



# Number Portability

**Number Portability is a breakthrough in convenience for end-users, who can switch providers when they want without the hassle and expense of changing phone numbers.**

Number Portability (NP) is the reassignment of an existing telephone number from one local exchange carrier (LEC) to another LEC, while referring to the same physical connection. Mobile Number Portability (MNP) is the equivalent term for mobile phones.

Number Portability became common with the advent of alternative telcos. Since in most countries before portability operators were provided with different prefix codes, changing one's operator required changing one's number. Some operators, particularly incumbent operators with large existing subscriber bases, have argued against portability on the grounds that providing this service incurs considerable overheads, whilst market entrants tend to argue that it prevents lock-in and allows them to compete fairly on price and service. Due to these conflicting interests, number portability is usually mandated for all operators by regulatory authorities because the ability to keep a number while switching providers is attractive to consumers.

Number Portability can be made complex by many factors. Historically, numbers were assigned to various operators in blocks. The operators then provided these numbers to the subscribers of telephone services. Numbers were also recycled in blocks. In a fixed line environment, when every telecommunications consumer was connected to the same infrastructure, phone numbers could easily be assigned in blocks. In a wireless environment, portability increases the granularity of number designation operations, increasing complexity and workload.

The regulatory authorities of each country have defined several procedures. Typically, a Number Portability Administration Centre (NPAC) handles porting issues. This NPAC is a database that is designed to take information from both the incumbent and new service providers, validate that information and download the new routing information when an 'activate' message is received, indicating that the customer has been physically connected to the new service provider's network.

The Artilium Number Portability solution, as part of the ARTA CMS, can help unlock this difficult requirement. A list that contains the required information per number or number range allows operators to manage number portability issues in real time.

## The Artilium Number Portability Services software includes:

### Local Number Portability (LNP)

Routes calls to wireline numbers that have been ported to other service providers using the Location Routing Number (LRN).

### Wireless Number Portability

Enables customers to change wireless providers and retain their current mobile numbers. Similar to LNP, Artilium's solution provides routing information whenever mobile users call ported wireline or mobile numbers.

### Managing Porting

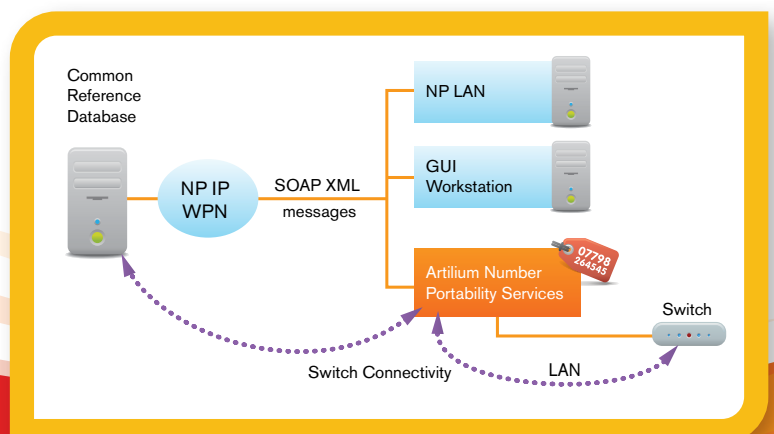
Operators that are working with a centralized database model (such as that found in the Netherlands) can connect to the Artilium platform. The database environment provides regular time-stamps, an updated file or a real-time connection directly between the regulatory database and the Artilium environment.

This connection is based on SOAP-XML messages over HTTPS. All these messages are held by the Artilium platform and are instantly available to their corresponding network.

Operators can choose to put this information onto their own switch - this is done by an Artilium application program which updates the correct table in the switch on a regular basis as illustrated below: The Artilium Number Portability Solution isn't only about the porting itself but is also a key in routing and rating of: mobile, fixed, postpaid, prepaid and voice calls.

### Benefits of the Artilium Number Portability solution:

- Fully modular to support any business model and long-term requirements.
- Operationally flexible within a unique database.
- Scalable.
- Operates in real time.





**Artilium is the leading developer of Microsoft-based carrier-grade software for mobile networks.**

Artilium's ARTA Mobile Services Platform is an open, modular, highly extensible Next Generation Service Delivery Platform built on Service Oriented Architecture principles and designed to enable rapid creation of new mobile applications, packaged as services, throughout their lifecycle.

ARTA activates the coming wave of third-party application development and innovation. By providing open and secure access to mobile network functionality and autonomous software processes, ARTA enables infinite possibilities for intelligent mashups which combine network capabilities of presence, mobility, location and telephony; with Web services including advertising, social networking and search.

Based in Belgium with offices in the United Kingdom, Artilium is a publicly listed company on the London Stock Exchange (LSE/AIM: ARTA). The company was founded in 1995 and has completed more than 40 installations serving tens of millions of end-users in 11 countries.

