



Iskratel Regulatory and Government Solutions

Number Portability Solution

Why Iskratel?

Iskratel provides a complete solution for the simple and fast implementation of the Number Portability mechanism that fits into mobile as well as into fixed networks.

Key factors of Iskratel's Number Portability solution:

- For mobile and fixed operators
- For TDM, NGN and IMS
- High scalable
- Cost effective
- Multi-signaling support (ISUP, INAP, CAP, CSTA, SIP/ISC)

Nowadays users of telecommunication services searching for new services expect high flexibility regarding changing service providers. So regulatory bodies issue directives to assure fair conditions for all players in telecommunication world.

Number portability is ability to change a service provider, a physical location or a type of service while retaining the existing subscriber's telephone number. When number portability is required by a country's regulatory agency it is an obligation for all operators.

To set up a connection to a ported subscriber, the system must have up-to-date information about the subscriber's new operator/location. This information is usually kept centrally in NP server. There is usually one national reference NP database server and additionally each operator has its own NP server with mirrored national reference NP database. Thus different levels of NP solution are distinguished:

- Country level: regulatory agency defines interconnection requirements, network routing numbers, porting scenarios, etc.
- Administrative level: central reference number portability data base, web tools for supporting administrative part of porting process, synchronization interfaces API forward operators, etc.
- Operator level: NP application server, synchronization interfaces API toward Central Refer-

ence NP DB, implementation of required triggering methods on network elements, routing, billing, provisioning adaptation, etc.

ISKRATEL APPROACH

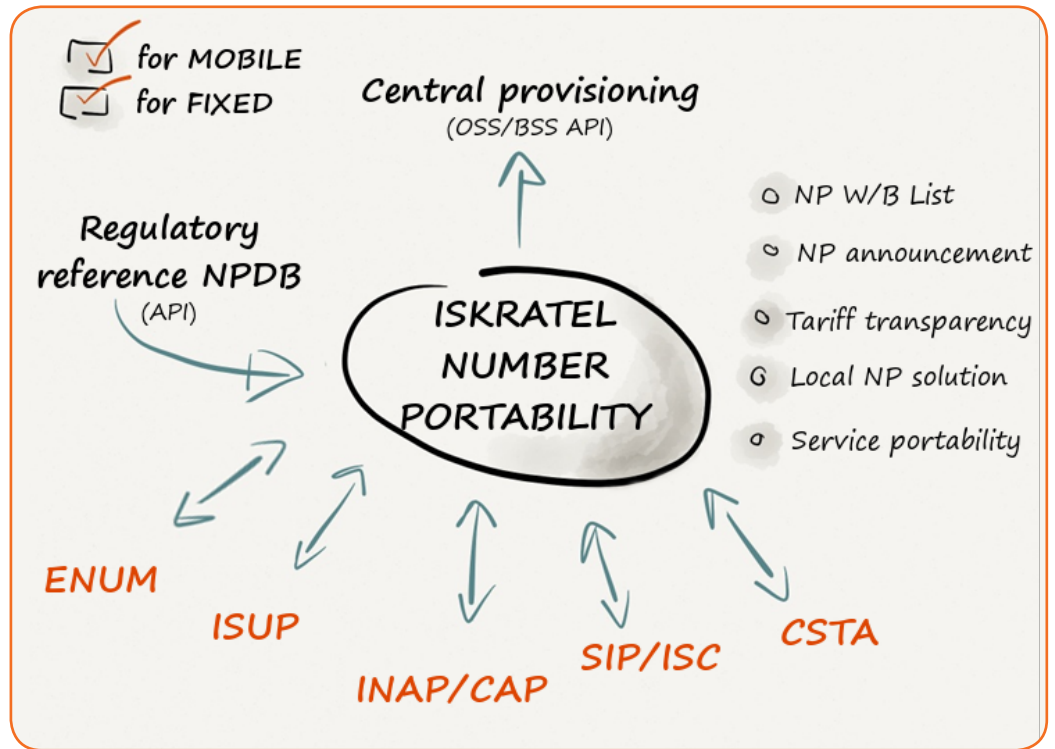
Number portability is a complex network solution. Each country and each operator has a specific and unique situation. In any case Iskratel has all the necessary building blocks to offer a solution in a way that fits either into the mobile operator's network or into the fixed operator's network, and fulfill the regulatory requirements. Iskratel building blocks cover the administrative part of the NP solution and fulfill all requirements from the operator's level. Iskratel's NP solution is a cost-effective and a flexible solution that can be used not only for service provider portability and location portability but also for service portability – end-users keep the telephone number when they change the type of telecommunications service (e.g., from POTS to NGN/VoIP or IMS). Therefore it can be used as a powerful tool in a network modernization process.

Because of its flexible design this solution can be easily extended with special regulatory features such as tariff transparency, NP announcements or white/black lists.

Iskratel SI3000 Call Server guarantees easy and most reliable migration from TDM to IP and IMS.

Operator benefits:

- Easy integration in the existing network and in the existing IT infrastructure
- Unique scalability from very low to high-end configurations
- All regulatory requirements fulfilled
- Powerful tool for network modernization
- Open for further enhancements



End user benefits:

- Freedom to change operators without changing phone numbers
- Easy changing operators following desired services
- Keeping the existing number when moving to other location

MODE OF OPERATION

Iskratel's NP solution supports four modes of operation.

- Standard ETSI IN NP solution for large networks based on the INAP protocol between SI3000 CS acting as SSP and SCP.
- Solution based on Iskratel's Number Portability Application Server with a variety of network signaling protocols (INAP, CAP, CSTA, ISUP, SIP), synchronization interfaces API toward Central Reference NP DB, and SOAP/REST interfaces toward central provisioning system (OSS/BSS)
- IMS oriented solution based on SIP/ISC protocol between SI3000 IMS and SIP NP Application Server
- ENUM based Number Portability for VoIP and IMS networks

Iskratel's NP solution supports the following methods:

- All Call Query (ACQ) – interrogating external database of transferred numbers for every call.
- Query On Digit Analysis (QoD) - interrogating external database of transferred numbers for calls which meet certain conditions.
- Query On Release (QoR) – interrogating external database on call release.
- Onward Routing – (OwR) is used for local calls to moved numbers in case there is no connectivity to IN SCP (or AS).

Iskratel Number Portability Solution is verified and proven by different regulatory bodies, institutes and standardization organizations. Interoperability tests were made with other equipment vendors. The solution is successfully in operation at many incumbent as well as alternative operators.

ISKRATEL Group

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