Response to ECTEL Consultation
On
**Policy Recommendations for the Adoption of
Number Portability in ECTEL States**

Prepared by
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INTRODUCTON

Columbus Communications (Grenada) Limited (CCGL) welcomes the opportunity to participate in the process aimed at implementing number portability (NP). In general we concur with the position expressed by ECTEL in the document, that NP is essential to ensuring effective and sustained competition in the markets for fixed and mobile voice services. International experience supports this. The Federal Communications Commission (FCC) recognized that the successful implementation of NP would go a long way in the development of competition; as such it was a key goal of the Telecommunications Act of 1996. It was mandated in Europe since 2003. Today NP is a reality in competitive telecommunications markets globally including Latin America. The Caribbean Region is lagging behind in this regard. Again, as noted in the consultation document, in several countries across the Region, steps are being taken to move in this direction.

Recommendation 1:

ECTEL proposes to focus on adopting a framework for service provider number portability in ECTEL states and to address other types of NP as and when the need arises.

CCGL agrees with this recommendation. We believe that service provider number portability will address the main objective of NP, which is to provide the framework for robust and sustained competition in the market for voice telephony. Further, as stated in the consultation document, the existing regulatory framework deals specifically with service provider number portability.

We note also that Geographic NP is already available in Grenada from both LIME and CCGL. Service NP (i.e. fixed to mobile and mobile to fixed) would require significant changes to the existing interconnection and retail pricing regimes. Under the calling party pays rating structure for mobile calls, the retail rates charged for fixed to mobile and off net mobile calls are significantly higher than for fixed to fixed and on net mobile calls. This is largely driven by the underlying interconnection costs. If fixed to mobile portability is allowed, customers making a call to a previously fixed number now ported to a mobile network would have a difficulty estimating their telephone charges. This would also apply in the case of off net mobile calls. Service NP may be revisited as necessary, as the market develops further. International experience suggests that fixed to mobile number portability is more consistent with a receiving party pays environment in the mobile space.

Recommendation 2:

ECTEL invites comments on its recommendation to implement NP for fixed-to-fixed and post-paid mobile-to-mobile services.

Given the peculiar challenges related to number portability for prepaid mobile service such as prepaid contracts, handset subsidy and billing related challenges, CCGL believes starting with fixed to fixed and post paid mobile to mobile would be an acceptable option.

ECTEL's own analysis confirms that competition has developed less in the fixed market as compared to the mobile market. In Grenada CCGL under the brand name Flow entered the fixed voice market in late 2009. CCGL's market share is less than 3%, despite our rates being more affordable than that of the incumbent telephone operator. The market research done by ECTEL indicates that 78% small business respondents indicated the importance of keeping their telephone numbers. Our experience indicates that residential customers have similar concerns. So we believe the availability to NP is very critical to the development on competition in the fixed market. However there is every reason to believe that prepaid mobile customers will have as much interest in retaining their numbers as will post paid customers, and the porting of prepaid numbers have happened in other markets. ECTEL should also keep in mind as well that inclusion of prepaid mobile customers may reduce the cost per porting transaction, as the fixed costs of the NP system can be recovered across more porting transactions.

Recommendation 3:

ECTEL invites comments on its recommendation to defer the implementation of pre-paid NP pending further investigation and study.

As indicated above, there are special challenges associated with the implementation of NP for prepaid mobile services in particular. These include,
   i.   the pervasive use of handset subsidy in the prepaid business model in the Caribbean markets;
   ii.   high mobile termination rates when compared to fixed termination rates;
   iii. use of high mobile termination rates to cross subsidize hand set subsidy
   iv.   and billing issues.

These will clearly bring some added complexity to the decision making process, and we do not believe that this should be used to delay the decision on implementing NP in the fixed market. However, this has to be balanced against the need for a critical mass to make the implementation of NP sustainable. In the final analysis, the decision should be driven by the goal of ensuring sustained competition, and the long the long term sustainability of the market. CCGL believes that this should be evaluated as part of developing the implementation plan for NP. In this process consideration should be given to various options including a harmonized plan for the ECTEL states and also the wider Caribbean Region.

Recommendation 4:

ECTEL invites comments on centralized databases versus peer-to-peer options for NP.

As outlined in the section below decisions regarding centralized as against peer to peer databases will depend on the technical solution or traffic routing arrangements selected. This decision will require specific market based information that is not available to us at this point. Based on our position in Recommendation 9, we see the decision on databases as an outcome of the work of a working group established to specify the NP arrangements.

Centralized databases would appear to have advantages where a regional platform is being pursued, comprising ECTEL, OECS and possibly other CARICOM nations such as Barbados, Jamaica and Trinidad, with a number of operators across the region all gaining access to the centralized database. However, in the case of Grenada, where there are only three operators in service, and only two possible porting peering relationships (one between Digicel and LIME Mobile, the other being LIME Landline and Flow), peer to peer databases may be feasible, particularly to implement number portability in the shortest possible timeframe. However this will not be very scalable in terms of accommodating new entrants. Consideration though will have to be given as to how calls from a third party operator to the peering relationship to a ported number will be handled. For example, for a call from a Digicel customer to an originally-assigned LIME number that has been ported to Flow, will Digicel resolve the destination network and send the call directly to Flow (which means that Digicel must also receive a copy of or have access to the porting database between LIME and Flow), or will Digicel send the call to LIME, who will then resolve that the call is to be sent to Flow, and therefore charge a transit cost for such scenarios? These are the issues which the working group would seek to work through and resolve as part of the process of selecting a technical solution.

Recommendation 5:

ECTEL invites comments on the most appropriate technical solution and related costs for implementing NP in ECTEL states.

The technical aspect of NP has mainly to do with call routing options. The various methods of call routing are all well developed across the industry. The table below outlines the various routing options with related administration and database plus switch location scenarios.

Technical Solutions	Routing (Description)	Routing Type	Administration / Database	Database Location
Call Forwarding	Similar to call forwarding value added feature.	Indirect[1]	Bilateral[2]	On switch[3]
Onward Routing	Network originally associated with the called number checks internal database identifies the number ported to recipient network, and routes the call to recipient network to which number has been ported.	Indirect	Bilateral	On Switch
Call Drop Back	Network originally associated with the called number checks if the number is ported, if it is, releases the call to the originating network identifying the recipient network of the ported number, the originating network routes the call to the recipient network	Indirect	Centralized[4]	On Switch
Query on Release	Network originally associated with the called number identifies the number is ported, returns a message to the originating network indicating the number has moved. The originating network then queries a database to obtain information identifying the correct terminating network.	Indirect	Centralized	Off Switch[5]
All Call Query	Call routed directly from the originating network to the recipient network, after querying the centralized database to determine what is the appropriate network for a given number	Direct[6]	Centralized	Off Switch

Source: Various inc. Implementation of Mobile Number Portability in CEPT Countries ;(Updated October 2005); Electronic Communications Committee (ECC) within the European Conference of Postal and Telecommunications Administrations (CEPT) Number Portability for the Bahamas Consultation Document; April 2011; Utilities Regulation and Competition Authority

[1] Indirect - Call to ported number first goes to the donor network and re-routed to the recipient network.

[2] Bilateral - Administration for ported numbers is by individual service providers, each maintaining database of ported numbers and routing information.

[3] On switch - Each switch is linked to separate decentralized database.

[4] Centralized - A single party (usually third party) maintains the central database and service providers responsible for routing of calls.

[5] Off switch - -Database for routing is separated from switches.

[6] Direct - Call is routed to the recipient network after first determining the location of the number.

In selecting an approach considerations include,
- Expectation re take up and number of calls to be ported
- The impact on network resources e.g. call signaling and routing for call flows
- Establishment costs for NP
- Ongoing operation and administration costs
- Economic arrangements to recover costs

The All Call Query (ACQ) approach for implementing service provider number portability is the most widely used approach. This is because it offers the best opportunity for a cost effective long term solution to support sustainable market development. The logical fit with the ACQ implementation approach is a centralized database approach. International best practice indicates that number portability transaction processing including database operations is best done through a neutral third party / centralized clearinghouse approach.

However, while this may be the preferred approach, in the case of Grenada and the ECTEL islands, consideration should be given to the other options. Consideration should also be given to going with a phased approach, such as starting with one of the indirect routing options and later transitioning to the ACQ direct routing option. This could be a consideration if for instance the implementation of NP in the prepaid mobile market is phased. As part of this analysis we would also suggest that in determining a solution consideration be given to exploring one for all ECTEL member states and even a wider Caribbean wide solution, if a central database will be adopted. Of course, if peering databases are adopted, they would be established for each pair of operators within the market.

Recommendation 6:

ECTEL invites comments on participating in regional NP solutions for providers in ECTEL states.

As indicated above CCGL believes that all potential options should be evaluated in order to come up with the most cost effective solution that delivers long term and sustained development in the market(s). From an initial view, CCGL believes that a regional NP solution may be the most affordable and scalable platform in the long term, but is open to evaluate using initial local peering solutions in the first instance to enable NP in the shortest possible timeframe.

Recommendation 7:

ECTEL invites comments on the issue of technology neutral options for implementing NP in ECTEL states.

CCGL would ask that ECTEL clarifies what in meant by "technology neutral options…" in the context of NP.

Recommendation 8:

ECTEL invites comments on the need to provide NP solutions capable of facilitating the transmission of SMS and other non-call related signaling.

CCGL has no specific comments, but reserves the right to comment in future consultations.

Recommendation 9:

ECTEL invites comments on the proposal to undertake a further consultation focused solely on the technical solutions proposed by providers responding to the current consultation.

The technical solutions for NP, that is porting technology and services, are already well defined. As such CCGL does not see the need for a separate consultation on technical solutions alone. Further, in recent months several countries within the region have done either studies or consultations on NP. Countries include Dominica Republic, Jamaica, Trinidad and Tobago, Cayman Islands and The Bahamas. ECTEL can therefore benefit from these works.

CCGL is of the considered view that the decision making process would be better served by pooling the resources of stakeholders who possess detailed knowledge of the existing technologies and the status of operations in the relevant markets, and leveraging that knowledge to come up with a cost effective solution that meets the needs of the markets in question. We therefore propose that ECTEL establish working groups comprising representatives from the various operators within its jurisdictions to come up with a solution for the market(s). The local / regional resources could be supplemented with someone with expert knowledge on NP. Given the level of work now going on in the region there are opportunities to leverage that expertise.

Recommendation 10:

ECTEL invites comments on the time period proposed to implement a request to port a number.

The decision on timeframe to port numbers should be guided by the objective to promote sustained competition. We should therefore aim to for as short a timeframe as is practical. Even if twenty four hours is not achievable initially, it should certainly be the ultimate goal.

However, from an initial guideline perspective, CCGL believe a forty-eight hour porting timeframe in the first instance would be acceptable, with the intention to reduce to less than twenty –four hours in the long run. There are jurisdictions where porting is being done within four hours.

Recommendation 11:

ECTEL invites comments on whether the implementation costs of NP should be placed on providers.

See comments to Recommendation 12.

Recommendation 12:

ECTEL invites comments on whether providers should be required to contribute to the establishment and maintenance costs of a NP system or whether all providers should be required to bear their own costs.

The establishment, maintenance and administration on NP involve a range of costs. These include

1) Establishment cost (e.g. costs to equip networks and switches, acquisition and implementation of database system)
2) Operating costs (e.g. running of database)
3) Administrative cost (e.g. handling of porting requests)
4) Facility usage (e.g. costs of database dips for searches, costs of additional conveyance of calls to ported numbers in the case that they must transit the network originally associated with a ported number)

In terms of the establishment costs, some will be network specific (e.g. cost related to any network enhancements required to facilitate NP) and some will be common (e.g. costs related to centralized database). CCGL believes that specific costs should be covered by the respective networks while common costs should be shared by the all providers in the respective markets. The basis of allocating the shared cost should be percentage of revenues. This is to say if NP will apply to fixed voice calls plus postpaid mobile for example; the cost should be split based on the percentage of a service provider's relevant revenue to the market total of this total relevant revenue. In this way the entire market contributes to the cost of implementing NP. CCGL believes this is a fair basis of distributing the costs, as the entire market will benefit from NP.

Additionally, providers should have the option to recover those costs from subscribers, whether through broad based charges to all customers or charges only to those who benefit from porting. The objective is to ensure porting remains sustainable.

Recommendation 13:

ECTEL invites comments on how costs should be distributed between donor and recipient networks.

CCGL assumes that the cost being referred to here is the administrative costs incurred in the process of porting a number. This process implies costs for both the donor and

recipient network. From a practical standpoint, if the donor network were to cover these costs, in all likelihood they would pass on this cost through user charges to the end customer. This would act as a disincentive for customers who wish to port their numbers.

If the cost is attributed to the recipient network, to encourage porting, the recipient network operator would want to minimize the cost to the end customer to encourage porting. The recipient operator may even want to absorb the cost as a way of stimulating the demand for NP. International experience suggests that the predominant model is for the administrative costs associated with porting to be attributed to the recipient network. In many instances this charge is waived to the final customer to encourage the user to switch to the recipient's network.

CCGL would therefore recommend that the administrative costs be borne by the recipient network and that the recipient network should have the flexibility to pass on this cost to the final customer. However, the recipient network should be able to audit any costs charged by the donor network, to ensure they are efficient and necessary, and in line or within with international benchmarks for such costs/charges.

Recommendation 14:

ECTEL invites comments on whether providers should be permitted to charge subscribers any kind of fee for porting their number.

The framework should allow service providers the flexibility to recover all costs relevant to providing the service. Establishment and operating costs should be covered through broad based charges. As indicated above service providers should have the flexibility to recover administrative cost related to porting through a per request fee. Providers could decide not to pass on this charge to customers as a way of stimulating demand.

Recommendation 15:

ECTEL invites comments on the process proposed for implementing NP and the associated conditions on providers.

Experience shows that the administrative arrangements and related call handling and back office changes within the carriers are the more complex and problematic aspects of implementing NP. The approaches in developing the framework should be geared towards promoting easy and efficient porting, that promotes competition.

In this regard we agree that porting requests should be made to the recipient provider and the process of porting facilitated by the recipient network provider. We also support the view that customers should be made aware of their rights to port their numbers and the terms and conditions relating to the service should be very clearly defined and customers made aware of such terms and conditions. This can be achieved through customer awareness programmes that would be a key part of the implementation plan.

The Terms and Conditions for porting numbers should speak to all customer rights and obligations relating to the provisioning of the service. This should include guidelines for porting a number including,

    i.   the process to follow to request that a number is ported
    ii.   specific circumstances in which a request for porting can be refused;
    iii.   the process for validation of legitimate subscriber
    iv.   timeframe before a ported number can be returned to donor network (to discourage abuse of the service

The recommendation to allow a minimum period within which a customer can withdraw a request for porting a number is inconsistent with goal to effect a port within twenty four hours. CCGL agrees with the circumstances under which a request for porting a number would be denied.

We also support the idea of the NTRC monitoring the implementation, and maintenance of NP. We concur with the obligations on the operators that are noted, except that with respect to "win back" a timeframe should be set during which operators should not engage in win back tactics. In this regard we recommend that the timeframe for donor network to contact customer lost be a minimum of one year. CCGL proposes that the working group be tasked with finalizing the administrative and related procedures for porting a number.

Recommendation 16:

ECTEL invites comments on the proposed deadline for implementing NP in ECTEL states.

Based on the experience of other market that implemented NP in recent years including Dominican Republic and other Latin American markets CCGL would suggest that two years from the start of the process (that is the issuing of this consultation document) is a reasonable timeline. The target implementation timeframe should be June 30th 2013.

We further propose the working groups be provided with this timeframe within which to specify the requirements of NP, draft a detailed implementation plan and effect the implementation. This should be done with the involvement of the NTRC.

Recommendation 17:

ECTEL invites comments on the process of validation or authentication to be utilized to facilitate a port request by a recipient network.

CCGL agrees that service providers should be required to include as part of the process to port a number, a method to authenticate the validity of a request. This should be included as part of the Terms and Conditions of Service.

Recommendation 18:

ECTEL invites comments on the requirements for informing customers of the circumstances in which ported numbers may attract new or different charges.

Methods used in other jurisdictions to alert users that a number has been ported and that calls to that number may attract different rates include an announcement or a special alert tone. Consideration could be given to using these options. CCGL recommends that the various options, including allowing no specific notification be explored by the working committee and that the final proposal is made at that level.

Recommendation 19:

ECTEL invites comments on any other issues that may be considered relevant to the consultation.

The consultation does not specifically address the issue of cost recovery. CCGL believes this is a key consideration in the plan to implement NP. As with any other service provided, service providers must be allowed to recover the cost of establishing and maintaining facilities for NP. We believe that a key principle is that NP will benefit the entire market, and as such service providers should be allowed to recover their costs through broad based charges. There are a variety of ways in which this can be achieved. In the Dominican Republic for instance, a small regulatory fee was levied on each working line (fixed and mobile). The justification was that the entire market would benefit from the availability of number portability and as such should contribute to the provisioning. The key consideration in determining the method of cost recovery is that the approach should be competitively neutral.

The issue of high interconnection rates should also be tabled. This is largely the reason for significant retail rate differentials between on net and off net calls. With service provider number portability, as customers may not necessarily know which network is being contacted, it is unfair to expect customers to have to pay significantly higher rates for calling a number that has been ported. This is particularly so where retail rates for off net calls (supported by high interconnection charges) are kept high to discourage off net calls. Therefore, CCGL believes that as part of this consultation to introduce Number Portability, ECTEL should also seek to address the issues of high interconnection rates and high retail cross network rates. The playing field should be leveled for new entrants and non dominant providers, who should be able to effectively compete in the retail space.