# Geographic Number Porting – Quick Start Guide

## Overview

Geographic Number portability (GNP) provides the capability for the customer of one communications provider (the losing CP, or LCP ) to become a customer of another communications provider (the gaining CP, or GCP ) whilst retaining the same geographic telephone number. When GNP was implemented in the UK, industry adopted the "onward routing" solution, which requires the Range Holder (RH) to route calls to the GCP for them to deliver the call on to the end user. However, IP porting is getting more common, enabling CPs to route calls via an IP link and avoiding the TDM network.

Ofcom General Condition B3 sets out the rules which communications providers must follow when customers request to take their numbers with them when they change providers.

Please note this is a "quick start" guide only – full details of the industry agreed porting process can be found here:-

http://www.offta.org.uk/__data/assets/pdf_file/0016/212650/Number-Port-Provisioning-Core-Processes.pdf

## Service Establishment

Before number porting can take place, there must be a technical and commercial agreement in place between the gaining and losing CPs. A Point of Interconnect (POI) or a transit agreement with a network CP is also required to route the calls. The GCP will also require a Communications Provider Identity Code (CUPID) and a porting prefix or prefixes (format 5xxxxx), which are allocated and administrated by Ofcom.

Detail of the Establishment process and the associated documentation can be found here:-

http://www.offta.org.uk/__data/assets/pdf_file/0023/212648/Number-Port-Service-Establishment.pdf

## Contacts Register

As part of the establishment process, CPs exchange a Porting Contacts Register, which gives contact details for service establishment and maintenance, order handling, port failure and emergency restoration and fault repair. It is the responsibility of each CP to ensure that this document is accurate and up-to date and inform their porting partners of any changes.

The Contacts Register template can be found here:-

http://www.offta.org.uk/__data/assets/pdf_file/0025/214693/App-G1-GNP-Contacts-Register.pdf

## NPOR

Porting requests are exchanged using an industry agreed template, called an NPOR ( Number Port Order Template ). A copy of the template can be found here:-

http://www.offta.org.uk/__data/assets/excel_doc/0026/214694/App-G2-GNP-Number-Port-Order-Template.xls

It's important that this template is not amended in any way, as some CPs have automated the handling process.

## Order Presentation

There are currently two main options for requesting number ports: -

- E-mail – CPs who use this method should send their porting requests to the LCP e-mail accounts as detailed in their Contacts Register. The e-mail should have the NPOR attached.
  To enable CPs to sort e-mails on arrival, all CPs should as a minimum include their CP name and the words "single" or "multi" in the subject header of the e-mail. This will enable CPs with split order desks to set up appropriate rules.
  E-mail should be used for low volume requests (<100 export orders /week/CP) and all subsequent porting orders.
- Electronic File Transfer – this is seen as the preferred method that all CPs should migrate to, and must be used where single line orders exceed 100 per week.

Full details of process automation can be found here:-

http://www.offta.org.uk/__data/assets/pdf_file/0028/214696/App-G4-GNP-Process-Automation.pdf

## Lead times

The minimum order lead times in working days are: -

| Number Type | Installation type | Min. Order Lead-times (Order placement Day 0) | | | Order Handling SLAs | |
|---|---|---|---|---|---|---|
| | | Direct Ports (inc RRH) | Sub-Ports LCP Lead-time | Sub-Ports RH Lead-time | Order Acknowledge-ment SLA | Order Accept/ Reject SLA |
| Geo | S/L | 4 | 7 | 4 | n/a | next wd |
| Geo | M/L <30 lines/channels no DDI | 7 | 10 | 7 | next wd | 2nd wd |
| Geo | M/L (31-150 lines/channels) Inc. DDI | 10 | 13 | 10 | next wd | 2nd wd |
| Geo | M/L (>151 lines/channels) Capacity check req'd | 17 | 20 | 17 | next wd | 2nd wd |
| Geo | Complex DDI | 22 | 25 | 22 | next wd | 2nd wd |
| Non-Geo | Single/Multiple Nos | 7 | 10 | 7 | n/a | 2nd wd |
| Note 1 – The sub-port lead-time splits indicated in the table above represent the min lead times the LCP and RH can each expect to see when receiving a sub-port NPOR from the GCP. i.e., the RH allocation of 4WD is a sub-set of the overall min lead time for sub-ports of 7WD. | | | | | | |
| This will help to reduce invalid rejects from Range Holders (Code 22 - insufficient lead time) | | | | | | |

## Order types

There are five main order types: -

- Provide (PRO) – generated by the GCP to the LCP, where the LCP is also the RH.
- Cease (CSE) – generated by the current CP to the RH, to notify them that the end user has ceased service on a previously ported in number. A cease order effectively "re-patriates" the number to the RH.
- Return to Range Holder (RRH) – generated by the RH and sent to the current CP. This order is used when an end user has previously ported the number and now wishes for the service on the number to be back with the RH.
- Subsequent (SUP) – generated by the GCP where the number has previously been ported by the RH to another CP (i.e. the LCP and the RH are different). The GCP will initiate and co-ordinate the port between all parties. A subsequent porting order is sent by the GCP to the LCP who will validate the customer details. Once the order has been accepted by the LCP the GCP sends a sub port order to the RH, ensuring that the "LCP acceptance for Subsequent Portability" box is completed. As there are three CPs involved in this process, the order flow and port activation need to be carefully orchestrated by the GCP. It is the GCPs responsibility to establish who the RH and LCP are before the order can be placed. If the GCP is unable to confirm who the LCP is then they will submit a provide request to the RH. The RH will then reject the order using rejection code 30 and supply the CUPID of the LCP.
- Prefix Change (PXC) – generated when the current CP wishes to change the ported prefix due to a change of the serving switch or exchange. Prefix changes are not service maintenance and are requested on a per order basis.

There are four amend order types:-

- Re-Present (RPT) – generated by the GCP in response to a rejection from the LCP. When a main order is rejected, the GCP will check the data that has been rejected, correct the relevant fields and resend the order as a RPT. An order must be re-presented within 24hrs of the rejection of the main order.
- Change (CHA) – generated by the GCP to modify an accepted order, where the port has not yet been activated. A CHA order may change the porting date/time and/or the exchange prefix. If the porting date is changed, it must still adhere to the industry agreed lead times. A CHA can be submitted up until 18:00 on the working day prior to the accepted port date.
- Cancel Own (COW) – generated by the GCP to cancel any main order that has been accepted but not yet activated.
- Cancel Other (COT) – generated by the LCP to cancel any main order that has been accepted but not yet activated. This is usually where the end user has advised that they no longer wish to port. A COT can be submitted up to 16:00 on the working day prior to the accepted port date. After this time, the end user must contact the GCP directly to cancel the port.

## OTS Porting

In support of the One Touch Swich (OTS) process, a new form of porting known as "OTS Porting" has been defined.[1]

- A Successful OTS match which includes a request for port of a number is deemed to pre-authorise the port of that number.

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[1] The proposal for OTS Porting originated from the CPs with the largest volumes of consumer single number ports. In a letter to industry in September 2023 Letter to OTA for OTS, Ofcom encouraged adoption of OTS Porting by all CPs.

- For OTS, the losing retail CP is expected to return the CUPID of the current voice CP as part of a successful OTS match response, **if** they and their supply chain support OTS Porting. The gaining supply chain will know the RH and GCP, and along with knowledge of the current retailer and the current CUPID can work out if:
  - <u>all parties</u> support express porting (if not, standard porting processes must be used)
  - the port will be a provide, RRH or subsequent port.
- Switch Port Query (SPQ) – this is a query mechanism from the GCP to the LCP to validate that the number can be ported. SPQ is optional, but is **<u>very</u>** strongly recommended to be sent on the day the supply chain receives the overall switch order. All CPs using OTS Porting **must** support SPQ as LCP.
- Switch Port Execute (SPX) – generated by the GCP when they are ready to initiate the port. SPX can be used in scenarios equivalent to provide, RRH and subsequent port. For the sub-port, the GCP will send the SPX to the RH first (to update the routing), and then to the LCP (to fully cease voice service).
- SPX orders have no lead time, and are a request for an immediate port, based on the successful OTS match and SPQ response. Thus none of the four amend types are applicable to SPX.

The minimum order lead times in days and working hours for both SPQ and SPX message are:

| Number Type | Installation type | Min. Order Lead-times (Order placement Day 0) | | | Order Handling SLAs | |
| --- | --- | --- | --- | --- | --- | --- |
| | | Direct Ports (inc RRH) | Sub-Ports LCP Lead-time | Sub-Ports RH Lead-time | Order Acknowledgement SLA | Order Accept/ Reject SLA |
| Geo | S/L | 0 | 0 | 0 | n/a | 2 hrs |

## Line types

There are two lines types for geographic porting: -

- Single line – usually terminated on a socket that has a single number attached.
- Multi line – usually consisting of associated ranges or individual numbers, but can also be a single number.

Increasingly, with the move to "All IP" networks, references to single line and muti-line are being replaced by references to single number and multi-number.

## Capacity Planning

It is the responsibility of both CPs to ensure that the necessary capacity is available. The RH will be required to conduct a capacity planning study for a porting request where calls are delivered to 31 lines or more.

Details of this process can be found here:-

http://www.offta.org.uk/__data/assets/pdf_file/0020/145730/GNPE2E-Ops-process.pdf

## Order validation

This is the process that the LCP undertakes in order to "accept" or "reject" an order that they have received. The LCP can only "accept/reject" based on the information that is included in the porting order (e.g. the LCP cannot reject a porting order if, for example, the customer is currently in debt). The LCP has up to same time[2] on the next working day (single line) and same time on 2$^{nd}$ working day (multi-line) to undertake the appropriate validation and return either an "acceptance" or "rejection" (with the corresponding rejection code).

The telephone number provided on the NPOR is assumed to be correct and all validation checks are made against that number. If the number is being used on a product/service that does not have an installation address, then the end-user's billing address postcode should be used for validation purposes.

Note that OTS Porting orders are considered to be pre-authorised by the OTS/GPLB match, and **no** postcode validation will be applied to an OTS Porting order.

In the case of subsequent portability the LCP should only validate details relating to the current installation. The LCP should not validate the Number Portability Prefix Code as this will be properly validated by the Range Holder when they receive their element of the same sub-port order.

## Order Rejection

Orders can only be rejected based on incorrect or missing information being presented by the GCP. If a number has been disconnected (i.e. not currently a live service associated with it), this also may result in the rejection of the porting request (please refer to section "EECC" which covers "Right to Port"). As per the "order validation" rules above, a rejection should be generated to the GCP within one full working day (single line) or two full working days (multi line) of the order being received by the LCP. An order must be validated in full, with all rejection reasons and associated codes relating to the order.

If a CP believes that an order has been rejected incorrectly, then this should be discussed on a bi-lateral basis between the relevant CPs.

## Rejection Codes

The most common rejection codes are: -

- C25 – single line order but porting telephone number is multi line
- C26 – multi line order but porting telephone number is a single line
- C30 – telephone number already ported (must be accompanied by valid CUPID of LCP)
- C31 – customer has no service with LCP (please refer to section "EECC" for "Right to Port")
- C41 – invalid installation postcode

A full list of rejection codes can be found here:-

http://www.offta.org.uk/__data/assets/pdf_file/0027/214695/App-G3-GNP-Single-Line-Reject-Codes.pdf
http://www.offta.org.uk/__data/assets/pdf_file/0030/214698/App-G6-GNP-Multiline-Reject-Codes.pdf

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[2] If an order is received outside of working hours, "same time" should be interpreted at the end of the working day. E.g. a request received overnight should be acknowledged by the end of the first working day following receipt. Whereas an order received at 3pm on a Tuesday should be acknowledged by 3pm on Wednesday. I.e. the LCP always has a full working day to complete their validation and respond for a single line/number and two full working days for multi-line/number.

## Porting Activation

Order activation is the final stage of the porting order process. When activation has been completed, all inbound traffic for the number(s) in question will be routed to the GCP. Note: the GCP is responsible for ensuring that their network has sufficient capacity to handle traffic to ported numbers.

There are two different methods for activating the port: real time or fixed time. The GCP indicates what option they wish to use on the NPOR:-

- Real time activation – orders that have been identified as "real time activations" support a process known as "auto-postponement", which allows the GCP a period of up to 7 working days (from the accepted port date) to request the activation of the port. If no activation or date change request is made by the GCP within the 7 working days, the order is deemed to have lapsed, referred to as "time expired". The LCP will notify the GCP of this situation via a Cancel Other order sent on the 8th working day.
- Fixed Line activation – orders that have requested "fixed time activations" do not have an "auto-postpone window", these orders are "activated" by the LCP on the date and time requested by the GCP on the NPOR. The GCP can request either a date/time change or cancel the order up to 30mins before the port order is due to be activated.

Note the OTS Porting is a combined port order and activation request, with the activation taking place as quickly as possible after receipt of the order.

## Splitting Ranges of Numbers

There will be occasions when the RH will be requested to re-configure ranges of numbers to enable the porting of certain numbers, but allow others to remain working on the current installation. In these situations, the RH will re-configure the number range to enable the requested numbers to be ported where it is technically possible.

CPs should be aware that in some circumstances, the RH may not be able to reconfigure the DDI range in accordance with the end user's wishes. In these circumstances, all parties must work together to find an alternative solution.

## EECC

The EECC "Right to Port" requirement, which relates to "fixed line" voice services with both geographic and non-geographic numbering, covering both TDM and VoIP (Voice over IP) derived services, came into effect on 03/04/2023.

An end user now has the right to request their phone number that was previously associated with a service that has been ceased within the previous 31 calendar days, to be retrieved and re-assigned to a new service.

To facilitate this, there is an obligation on the previous retailer (and the appropriate supply chain) to process a valid port order against the number that was associated with a service that has been ceased.