



## ACCESS AND SESSION MANAGEMENT

### Product Data Sheet

# Number Portability (NP)

#### **Business Benefits**

- Combined Number Portability (NP) solution for multi-technology networks (fixed, 2G, 3G, 4G, 5G).
- Centralizes and simplifies NP, lowering complexity and cost.
- Supports wide range of external NP database referral queries.
- Massive capacity, high reliability.
- Can replace other vendors' complex and expensive NPAC solutions at a tenth of the price.

## Product Data Sheet Number Portability (NP)

### + The Challenge

Fixed-line local number portability (LNP) and 2G/3G/4G/5G mobile number portability (MNP) are facts of life in today's global networks. Carriers and operators experience both cost and quality problems as they deal with routing calls and messages to the wide range of ported numbers they must support.

Managing number portability is further complicated by the increasing complexity of maintaining multiple generations of network technology simultaneously, each with their own number portability needs and access technologies.

The solution to all of this lies in simplifying number portability by centralizing the network solution for it and then using this single source of truth to discover, in advance of routing, if a given dialed number (fixed, 3G, 4G or even 5G) has been ported. This allows a call, session, or message to that number to be routed accurately.

### ⌵ The Titan.ium Solution

Titan.ium's Number Portability (NP) is a single unified and centralized NP solution that can serve all the number portability needs of the network, no matter how many access technologies are deployed across it. All fixed line, 2G, 3G, 4G and soon, 5G technologies are simultaneously and seamlessly supported.

#### Any Signaling Protocol

Titan.ium NP enables access to number portability for every generation of network and protocol:

- AIN and INAP
  - Portability correction for fixed-line switching platforms.
- MAP, CAP, WIN, and PCS-1900
  - Portability correction for 2G/3G mobile switching platforms and messaging applications.
- ENUM and SIP
  - Portability correction for IMS and 4G/LTE platforms.

#### Any Data Source

Titan.ium's NP handles the complexity, selecting the right data sources for the inquiring network/technology and delivers consistent and complete results every time:

- Local Data
  - Existing data source: Real-time or file-based provisioning of portability-data and code-range data from existing local data sources.
- External Referral Data
  - MAP referral query to an HLR to discover a portability-corrected MSISDN.
  - INAP, CAP, AIN referral query to an existing IN-SCP to obtain portability-data.
  - ENUM referral query (RFC 4769, RFC 4694) to country-specific number portability.

## Product Data Sheet Number Portability (NP)

### ⊖ The Titan.ium Solution (continued)

#### **Any Routing Number Format**

Portability data that crosses national boundaries requires modification or normalization of the routing number format from each country-specific data source into a format that works for the originating carrier or operator. Titan.ium's NP gives customers the ability to easily provision one or more translation tables to define custom routing number formats.

### ⊕ Business Benefits

By combining many domain-specific legacy number portability systems into a single centralized NP solution, Titan.ium's NP allows service providers to both centralize and simplify their core architecture, decreasing complexity and increasing reliability. OPEX is conserved through this unification and centralization of NP functions, and a common source of NP truth is established in the network.

Titan.ium's NP is delivered on Titan.ium's Titan platform, field hardened and in-service with the world's top 10 telecom operators. NP has the brute strength to meet the needs of even the most demanding telecom network, with capacities up to many thousands of TPS. All of that capacity is protected by a telecom-grade architecture that assures non-stop network operation. NP is available in both hardware and VM form factors, enabling it to be optimally fitted into any existing network implementation framework.

### 🔧 Key Capabilities

#### **Multi Technology Network Access – Centralize, Simplify**

Titan.ium's NP simultaneously supports network queries from Fixed Line, 2G/3G, 4G/LTE and 5G. This comprehensive front-end support allows operators to collapse multiple different technology-specific number portability solutions down to one centralized and unified number portability solution, reducing OPEX and providing one source of NP truth in the network.

#### **Multi Source, Multi Protocol Number Portability Data Access**

Titan.ium's NP continues the multiple access All G theme in its approach to accessing number portability data sources. NP provides back-end data source support for a wide range of network protocols, including MAP-SRI, MAP-ATI, INAP-IDP, CAP-IDP, ENUM and SIP. Of course, a fully local cached data option provisioned via SOAP or flat file is also supported for the ultimate in speed and flexibility.

#### **Transparent Data Source Chaining**

Network queries can be transparently chained across multiple data sources to achieve the best possible number resolution. The set of data sources to be consulted can be configured on a prefix, network and policy basis.

#### **Complete Number Portability Solution**

The integration of Titan.ium's NP with a provider of number portability data allows Titan.ium to provide a complete solution to operators: not just number portability data but also the infrastructure to consume it and serve it across all the technology generations present in the network.

## Product Data Sheet Number Portability (NP)

### Key Capabilities (continued)

#### Deployed on Titan Platform

Titan.ium's NP solution is deployed on the field hardened Titan platform. Titan is Titan.ium's multi-protocol, multi-application telecom platform, and is in service with 8 of the world's top 10 service providers. Titan, and specifically NP on Titan, can be deployed in both virtual and physical formats.

#### Full OSS/BSS Support

NP's Titan Master node provides a single point of provisioning and system maintenance no matter how many instances/sites are involved in the overall network deployment. Further, NP delivers TDR based reporting and its integrated SNMP MIB support ensures that NP is always fully visible to and manageable from the NOC. Finally, NP provides an IPFIX real time accounting stream to network BSS functions.

#### High Scalability, Telco Grade Reliability

NP nodes have the processing and RAM capacity to handle both highly demanding network query loads and vast amounts of NP data. Multiple NP nodes can be deployed: NP's Titan-based architecture allows NP to scale horizontally to any number of instances/sites needed for optimum network fit.

Titan technology also endows NP with telco grade reliability via several network technology appropriate strategies, ensuring non-stop availability of number portability correction.

#### Contact Titan.ium Today

Please visit [www.titaniumplatform.com](http://www.titaniumplatform.com) for product or solution information. For configuration and pricing details, please contact your local account representative via [sales@titaniumplatform.com](mailto:sales@titaniumplatform.com)

#### About Titan.ium

Titan.ium Platform is a leader in signaling, routing, subscriber data management, and security software and services. Our solutions are deployed in more than 80 countries by over 180 companies, including eight of the world's top ten communications service providers and all of the top five. Titan.ium supports any network, domain, signaling protocol, and infrastructure with advanced routing capabilities and a unified end-user experience.

