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YOUR CONNECTION TO THE WORLD

September 3, 2012

Mrs. Kathleen Riviere-Smith
Chief Executive Officer
Utilities Regulation and Competition Authority
UBS Annex Building
East Bay Street
Nassau, The Bahamas

Dear Mrs. Riviere - Smith,

Re: Submission of the Bahamas Telecommunications Company Limited (BTC) Response to URCA's Public Consultation Document: Setting Regulated Interconnection Charges of The Bahamas Telecommunications Company Limited (BTC) Going Forward

BTC herein submits its response to the Public Consultation Document on the Utilities Regulation and Competition Authority (URCA) Setting Regulated Interconnection Charges of The Bahamas Telecommunications Company Limited (BTC) Going Forward (ECS 21/2012).

BTC looks forward to further engagement with URCA with respect to the captioned subject matter.

Sincerely yours,

Felicity L. Johnson
Senior Vice President of Legal, Regulatory & Carrier Services
& Company Secretary

Attachments: (2)

The Bahamas Telecommunications Company Limited:

Response To

PUBLIC CONSULTATION

Setting Regulated Interconnection Charges Of
The Bahamas Telecommunications Company Limited
(BTC) Going Forward

Consultation Document
ECS 21/2012

Legal, Regulatory and
Carrier Services Division
September 3, 2012

Executive Summary

BTC welcomes the opportunity to comment on URCA's proposals for the setting of BTC's future interconnection charges. A summary of BTC's views is as follows:

1. URCA urgently needs to address the setting of interconnection charges of the other operators. SRG/CBL has market power over its termination charges, and unless URCA brings these on to a regulated basis and reviews these regularly, BTC considers that it cannot negotiate interconnection charges on a fair and equitable basis, with resulting damage to its ability to generate profits for investment in its network. URCA is committed to carrying out a review of the call termination market in the second half of 2012, and BTC hopes that URCA will start this work as soon as possible.

2. URCA's proposals to use the separated accounts as the basis for future interconnection rates is premature. As URCA recognises, these accounts which are in year 3 of development are not stable, and so do not yet provide a satisfactory starting point for future interconnection rates. The 2009 separated accounts, which URCA proposes as the starting point for the glide path, are deficient in several ways. They are based on accounting information from three years ago, the volume data in them was based on management estimates rather than on actual traffic, and they have not been subject to an external audit. Hence they cannot be used as the starting point for cost based forward-looking glide-paths ending in 2014/2015 without a significant risk of regulatory error.

3. While BTC is sympathetic to the use of multi-year glide paths for the setting of interconnection rates, it is too soon to introduce these in The Bahamas. BTC considers that a glide path should be introduced only

when the separated accounts system is producing reasonable estimates of cost based interconnection rates.

4. URCA has apparently misunderstood the role of the mobile termination rate in The Bahamas. Because The Bahamas still uses the receiving party pays system, the mobile termination rate only applies to calls originated outside The Bahamas, hence the reduction in these rates proposed by URCA will only benefit operators in other countries by increasing their profits. This would reduce the revenues BTC earns from international inbound calls, and will disadvantage BTC's fixed and mobile customers in The Bahamas because it will have less money to invest in its networks and services. The country's balance of payments will also suffer because lower revenues will flow into The Bahamas from operators in other countries. BTC considers that URCA's proposals for future mobile termination rates will be contrary to URCA's legal duties to "act in the interests of persons in The Bahamas" and to the Government's objectives for the electronic communications sector.

5. URCA's efficiency study does not provide a reasonable estimate of BTC's efficiency because of the limitations of the methodology used by URCA, in particular the choice of operators from countries with very different cost structures, the use of retail measures to set wholesale rates, the inability of the methodology to take economies of scale into consideration and the inability of the methodology to take traffic volumes into account.

6. BTC considers that regional benchmarks will provide a better estimate of efficiently incurred costs than URCA's proposals. The rates in other Caribbean countries have been subject to regulatory scrutiny and many are the outputs from cost models. For example, the fixed and mobile termination rates in Barbados, Cayman Islands, Dominica, Grenada, Jamaica, St Kitts, St Lucia and St Vincent are all based on cost models. These rates are more reflective of the scale of operations found on The

Bahamas and the costs of service on small islands than the approach taken by URCA. Hence BTC believes that these regional benchmarks should be used to set its interconnection charges for 2013. Based on the data in URCA's consultation paper, BTC has calculated the regional benchmarks for fixed and mobile termination rates, and therefore proposes the following rates for 2013:

- Mobile termination rate – 7.24 cents/min
- Intra island fixed termination rate – 1.38 cents/min
- Inter island fixed termination rate – 1.85 cents/min.

BTC's Answers to URCA's Consultation Questions

Question #1: Do you agree with URCA's stated rationale for the need to review BTC's RAIO charges on a regular basis in the current market environment?

BTC considers that RAIO charges should be reviewed from time to time to ensure other operators receive up to date "buy or build" price signals, and that BTC is adequately rewarded for the interconnection services that it provides. Network costs and traffic levels change over time, with the result that costs per minute may differ from year to year, and RAIO charges need to be revised to reflect these changes. However, as frequent price changes become costly to implement and make the market unstable, prices should be reviewed no more often than annually.

URCA's text leading up to this question mainly discusses the problems with developing a system of stable separated accounts. In BTC's view, it was inevitable that it would take some years before a totally new separated accounting system became stable, even without a change in the ownership of BTC, the introduction of a new billing system and the development of the next generation network (all of which have taken place at the same time as the separated accounts system has been being developed).

URCA's text itself does not discuss in any detail how "regular" a review of RAIO charges should be. As explained later, BTC considers that a multi-year approach, with rates set every three to four years, is preferable in principle to an annual setting of RAIO rates, but that this should be implemented once an acceptable starting point has been derived. A stable set of regulatory accounts is therefore necessary before a glide path can be implemented.

BTC has one important additional point to make about the rationale in this question.

It ignores the termination rates of other operators

Most national regulatory agencies accept that operators providing access networks have significant market power in their market for call termination on their network, and that as a result termination rates on all access networks (fixed and mobile) should be subject to regulatory intervention. As URCA will be well aware, a caller calling a customer on another network cannot choose the network to terminate the call on (this choice has already been made by the called customer), and hence the operator of the terminating network can use its market power to charge excessive termination rates. While URCA has recognised this case in the past, it has not yet undertaken any reviews of the termination market that will enable it to regulate the termination rates of CBL/SRG and any other operator providing an access network. URCA has stated that it will start a public consultation on the call termination market in June 2012[1]. BTC is not aware that this review has started, and urges URCA to do so as soon as possible.

This issue has a direct effect on BTC. During the interconnection negotiations undertaken by BTC in 2010, the other operators accepted a reciprocal termination rate in order to expedite the completion of the interconnection agreements. BTC is very concerned that there is now no incentive for the other operators to agree to change their termination rates in line with any changes

[1] URCA. Three year strategy and annual plan for 2012. ECS 24/11. 30 December 2011, Table 3 page 18.

proposed for BTC's termination rates. The asymmetry of rates between operators will result in an increasing deficit on BTC's call termination account, directly affecting BTC's profit and its ability to fund future network investments. BTC is of the view that URCA is discriminating unfairly against BTC by not reviewing the interconnection charges of the other operators at the same time as it is reviewing BTC's rates, and urges URCA to do this exercise at the same time so that the interconnection agreements between operators can be renegotiated once rather than twice.

Question #2: Please comment on the options for setting BTC's RAIO charges going forward (see table below), including their merits in the current context of the electronic communications market in The Bahamas.

We address each of the methodologies proposed below. The table referred to in question 2 is as follows:

Figure 2 – Options for setting BTC's RAIO rates

Approach	Main advantages	Main disadvantages
Annual update	• Could ensure that RAIO charges are reflective of efficient costs only • Reconciles to BTC's annual cost data • Does not require additional regulatory processes	• RAIO charges may fluctuate year-on-year (including increases) until the A/S results stabilise over time, increasing uncertainty for the market • Not possible to apply an annual efficiency target going forward based on the current efficiency study results • High regulatory costs and potential for delay
Multi-year glide path	• Certainty on RAIO charges going forward, ensuring they follow a stable path • Low regulatory cost once glide path is set	• Any prevailing shortcomings of the current A/S results will feed into RAIO charges for several years • No guarantee that RAIO charges will be cost based at the end of the glide path if based on historic A/S data
Benchmarking	• Removes uncertainty on RAIO charges due to underlying changes in A/S unit costs	• May not result in RAIO charges being cost based and reflective of efficiently incurred costs

Source: URCA

Annual updates

BTC agrees with the advantages as presented associated with the use of annual updates as a means to set RAIO rates. In addition, BTC believes that an important advantage to the use of the separated accounts is that it reflects the costs and revenues associated with providing telecommunications services in The Bahamas and therefore captures the unique operational circumstances associated with the roll-out of networks across multiple islands. As stated in BTC's response to the efficiency study, this operational environment results in relatively high unit costs as a consequence of the lack of scale effects (both across the network as a whole and across networks on individual islands).

The use of separated accounts also enables changes in traffic to be properly reflected in unit costs. It is likely that voice traffic on the fixed network will start to decline because of migration to mobile and IP networks, resulting in an increased cost per minute. At the same time, a growth in data traffic on the fixed network may result in more costs being allocated to data, but at present it is unclear whether these two trends will result in increasing or decreasing termination rates. The separated accounts enable these two trends to be captured properly.

On the disadvantages presented by URCA, BTC notes that the following main flaws are highlighted in relation to the use of BTC' separated accounts:

"due to issues regarding availability of reliable data within BTC and ongoing significant restructuring changes at BTC, BTC's A/S results continue to display a high degree of instability. Therefore this approach, especially in earlier years, could lead to fluctuations in the RAIO charges on a year-on-year basis (including potential future increases) until BTC's A/S results stabilize over time. This is likely to increase uncertainty for the market".

This raises an important question because, if URCA perceives the accounts to be 'unstable', than care should be taken if they are to be used as the starting point to set glide-paths for RAIO rates. There is a risk that any flaws in the separated accounts would get enshrined in the RAIO tariffs for a prolonged period of time, which is at odds with the principle that RAIO rates should be cost-oriented.

Another disadvantage to the use of the separated accounts is that they are based on historical accounting costs and can therefore not be used to set forward-looking rates.

BTC disagrees that there is a significant regulatory cost associated with the use of the separated accounts. The main regulatory cost lies in the development of the accounts by BTC, based on guidelines provided by URCA. Assuming that the development of separated accounts remains an obligation on BTC, the incremental regulatory cost of using the outputs for tariff purposes is minimal.

Finally, BTC is concerned about the use of outputs of the 2009 separated accounts. Clearly the preference should be to use more recent cost data and to include the improvements made to the methodology as per URCA's instructions, but as URCA notes the 2010 S/A are 'unstable' for the purpose of setting RAIO rates. It is BTC's position that the 2009 S/A now do not form a better basis to set rates than the 2010 S/A. These accounts are based on accounting information from three years ago and in addition, they were not audited. The 2009 S/A also suffer from similar drawbacks to the 2010 S/A, including:

- Traffic data: data extracted from switches, the Converging and Moneta systems were automatically overwritten after a period of time. This has implications for local traffic volumes which invariably impacts unit costs for wholesale services. More specifically, BTC has since come to the conclusion that call volumes for local calls are overstated to a significant degree which would have a significant upward impact on unit costs (including those for interconnection) if adjusted.

- The use of management estimates in a number of areas, including the calculation of volume data given the limitation in data recording and retention.

PWC, the auditors of the BTC 2010 S/A issued a Qualified Opinion mainly due to the inability to prove the completeness and accuracy of data extracted from internal sources, switches, billing and management systems or based on management estimates. BTC believes that such a qualified opinion would likely apply to the 2009 S/A as well had they been audited.

Multi-year glide-path

In principle, BTC agrees that the introduction of a glide-path for RAIO services would improve predictability and certainty to market participants. However, there are several problems with the use of glide-paths. One of them is mentioned by URCA as a drawback to the use of annual updates but in fact this applies to glide-paths as well – i.e. it is not possible to apply an efficiency target going forward based on the current efficiency results. Unfortunately this is exactly what URCA is proposing by applying the efficiency target resulting from its efficiency study to the 2009 separated accounts outputs and using the resulting unit costs as the end-point of the glide-path (i.e. for 2014/2015 for fixed termination and 2016/2017 for mobile termination). URCA is therefore proposing to apply an efficiency target (itself based on historic cost data) to an outdated and unstable set of separated accounts and to thus somehow derive an efficient cost estimate on a forward-looking basis, while ignoring factors like the projected evolution of service volumes, inflation, changes in equipment costs etc. It is clear that this is not possible and should not be attempted with the tools available to URCA.

BTC believes that, while the use of glide-paths has clear merits, such an approach should only be imposed if the underlying tools to set tariffs are stable. In The Bahamas this is not currently the case as the glide-path would be the result of a combination of separated accounts outputs which in URCA's own words are 'unstable' and the efficiency targets which have been compiled by:

- Using overall cost benchmarks (of retail and wholesale combined) to derive efficiency estimates for parts of the business (wholesale);
- Using a sample of countries with very different operational characteristics to The Bahamas;
- Ignoring PPP (Purchasing Power Parity) differences between The Bahamas and other countries, and;
- Not taking account of scale effects because URCA found no evidence of scale effects in their sample.

The last point in particular is of great concern to BTC because scale effects are in fact one the main reasons why sector-specific ex ante regulation is needed in the telecommunications sector so to not take these into account in an efficiency study as when comparing BTC's unit costs with much larger carriers introduces significant risk of regulatory error, as do the other points.

There is therefore a significant risk that the development of a glide-path at this stage would result in regulatory errors in BTC's RAIO rates and such an approach would result in tariffs not being cost-oriented. This suggests that the better approach would be to delay the introduction of glide-paths until the separated accounts outputs are deemed stable for RAIO tariff purposes.

Benchmarked RAIO charges

As URCA points out, using benchmarks would remove uncertainty relating to the separated accounts but the resulting RAIO charges may not be considered cost-based and reflective of efficiently incurred costs only. BTC agrees that there are drawbacks to the use of benchmarks some of which are similar to the issues identified in the efficiency study and they largely relate to the problems attempting to make costs from different countries and operational circumstances comparable with those of BTC.

However, URCA has been happy to use benchmarks to set BTC's RAIO rates in the past and has not proposed to changing these tariffs or their methodology as part of the current consultation on RAIO rates. This would suggest that URCA is prepared to use benchmarks in the process of setting tariffs for RAIO services, as a sanity check as presented in the consultation documents, but also to set RAIO tariffs outright as has happened in the past (with those tariffs still in force today). Benchmarks are used by other national regulatory authorities in the Caribbean region (such as Anguilla, British Virgin Islands, Trinidad and Tobago and the Turks and Caicos Islands) to set termination rates, and these authorities are content that their benchmarks satisfy the legal requirements for efficiency and cost orientation.

BTC therefore suggests that at this stage, the use of benchmarks to set RAIO rates is defensible and would provide for a more stable and predictable regulatory environment than the alternative approaches suggested by URCA. We set out in our answer to Question 4 how such a regime based on benchmarks could be implemented.

Question #3: Please comment on URCA's proposed approach on setting BTC's RAIO charges going forward.

It is very important for URCA to appreciate the difference between fixed and mobile termination rates and how the level of these rates affects the promotion of competition and the interests of persons in The Bahamas. We set out those differences in the next sections.

The market for calls terminating on BTC's mobile network

Almost uniquely in the Caribbean[2], in The Bahamas the receiving party calls (RPP) or mobile party pays (MPP) principle applies for domestic calls to mobile subscribers. Mobile customers pay a retail tariff for receiving calls from other

[2] In Barbados RPP also applies.

networks and there is therefore no wholesale charge (Mobile Termination Rate or MTR) between operators for domestic traffic to mobile customers. As a consequence, the level of the MTR does not impact on the development of competition or on price levels in any domestic retail market, including those retail markets where BTC has Significant Market Power (SMP). By contrast, in the vast majority of Caribbean markets the calling party pays (CPP) principle applies and in these markets the level of the MTR is crucial to the development of competition in related domestic retail markets for calls to mobile networks. It is important to recognize this difference when looking at other markets for inspiration on appropriate regulatory intervention.

In The Bahamas, the *only* market where the level of the MTR is relevant is the market for inbound international calls terminating on BTC's mobile network. This market consists of 4 sub-markets, as follows:

- The mobile call termination market – here the MTR is a major driver of wholesale revenues for the terminating operator (in this case BTC).
- The market for international transit (in The Bahamas) – this is a 'pass-through market' with low barriers to entry, i.e. operators in this market layer a margin on top of the MTR to obtain the market rate. The level of the MTR charged by BTC does not therefore determine the ability of players in this market to compete as long as BTC provides mobile termination rates services on non-discriminatory and transparent terms (and BTC does this already through the RAIO).
- The market for international transit (in Country X) – this is again a 'pass-through' market with operators in this market layering a margin on top of the tariff charged by operators further up the supply chain.
- The retail market for international calls from Country X to The Bahamas. This is the only retail market affected by the level of the MTR charged in The Bahamas. In other words, lowering the MTR in The Bahamas has the potential to lower call tariffs in the country of origination for calls to The Bahamas.

Figure 3 – Supply chain for inbound international calls

Note: wholesale markets (1, 2 and 3) are depicted in blue, the retail market (4) in red.

URCA's objectives, as set out in the Communications Act, 2009 are to act in the interests of person in The Bahamas[3]. This is reinforced by the Government's sector policy, which also emphasizes the need to promote efficiency in the Bahamian communications sector, to further the interests of Bahamians, and to maintain the competitiveness of electronic communications services in The Bahamas[4].

It is clear from the supply chain presented in Figure 3 that URCA's activities to lower the MTR in The Bahamas will benefit retail customers in markets *outside* The Bahamas and will lower wholesale revenues accruing to operators *in* The Bahamas by an estimated $1-1.5 million per year. This would lower the ability of operators in The Bahamas to invest in infrastructure, to pay dividends to their shareholders and to pay taxes to the government and this is therefore the exact opposite of what URCA should be aiming to achieve. For the same reason glide-paths are not beneficial in this market as the benefits of additional transparency ultimately do not flow to retail customers in The Bahamas. In BTC's view the implementation of URCA's proposals for mobile termination rates would be contrary to the Communications Act and the Sector Policy.

An additional factor in this market is that BTC sends international traffic to mobile networks in international destinations and that the MTR in those countries is the

[3] Communications Act section 4(b)

[4] Government of the Commonwealth of The Bahamas. Electronic communications sector policy. 7 October 2009. Paragraph 12, pages 6-7.

main driver of the out-payment for such traffic charged to BTC. By lowering MTRs in The Bahamas aggressively, URCA puts BTC at a disadvantage relative to carriers in such countries and again this goes against the interest of The Bahamian Telecommunications industry and the country's balance of payments. An example would be Haiti, where the government has imposed a 5 cents/min surcharge on all inbound international traffic. BTC pays between 24 and 30 cents per minute to terminate calls on mobile networks on Haiti (depending on the operator), and this puts BTC existing charge of 7.24 cents for calls coming in the opposite direction into its international context.

BTC therefore suggests that MTRs should be set on the basis of international benchmarks so as to not disadvantage The Bahamas relative to its international trading partners for voice traffic. The use of benchmarks is an approach accepted by URCA for other RAIO services and this would therefore not constitute a change in policy in relation to RAIO charges in general.

The market for fixed call termination

For calls terminating on BTC's fixed network the above dynamics apply as well, but in the case of fixed termination rates (FTR) there is a direct impact on associated retail calling markets (for fixed telephony and mobile telephony) where BTC has SMP. The level of the FTR is therefore more relevant to the development of competition in The Bahamas.

As stated in earlier sections, BTC believes that URCA is currently not in a position to implement either annual updates or a glide-path using the separated accounts and benchmarking presents the best option out of those presented.

We will set out our proposed approach in the benchmarking methodology presented under Question 4.

Question #4: Please comment on the expected level of RAIO charges up to 2014/2015 based on URCA's proposed approach.

For the reasons given above, BTC concludes that URCA's proposed approach to setting termination rates does not result in prices that reflect efficiently incurred costs. Rather its methodology starts from separated accounts that do not yet provide a good estimate of unit costs, applies an "efficiency" reduction that contains many methodological flaws, and tries to justify this by comparisons to countries that bear little relation to the particular operating circumstance of The Bahamas. As a result BTC cannot support URCA's methodology or agree to produce termination rates based on this methodology.

BTC does not accept the termination rates proposed by URCA in Table 4 of the Consultation Document, and notes that the proposals for the fixed termination rate do not constitute a three year glide path because the changes take place over two years only.

In order to provide a positive response, BTC proposes that URCA should set the termination rates for 2013 based on regional benchmarks. In Figures 3 and 4 of URCA's consultation paper, URCA shows the fixed and mobile termination rates in 32 European countries, 12 Caribbean countries, and Bahrain. BTC considers that the European countries do not provide a fair benchmark for The Bahamas because:

- The higher levels of GDP lead to higher traffic volumes (voice and data), and hence lower costs per minute
- The larger networks lead to economies of scale which are not available to smaller operators such as those in the Caribbean, again leading to lower costs per minute
- None of these countries are archipelagos, which create higher costs per minute because of the need for submarine transmission links and to service small islands.

BTC also considers that Bahrain is not a suitable comparator for The Bahamas for the first and last reasons above.

The Caribbean region provides a good benchmark for efficiently incurred costs in The Bahamas because the economies of scale, levels of GDP and the costs of operation on small islands are closest to those found in The Bahamas. In the table below we show below how termination rates have been set by the national regulatory authority for the Caribbean countries in URCA's benchmark as shown in Figures 3 and 4 of URCA's consultation paper.

Figure 4 – Methodologies to set regional termination rates

Country	MTR	FTR
Anguilla	Regional benchmarks	Regional benchmarks
Barbados	FAC model	FAC model
British Virgin Islands	Regional benchmarks	Regional benchmarks
Cayman Islands	FL-LRIC model	FAC model
Dominica	ECTEL LRIC model	ECTEL LRIC model
Grenada	ECTEL LRIC model	ECTEL LRIC model
Jamaica	Top down LRIC model and FAC model	FAC model
St Kitts	ECTEL LRIC model	ECTEL LRIC model
St Lucia	ECTEL LRIC model	ECTEL LRIC model
St Vincent	ECTEL LRIC model	ECTEL LRIC model
Trinidad and Tobago	Regional benchmarks	LRAIC model
Turks and Caicos Islands	Regional benchmarks	Regional benchmarks

This table shows that the use of regional benchmarks is well established in the region, and that in several countries, especially in the ECTEL area, cost models have been used to set rates. Hence BTC is confident that the outcome of a regional benchmarking exercise produces a result that is closer to efficiently incurred costs in The Bahamas than URCA's methodology. Two of the flaws in URCA's efficiency study (as acknowledged by URCA) were that no distinction could be made between retail and wholesale costs obtained from other operators and that usage data was not available to calculate differences in unit costs. Both of these factors are important and both factors would have been taken into account in the various cost models that provide the foundation for the above tariff decisions. For this reason, BTC believes benchmarks are likely to provide a superior basis for setting RAIO tariffs than URCA's proposal to use the current S/A combined with the efficiency targets.

Using the rates in URCA's benchmark, we have calculated the average benchmark for the Caribbean countries shown above as:

- Fixed termination rate – 1.55 cents
- Mobile termination rate (excluding Barbados as an outlier) – 7.60 cents

We show below the mobile and fixed termination rate benchmark, with the rates proposed for 2013 for The Bahamas:

Figure 5: Regional mobile termination rate benchmark

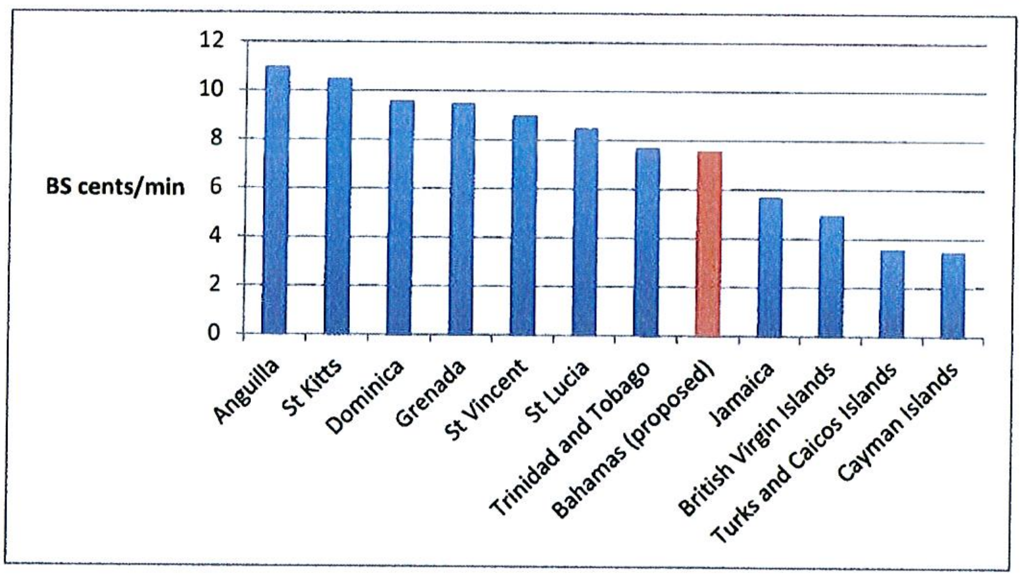
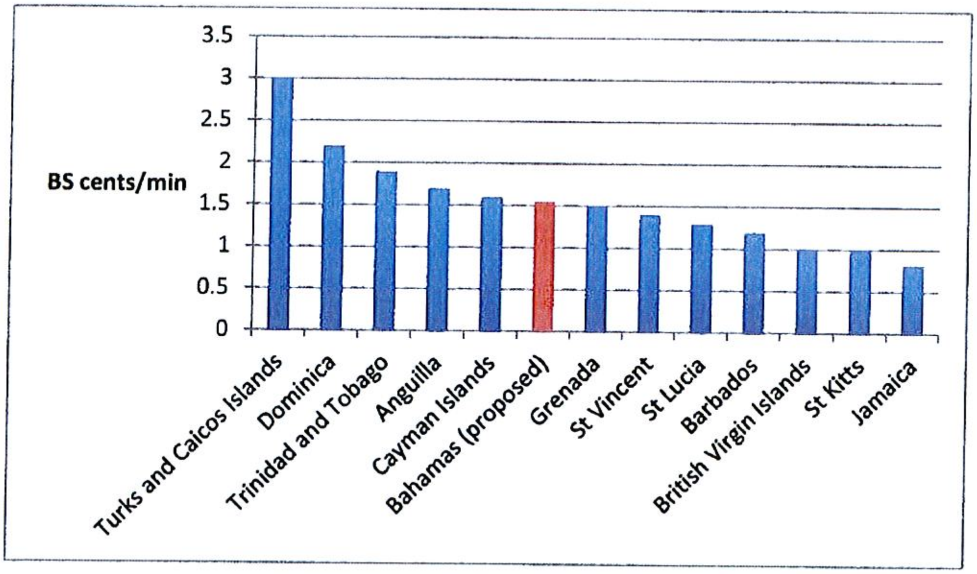


Figure 6: Regional fixed termination rate benchmark



BTC therefore proposes the termination rates as shown below:

Figure 7 – BTC's proposed termination rates

		Current RAIO	2013
Fixed termination rate	Intra island	1.98	1.38
	Inter island	2.65	1.85
Mobile termination rate		7.24	7.24

The proposed BTC fixed termination rates are based on the average benchmark, with the intra-island and inter-island categories weighted by traffic. Although the current mobile termination rate is slightly below the benchmark, BTC considers that the 2013 rate should remain the same in order to provide some stability to the market.

Reservation of Rights

BTC has addressed the issues but reserves the right to comment further on all issues and states categorically that the decision not to respond to any issue raised on this Consultation in whole or in part does not necessarily indicate agreement in whole or in part with URCA's position; nor does any position taken by BTC in this consultation mean a waiver of any of BTC's rights in any way. BTC expressly reserves all its rights.

Legal, Regulatory and Carrier Services Division

The Bahamas Telecommunications Company Limited (BTC)

September 3, 2012