

# Quadon NP

## Local Number Portability

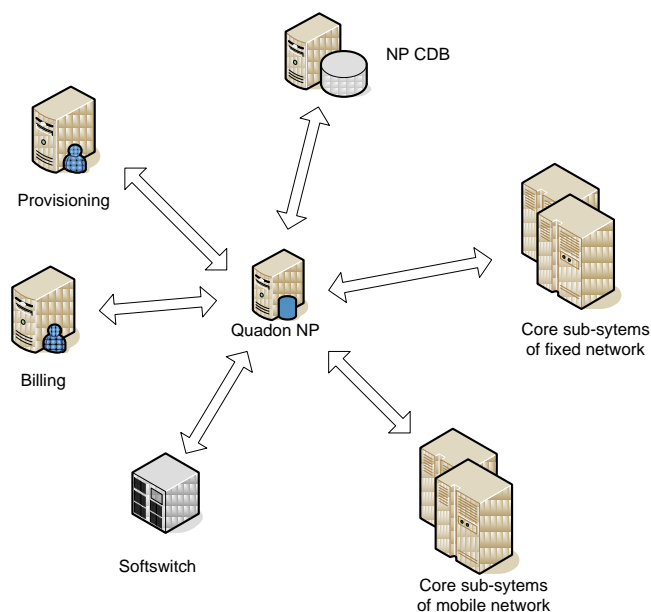
Is national telecommunication regulator introducing number portability and you are obliged to connect to the central number portability database?

Do you need a secure system that will manage all needed number portability processes between the central number portability database and your billing/provisioning system?

Do you need a reliable local number portability system with All Call Query (ACQ), Query on Release (QoR) and Onward Routing (OR) routing schemas support that can instantly answer all routing queries of your core network elements like MSC, HLR/VLR, IN, soft-switch, and more ?

### What is Quadon NP ?

Quadon NP is a complete local number portability solution for network operators that perfectly fits into the existing network operator's infrastructure. Quadon NP platform provides all required interfaces for fast and cost-effective integration of number portability system with all core sub-systems for fixed and mobile networks. Quadon NP interacts with central number portability database (CDB) and all operators' systems that require information about the ported numbers and their changed routing information.



## Quadon NP and number portability management

Quadon NP solution is connected and synchronized with the CDB at all time. It connects to the CDB over reliable VPN tunnel, synchronizes with CDB and receives other CDB events using machine-to-machine language (web services) defined by the CDB provider. An additional layer of security can be used with encryption on TCP level such as HTTPS (SSL) and the authentication using electronic signatures and server and client certificates.

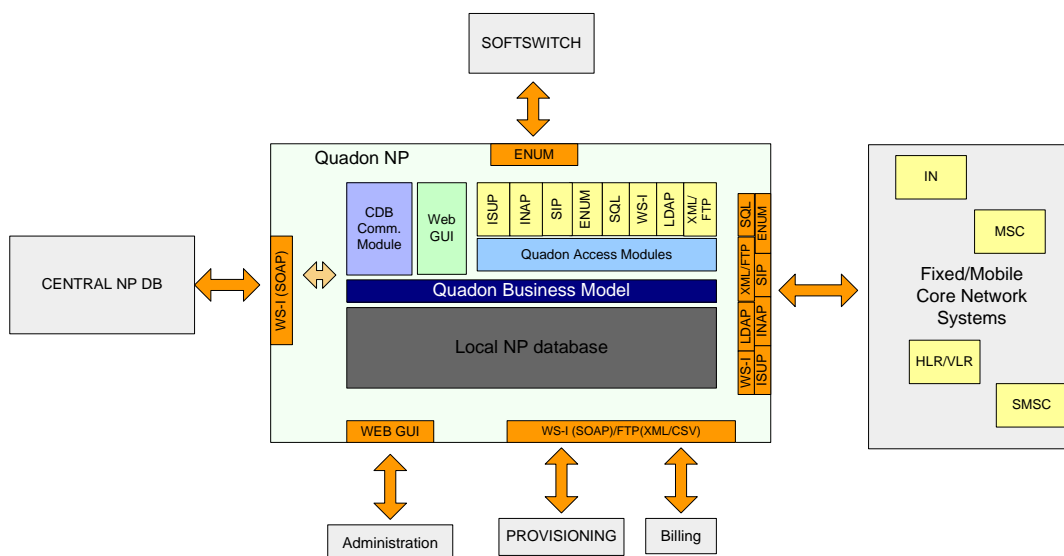
The download of data is performed over different protocols as HTTP (WS-I), FTP and other. When CDB notifies Quadon NP system that specific mobile or fixed number will be ported, Quadon NP stores information in local database, it notifies provisioning and other relevant systems about the scheduled number porting, together with the porting details and expected porting date. Quadon NP stores complete up to date lists of all ported numbers and numbers that will be ported in the following days (TODO list) in its local database. Data is available and can be accessed through **web service (WS-I), SIP, SQL** and **LDAP** interface. Data can be automatically exported to XML files and available through the FTP for download.

Provisioning system connects to the Quadon NP system using provided WS interface for synchronous and asynchronous communication. Provisioning system retrieves the data of ported numbers using specified synchronous web service calls or it can also be notified by the Quadon NP system when new number porting event appears. Quadon provisioning web services are always tailored to fit specific needs, specifications and requirements of the operator's provisioning system.

## Quadon NP and call query

Quadon NP connects with SSP and SCP elements of the operator's fixed and mobile network and provides detailed routing information for porting numbers. SSP and SCP elements further use this information to correctly route calls to numbers that have been ported and also to generate proper CDR files.

Operator's core systems as MSC, HLR, VLR, IN and SMSC can connect and query Quadon NP through different interfaces like **ENUM, SIP, LDAP, ISUP, INAP, WS-I** and **SQL**.



Quadon NP has a great support of call queries for different core network systems. MSC, HLR and VLRs can query Quadon system through ISUP, ENUM or ISUP interface. IN and SMSC/MMS systems can query through INAP and MAP interface. Using Quadon's SIP interface system can be well integrated into the operator's NGN/IMS infrastructure. Soft-switch can send routing queries for different destination numbers through SIP, ENUM (DNS routing queries), SQL or WS interface.

Operator's billing system can send additional queries against the number portability system to retrieve all needed information for successful charging of calls, messages and other events. Quadon system generates CDR records for every SSP or SCP inquiry, regardless of the interface being used. CDR records contain all needed billing information for successful call charging. What CDR parameters are written in CDR records and a format of CDR records can be configured on the system. All billing queries and data can be retrieved over WS and SQL interface, or can be downloaded in XML or CSV formats over FTP or SFTP protocol. Quadon billing web services and XML/CSV data formats are tailored to fit specific needs, specifications and requirements of the operator's billing system.

## Why Quadon NP ?

Quadon NP is a complete local number portability solution that enables operators to manage all required number portability processes with central number portability database, easily integrate number portability system with billing/provisioning system and execute call queries through number of supported interfaces and protocols - SIP, ENUM, LDAP, ISUP, INAP, SQL and WS-I.



Quadon NP system is designed as an adaptive infrastructure solution to provide a stable, secure, expandable and high availability platform. All vital hardware components are duplicated and configured in HA cluster composition to avoid single point of failure. To improve system capabilities, service response times, or capacity additional nodes can be seamlessly added.

**Choose Quadon and establish complete local number portability today!**



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