

PortingXS is proud to present N-Base, a service that allows our customers to better manage the processes dealing with the national numbering plan.

With the ongoing liberalization of the telecommunication market, regulators and operators have been confronted with new/additional challenges regarding number management. They face rather complex issues when dealing with number management, such as:

- What is my **domain** (overall national numbering plan)?
- Whom did I issue what **number** to?
- What have been the **conditions** attached to these issued numbers?
- What different **types** of numbers do I have?
- What is the **status** of each number (reserved, issued, available, etc.)
- What has been **communicated** with the operator?

The N-Base solution is designed to anticipate these questions and to optimize and automate communication between the regulator and the operators. Through the system, application can be automated, reports can be generated and alerts can be configured. This will help both regulator as well as operators to better anticipate and plan ahead as well as simplify and speed up processes.

The national numbering plan is becoming more and more complex. New types of numbers are being issued, existing numbering plans may no longer suffice, and business rules may change. Some of the actual use cases are:

- A new numbering range for machine-to-machine (M2M) solutions
- Implementation of number portability
- An overview of available numbers/number ranges
- Dependency with umbrella numbering plans (e.g. North American Numbering Plan)

N-Base allows regulators to start optimizing the number processes before introducing Number Portability

Customers using Inports® as number portability solution knew already that a number of number management functions have been implemented. All these functions are of interest for operators. For regulators however the functionality is not enough. For that reason PortingXS has developed N-Base and has added process functionality from a regulatory point of view. Basic functionality includes order/entry, allocation, reservation, assignment, the administrative workflow and control of the national numbering plan. Extensive reporting also belongs to the basic functionality. Needless to say that N-Base can be fully integrated with Inports® - The Number Portability solution.

The application is web based with personalized logins with authority levels for different groups of users. The solution is 24/7 available, except for planned maintenance. Staff can upload the information in line with the specification as defined by the regulator, by using the web GUI.

The information in the system is shown to the authorized people, in the GUI or in a report. The information will be validated once it is submitted (real time), after which it is forwarded in the specified format by email to the specified party. Maintaining information (data retention) is core functionality.

The complete numbering plan of a country is part of our core application. This also includes toll free and premium rate numbers. All information necessary can be added to the database. For the synchronization of the databases of the Service providers, daily downloads are available from the GUI. These downloads can also be delivered by email, email notifications or file transfer protocol (FTP). Other, additional information can be made available for downloading from the site. After specification, periodic or ad-hoc reports are available from the system. User management and different authorization levels are part of the functionality.

The system provides the users with a couple of very simple yet extremely useful tools that will help them optimize their processes. The benefits of the system are:

- **Modular** set-up, can easily be integrated with Inports® and other additional services
- Local or central **hosting** possible
- Extensive **report** facilities
- Provides input for **mediation and routing**
- Supports a wide variety of **file formats, protocols** and mark up languages (e.g. .csv, XML)
- Graphical User Interface (GUI) is very **user-friendly**
- **Monitoring, forecasting** as well as setting thresholds for numbers

Functionalities of N-Base include:

- **Requests**; the entire process from requesting a number (by the operator) until allocation and administration (by the regulator). Of course, the reverse process (recalling or returning numbers) is also covered
- **Numbering plan**; overview of entire (national) numbering plan, including status
- **Reporting**; various standard reports as well as report-builder
- **Search**; the ability to search the database, using different fields/methods
- **Management**; depending on user rights, different elements related to the data can be managed here, such as (but not limited to):
 - Standard letters
 - User rights
 - Costs
 - Configuration parameters

It goes without saying that the reporting functionality provides you with almost infinite flexibility. However, to get you up-to-speed in no time, some reports have been pre-configured. Examples are:

- Overview of requests and their status
- Overview of numbers/number ranges and their status
- Overview of national numbering plan with available/used numbers/number ranges
- Financial reporting
- SLA reporting
- Dashboard reporting
- Workload reporting



In summary, N-Base is an excellent starting point for a regulator and can be used as a stepping-stone before introducing Number Portability. It will help the regulator to automate and solidify processes around number management in order to better facilitate the various stakeholders and anticipate future developments. For operators, it will help them get a better grip on their own numbers. N-Base is the tool that will help regulators to keep track of their numbers!



PortingXS is an organisation that supports the telecommunications sector in every region of the world with far reaching professionalisation and efficient service design. **PortingXS is an independent party that operates on behalf of all affiliated providers.** Client-specific interfaces for Number Portability, CRM, billing and routing systems are managed on a daily basis by the PortingXS technical helpdesk. Additionally, it takes opportunities, consults with parties and in this way supports the innovation of the telecommunications market.

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