Alerting DP** | | | |
| **Location At Alerting** | | | |
| **Change Of Position DP** | | | |
| **OR Interactions** | | | |
| **Warning Tone Enhancements** | | | |
| **CF Enhancements** | | | |
| | | | |
| **CAPv4 Partial Implementations** | | | |
| **CAMEL Phase 4 CSIs:** | | **Supported (Yes / No)** | *Planned Date* |
| **MT - SMS -CSI** | | | |
| **MG - CSI** | | | |
| **PSI Enhancements** | | | |

**CAMEL Rerouting Numbering**

31653XXXXXXXXXX
3168019xxxx
4178409xxxx
36317900xxx
363179098xx

**Packet Data Services Information**

TADIG code: NLDPT
Section ID: 16 (Conditional)
Effective date of change: 2013-10-30

| List of APN Operator Identifiers | | |
|---|---|---|
| **APN Operator Identifier** | **Description** | **Example** |
| mnc008.mcc204.gprs | | |
| mnc008.mcc204.3gppnetwork.org | 4G LTE | |

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

| APN WEB List | | | | |
|---|---|---|---|---|
| **APN Credential** | | | **ISP DNS IP address (primary)** | **ISP DNS IP address (secondary)** |
| **APN** | **Username** | **Password** | | |
| internet | | | 194.151.228.2 | 194.151.228.50 |

| APN WAP List | | | | | | |
|---|---|---|---|---|---|---|
| **APN Credential** | | | **WAP Gateway** | **WAP Server URL** | **WAP Port ver 1** | **WAP Port ver 2** |
| **APN** | **Username** | **Password** | **IP address** | | | |
| portalmmm.nl | | | 10.10.100.10 | http://mobileportal/ | 8080 | |

| APN MMS List | | | | |
|---|---|---|---|---|
| **APN Credential** | | | **WAP Gateway IP address for MMS** | **Messaging Server URL** |
| **APN** | **Username** | **Password** | | |
| portalmmm.nl | | | 10.10.100.20 | http://mp.mobiel.kpn/mmsc |

| 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:** | Web Browsing |
| Traffic class: | Interactive |
| ARP: | 2 |
| Evolved ARP: | 9 |

| GTP Version | |
|---|---|
| **SGSN** | GTPv1 |
| **GGSN** | GTPv1 |

**List of Data Service supported**

| Data Service | Multislot Class Capability |
|---|---|
| GPRS | |
| HSDPA | |
| HSUPA | |
| 3G PS | |

| Multiple PDP Context Support | |
|---|---|
| Number of Primary PDP Context | Not supported |

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

TADIG code: NLDPT
Section ID: 17 (Conditional)
Effective date of change: 2014-02-06

| List of All IP address ranges used by PMN for connection to inter - PMN IP backbone | IP Address Range |
|---|---|
| | 145.7.74.0/23 |
| | 145.7.46.0/23 |
| | 145.7.74.0/25 |
| | 145.7.74.128/25 |
| | 145.7.75.0/25 |
| | 145.7.75.128/25 |
| | 145.7.44.0/25 |
| | 145.7.44.128/25 |
| | 145.7.45.0/25 |
| | 145.7.45.128/25 |
| | 145.7.46.0/25 |
| | 145.7.46.128/25 |
| | 217.18.36.0/27 |
| | 62.41.64.96/29 |
| | 82.113.69.0/26 |
| | 80.74.229.0/24 |
| | 62.179.110.160/29 |
| | 62.179.110.152/29 |
| | 62.179.111.160/29 |
| | 62.179.111.152/29 |
| | 62.41.64.8/29 |
| | 145.7.44.0/23 |
| | 95.81.167.32/29 |

| *RAI Additional MCC/MNC List* | MCC | MNC |
|---|---|---|

| *ULI Additional MCC/MNC List* | MCC | MNC |
|---|---|---|

| List of Autonomous System Number (ASN): | ASN |
|---|---|
| | 1134 |
| | 64595 |
| | 15954 |
| | 64550 |
| | 39477 |
| | 20933 |
| | 6830 |
| | 43646 |

| *List of PMN authoritative DNS server IP addresses and names* | IP address | DNS Name |
|---|---|---|
| | 145.7.74.188 | GP1P (foreign SGSN queries KPN DNS) |
| | 145.7.75.188 | GP1S (foreign SGSN queries KPN DNS) |

| List of PMN local caching DNS server IP addresses and names | IP address | DNS Name |
|---|---|---|
| | 145.7.44.154 | GN1P (KPN SGSN queries foreign DNS) |
| | 145.7.44.158 | GN1P (KPN SGSN queries foreign DNS) |
| | 145.7.44.170 | GN1P (KPN SGSN queries foreign DNS)GN1P (KPN SGSN queries foreign DNS) |
| | 145.7.44.174 | GN1P (KPN SGSN queries foreign DNS) |
| | 145.7.44.186 | GN1P (KPN SGSN queries foreign DNS) |
| | 145.7.44.190 | GN1P (KPN SGSN queries foreign DNS) |
| | 145.7.44.202 | GN1P (KPN SGSN queries foreign DNS) |
| | 145.7.44.206 | GN1P (KPN SGSN queries foreign DNS) |

| *IP addresses that respond to ping / traceroute:* | 145.7.74.9 |
|---|---|

| List of GRX Providers | GRX Provider |
|---|---|
| | iBasis<br>Belgacom<br>Comfone |

| List of GRX Providers | GRX Provider |
|---|---|

**LTE Roaming Information**
TADIG code: NLDPT
Section ID: 20 (Optional)
Effective date of change: 2013-11-01

**Roaming Interconnection**

| IP Addresses Diameter Edge Agent | IP address(es) |
|---|---|
| | 145.7.112.4 |
| | 145.7.112.5 |
| | 145.7.112.36 |
| | 145.7.112.37 |
| | 145.7.112.68 |
| | 145.7.112.69 |
| | 145.7.112.100 |
| | 145.7.112.101 |

| S6a Supported without IWF | S6a MAP IWF supported to HSS | S6a MAP IWF supported to MME |
|---|---|---|
| true | false | false |

| S6d used for legacy SGSN | S8 GTP interface available | S8 PMIP interface available |
|---|---|---|
| false | true | false |

| S6a hostnames |
|---|
| epc.mnc008.mcc204.3gppnetwork.org |

| S9 hostnames PCRF list | |
|---|---|
| | not available |

| S9 used for PCC | |
|---|---|
| | false |

**SMS ITW**

| SMS delivery over IP | SMS delivery over SGs |
|---|---|
| false | true |

| Voice ITW |
|---|
| CSFB |

**Roaming Retry**

| Is Roaming Retry supported? | No |
|---|---|

| | | HPMN | VPMN |
|---|---|---|---|
| **LTE Roaming Agreement Only** | LTE Only Roaming Supported | No | No |
| **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 | Yes | No |
| | Scenario 4 Supported | No | No |

| List of LTE QOS profiles | |
|---|---|
| **Profile name:** | Web Browsing |
| QCI: | 7 |
| ARP: | 6 |

| IPv6 Connectivity Information | | |
|---|---|---|
| | IPv6 PDP Supported | IPv4v6 PDP Supported |
| **MME Support** | No | No |
| **SGW Support** | No | No |
| **PGW Support** | No | No |

**Information for Diameter certificates exchange**

| LTE Information | |
|---|---|
| QCI Value 1 Supported | No |
| QCI Value 2 Supported | No |
| QCI Value 3 Supported | No |
| QCI Value 4 Supported | No |
| QCI Value 5 Supported | No |
| QCI Value 6 Supported | No |
| QCI Value 7 Supported | Yes |
| QCI Value 8 Supported | No |
| QCI Value 9 Supported | No |

**CONTACT INFORMATION**

TADIG code: NLDPT
Section ID: 21 (Optional, Repeating)
Effective date of change: 2011-11-03

| List of Roaming Troubleshooting Contact Information | | | |
|---|---|---|---|
| **Roaming Troubleshooting Contact Information** | | | |
| **Location** | | Hilversum/ The Hague | |
| **Office Time Zone in UTC** | | +01:00 | |
| **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.** | **Fax** | **Email** |
| Technical Support | 31703438133 | | internationalroaming@kpn.com |

| **Escalation Contact for Troubleshooting** | | | |
|---|---|---|---|
| **Person Name** | **Tel.** | **Fax** | **Email** |
| Network   Operation Centre | 31704462100 | | |

| **24 x 7 Troubleshooting (contact out of Office Hours)** | | | |
|---|---|---|---|
| **Team Name** | **Tel.** | **Fax** | **Email** |
| Network Operation Centre | 31704462100 | | |

**Additional Contacts**

**SCCP Inquires and ordering of SS7 Routes**

| **Person Name** | **Tel.** | **Mobile** | **Fax** |
|---|---|---|---|
| i   Basis | 17815057551 | | 17815057300 |
| **JobTitle** | **Email** | | |
| SCC- International Service Control Centre 24h | support@ibasis.net | | |

**Roaming Coordinator**

| **Person Name** | **Tel.** | **Mobile** | **Fax** |
|---|---|---|---|
| Mr   Marco   Hanen | 31703432105 | | 31703435585 |
| **JobTitle** | **Email** | | |
| Roaming Coördinator | roaming@kpn.com | | |

**IREG Tests**

| **Person Name** | **Tel.** | **Mobile** | **Fax** |
|---|---|---|---|
| IREG   Test team | | | |
| **JobTitle** | **Email** | | |
| IREG Test team | birin011@kpn.com | | |

**TADIG Tests**

| **Person Name** | **Tel.** | **Mobile** | **Fax** |
|---|---|---|---|
| Tadig   Test team | | | |
| **JobTitle** | **Email** | | |
| Tadig Test team | roamingbilling@kpn.com | | |

**Other contact(s)**

| **Person Name** | **Tel.** | **Mobile** | **Fax** |
|---|---|---|---|
| Customer   Care | 31505885899 | | 31503188559 |
| **JobTitle** | **Email** | | |
| Inter Operator Customer Care | | | |
| **Person Name** | **Tel.** | **Mobile** | **Fax** |
| Interworking   SMS | 31703432105 | | |
| **JobTitle** | **Email** | | |
| Wholesale Interconnect & Roaming | roaming@kpn.com | | |

| **IR21 Distribution Email Address** | **Email** |
|---|---|
| | roaming@kpn.com |

**SECTIONS NOT IN USE**

| TADIG Code | Section ID | Section Name |
|------------|------------|--------------|
| NLDPT | 6 | Domestic SCCP Gateway |
| NLDPT | 11 | MAP Optimal Routing Section |
| NLDPT | 18 | MMS Interworking Information |
| NLDPT | 19 | WLAN Information |
| NLDPT | 22 | Hosted Networks |