[On Digicel TCI Letterhead]

September 16, 2016

Mr. John Williams
Director General
Turks & Caicos Islands
Telecommunications Commission
P.O. Box 203 Business Solutions Complex
Leeward Highway
Providenciales

Dear Mr. Williams,

Re: National Fiber Ring Proposal

Digicel thanks the Commission for the opportunity to comment on its proposals on the construction of a national fiber ring in the Turks and Caicos Islands. We agree that it is necessary to establish an alternative route to supplement ARCOS-1. As the Government has correctly noted, the need for resilience is important. In addition, additional subsea capacity would be necessary to spur competition and to enhance the quality of data services in the Turks and Caicos Islands. However, we have put forward for consideration by the Government specific technical recommendations as to how best Government may approach construction of the fiber ring to obtain the best value for money.

1. **Fibre Route**

   Digicel has looked in detail at the options surrounding cable routing into and between the Turks and Caicos Islands. The general lack of risk to cable from commercial fishing, anchoring or other man made or natural hazards means that the additional significant cost of double landings on each island can be reduced by using a trunk and branch design. The trunk and branch design also reduces duplication of equipment at each of the In/Out landings thereby reducing the cost further. The trunk and branch design also means that only one cable at each intermediate island crossing any offshore reefs thereby minimising any environmental issues.

   i. <u>Option 1 (Red)</u>

   Digicel considers that Option 1, whilst it would serve to provide coverage to the major Islands, by using a festoon design, would necessarily lead to increased costs and potential duplication of equipment at the In/Out landings.

   The absence of a redundant path would also mean that there would still be a significant reliance on radio links for back-up in case of failure.

   ii. <u>Option 2 (Blue)</u>

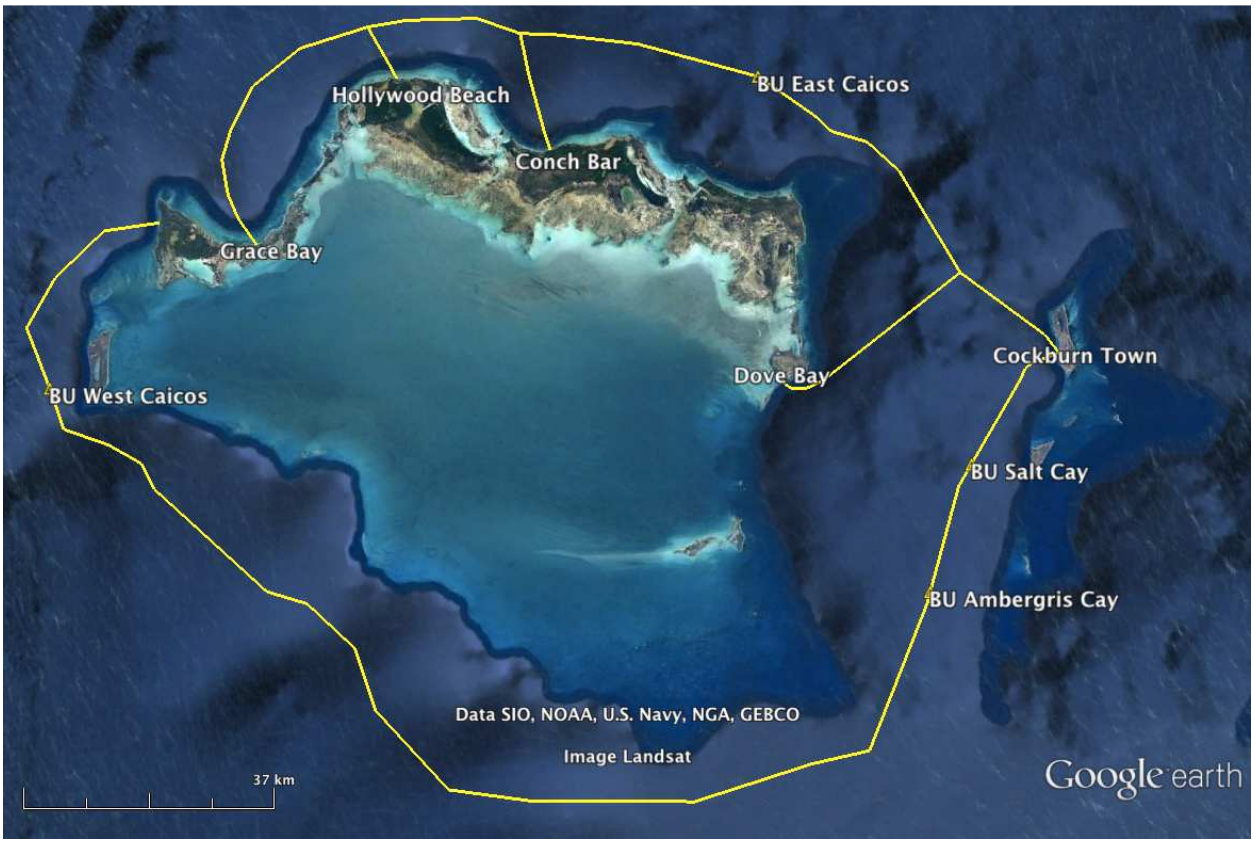
Digicel believes that whilst Option 2 provides the back-up path that is lacking in Option 1, we note that there is a reliance on the South Caicos site as the hub for Grand Turk and Salt Cay, with no back up or restoration path for these islands.

iii. Option 3 (Yellow)

We believe that this is the most complete route suggested by Government and which can provide resilience around the islands. However, we still do not believe that this is the best design for the Turks & Caicos Islands as there is still a reliance on intermediate islands to provide the main and backup route between Providenciales and Grand Turk.

Digicel Recommendation

Current technology will easily allow 300km of separation between terminal stations on unrepeatered cable systems at large capacities (minimum of forty 100Gbit/s wavelengths per fibre pair) at reasonable cost. Digicel therefore proposes a trunk and branch design as shown in the attached picture.



The northern route could be built as a Phase 1, with direct fibre pairs between Providenciales and Grand Turk and fibre pairs between the intermediate islands. The southern loop could, if required, be built in Phase 2. This would close the loop between Providenciales and Grand Turk as well as provide potential spurs to the southern islands.

It is our view that this would be a more cost effective solution than the festoon solutions as it reduces the number of landings significantly, which are a major cost. Digicel accepts that this has an increased risk regarding the single point of failure of the cable coming into an island, however, as previously stated, the risk from either manmade or natural aggression in these waters is very small.

2. Landing Sites

i. Providenciales

We agree that the Leeward side of the Island can be used as a landing site for the main northerly connection towards Grand Turk. We believe the Grace Bay area to be a suitable landing.

ii. North Caicos

Digicel believes that Hollywood Beach is a more suitable site on North Caicos with the offshore reef being slightly closer to the beach than at Horse Stable Beach and therefore easier to bring the shore end cable ashore.

iii. Middle Caicos

Digicel agrees that the Conch Bar area is the best for a landing on Middle Caicos.

iv. South Caicos

Having looked carefully at the island and the feasibility of bringing a cable ashore at the lowest cost, we are of the view that Dove Bay would be a more suitable landing site for a cable onto South Caicos.

v. Salt Cay

For shortest routing and ease of access, we consider that the beach near the power station is the most suitable for the landing on Salt Cay.

vi. Grand Turk

Digicel has looked at the options on Grand Turk and believes that a landing on the middle west side is more suitable as it avoids the potential for anchoring from the cruise ships and the airport in the south as well as the pumping station and grounds in the north west.

vii. Private Cays

Digicel would be willing to work with the Commission and the owners of the Private Cays to ascertain the most cost effective and technically sound solution for these Cays

3. Cost

Digicel believe that with modern technology and future enhancements to that technology will mean that a 24 fibre system should suffice and reduce the overall costs for the cable.

Please do not hesitate to contact me should you require further details as to any of the matters set out herein. Digicel would be willing to meet and to share with Government further details in relation to any of these recommendations, including any design evaluations as Government might consider necessary.

Yours sincerely,

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Sinead O'Marcaigh
CEO
Digicel TCI