



**Information & Communications Technology Authority**

**Public Consultation**

**on**

**Local Number Portability (LNP)**

**(Ref: CD (2004) 3)**

**Launch Date: 30 Aug 04**

**Closing Date: 30 Sep 04**

## Local Number Portability

Through this consultative document, the ICT Authority seeks comments from Licensees, other stakeholders and the general public on local number portability (LNP) which, many parties contend, helps to promote competition and maximize the benefits of a competitive telecommunications market for consumers. For example, if a customer can keep his telephone number when changing operators, he avoids a number of costs associated with a number change. With lower costs to the customer of changing operators, there is more potential for the development of competition and market entry.

### Background

The Information and Communications Technology Authority Law (2004 Revision) provides that:

9. (3) ... the principal functions of the Authority are-
  - (a) to promote competition in the provision of ICT services and ICT networks where it is reasonable or necessary to do so;

and

71. (3) Subject to this Law, the Authority may make rules imposing on any licensee, the responsibility to offer number portability if the Authority is satisfied on reasonable grounds that-
  - (a) the benefits likely to arise from the requirement to provide a particular form of number portability outweigh the likely cost of implementing it; and
  - (b) the requirement will not impose an unfair burden on any licensee.

- (4) In this section-

“number portability” relates to the ability of customers to change licensee without having to change their telephone numbers.

### Issues

LNP promotes competition amongst Licensees because a customer can continue using an existing telephone number after changing Licensees. Without LNP, the nuisance of notifying family, friends and colleagues, and missed telephone calls impedes customers from changing service providers. Business customers face additional costs of advising customers and reprinting stationary, advertising materials, signs and anything else that identifies a telephone number and the costs of potential lost business. It is recognized that these factors serve as a significant disincentive for customers to change service providers and thereby hinders the development of competition.

It is also recognized that the implementation and maintenance of an LNP system may be costly and impose additional costs on Licensees and their customers.

1. Although it is likely that the issue of costs and benefits will need to be assessed in more detail once a particular form of LNP is determined, the Authority would appreciate parties' discussion of some of the more significant costs and benefits of implementing LNP in the Cayman Islands, separately for fixed line networks and mobile networks and whether such benefits would outweigh the costs of implementing LNP in each case.

In the Cayman Islands, fixed line, fixed wireless and mobile Licensees are allocated number ranges by the Authority. The Licensees then allocate numbers to individual customers and the information in the number is typically used for two purposes: customer identification and call routing. The customer identification allows for billing and administration to be carried out by the Licensee. The call

routing permits the call to be directed to a Licensee's switch (host switch) which then routes the call to a customers telephone.

If the number has been ported then it can no longer indicate the host switch. The number continues to identify the customer being called but cannot identify the network and exchange where the customer is located.

In order to effect LNP, additional information is required to ensure that the call is routed correctly. This additional information should identify that the customer's number is no longer the same as the network routing number and therefore, some form of "number translation" needs to take place to identify the network to which the call should be directed. In this way a call to a ported number gets completed to the customer.

In the United States and Canada a database system is used for LNP. NeuStar Inc., is under contract to industry consortia to develop and maintain the Number Portability Administration Center (NPAC) to support the implementation of LNP in seven regions in the United States and in Canada. The NPAC Service Management System (SMS) is the database system that manages the porting of telephone numbers from one local service provider to another. It contains information about ported numbers, the service provider and switches that serve ported numbers. Service providers input ported numbers into the database (upload) and receive information from the database (download) for the routing of calls.

A second option is the use of a database, scaled for the Cayman Islands' market that may lack some functionality or support available with the NPAC SMS.

Thirdly, remote call forwarding and direct inward dialing (DID) are alternatives for an LNP-like function. These alternatives are not in wide use and are generally considered inferior to the database approach.

2. Is the existing North American NPAC SMS LNP system feasible for use in the Cayman Islands?
3. What LNP systems, other than those identified above, should be considered?
4. If the North American NPAC SMS LNP system is not feasible for use in the Cayman Islands, what LNP system should be implemented?

The implementation and maintenance of an LNP system will cause Licensees to incur internal costs for any additional equipment, business and operational support, possible switch software upgrades, and training. In addition to these internal costs, there will be costs that are common to all of the users of the LNP system, such as NPAC SMS related costs, if an LNP database system is adopted.

The Authority tentatively concludes that each Licensee should be responsible for its own internal LNP costs and common costs should be recovered from all Licensees which use the LNP system. The recovery of LNP common costs from the Licensees should be transparent, fair and take into account the respective positions of Cable & Wireless (CI) and new Licensees and must satisfy the legislative requirement that LNP not impose an unfair burden on any Licensee.

5. Should each Licensee be responsible for its internal LNP costs?
6. What LNP costs should be treated as common?
7. How should the common costs of a) an LNP database solution and b) the LNP system identified in response to question 4, be recovered from Licensees?

The schedule for LNP rollout is related to questions about the appropriate LNP system and the recovery of LNP costs. The simultaneous introduction of LNP throughout the Cayman Islands would promote the rollout of competitively supplied services in Cayman Brac and Little Cayman. However, the availability of LNP and the speed of rollout depends on the LNP system that is chosen.

8. Should LNP be available throughout the Cayman Islands and, if not, what locations should mandated LNP be required first?
9. What should be the pace for LNP rollout and should rollout be conditional on a trigger (e.g., request for interconnection or LNP)?

The Authority considers that there is an important role for the Licensees in the selection, implementation and maintenance of an LNP system. Collectively, the Licensees can evaluate the alternative methods available for the supply of LNP, determine the speed of introduction and scheduled roll-out of LNP and the selection of supplier of the LNP system. The ICT Authority would continue to exercise jurisdiction over all LNP issues but it would be the Authority's intention to approve any industry consensus on LNP matters, so long as any such consensus does not contradict the Authority's directives on related matters or the public interest is not jeopardized. Where consensus cannot be achieved on an issue, the Authority would resolve the dispute after receiving comments from interested parties.

10. What role should Licensees play in the selection, implementation and maintenance of an LNP system? Should an industry consortium or association be created to select the appropriate LNP system, the provider of the LNP service, rates for the use of the LNP service and negotiate with the LNP system vendor(s)?

The Authority believes that LNP will promote competition among Licensees and improve customers' choice of suppliers and services. It is also recognized that there may be a significant cost for LNP and Licensees may decide that the benefits of LNP do not outweigh the internal LNP costs. The Authority could make LNP optional for Licensees, other than Cable & Wireless (CI). Licensees that do not participate in LNP would not be responsible for the recovery of LNP costs or required to port customers' telephone numbers to another Licensee but the

Licensee would not be permitted to port numbers from other Licensees. While this would provide Licensees the ability to opt out or delay use of LNP, it could also reduce the benefits of LNP to other Licensees and may have the effect of increasing Licensees' portion of shared LNP costs.

11. Should LNP be optional for Licensees, other than Cable & Wireless (CI)?

LNP was introduced in the United States and Canada for wireline carriers approximately six years ago. However, LNP for mobile operators has only just been introduced in the United States. LNP among mobile operators is thought to produce many of the same benefits as for wireline service providers. In addition, LNP between wireline and mobile Licensees would provide the means for customers to replace wireline service with mobile service while retaining their wireline telephone numbers. Mobile LNP would serve to promote competition between wireline and mobile Licensees.

The Authority recognizes that LNP for mobile Licensees is likely more difficult and costly than LNP for wireline Licensees. However, the technical difficulties appear to be resolved in the United States and the introduction of mobile number portability may provide an option that is technically and economically acceptable for the Cayman Islands.

12. Is the U.S. form of mobile number portability technically and economically acceptable for adoption by mobile Licensees and, if not, are there other forms of mobile number portability that should be considered? Alternatively, should mobile number portability be implemented at all, or at a later date in the Cayman Islands? If the latter, when would it be appropriate to introduce mobile number portability?

As noted above, the Authority believes that it could be useful for Licensees and other stakeholders to examine aspects of LNP and offer recommendations to the Authority based on industry consensus. The Authority invites parties to identify LNP issues that are not raised in this consultation document, particularly issues which should be addressed by the Authority before any if industry meetings occur.

13. What issues, if any, should the Authority address in advance of industry meetings to discuss the implementation of LNP?

Experience in other jurisdictions indicates that there can be a number of issues associated with the introduction of LNP such as Licensees delaying the porting of numbers, improper solicitations whereby customers are moved from one service provider to another without their direct consent, consumer misinformation and the like.

14. What matters, if any, should the Authority address in advance of the introduction of LNP to protect Licensees and consumers from unreasonable practices?

The Authority requests written submissions from established and potential Licensees, other stakeholders and the general public by 30 September 2004.

Written submissions should be forwarded to:

By post:

The Managing Director

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P.O. Box 2502GT  
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Cayman Islands

Or by courier:

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North Sound Way  
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Or by email to:

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Or by fax to:

1-345-945-8284