



**TURKS AND CAICOS ISLANDS  
TELECOMMUNICATIONS COMMISSION**

**INVITATION TO COMMENT  
ON  
NATIONAL FIBER RING  
PROPOSAL**

**August 30, 2016**

**PUBLIC NOTICE 2016-7**

## Table of Contents

<b>INTRODUCTION .....</b>	<b>2</b>
<b>PART A: INSTRUCTIONS TO COMMENT.....</b>	<b>3</b>
<b>    SUBMISSION.....</b>	<b>3</b>
<b>PART B: GENERAL REQUEST .....</b>	<b>3-5</b>
<b>ANNEX 1: ARCOS-1.....</b>	<b>6</b>
<b>ANNEX 2: NATIONAL FIBER OPTION.....</b>	<b>7</b>

## INTRODUCTION

The Turks and Caicos Islands Government (TCIG) has authorized the Telecommunications Commission (Commission) to investigate and consult with the industry and present to TCIG the best case scenarios on establishing a national fiber ring. The ring is to connect each inhabited island, in particular, the nation's capital (Grand Turk), to solve the broadband capacity and quality of service issues and to maintain connection in the event of a hurricane. The proposal will include options of connectivity and cost analyses for a long term broadband solution for the Turks and Caicos Islands (TCI).

## BACKGROUND

The TCI's **“only”** international communication access is via The Americas Region Caribbean Ring System (ARCOS-1), a fiber optic submarine communication cable of 8,400 kilometers linking Turks and Caicos with Bahamas, Dominican Republic, Puerto Rico, Curaçao, Venezuela, Colombia, Panama, Costa Rica, Nicaragua, Honduras, Guatemala, Belize, Mexico and Florida. The system consists of six (6) STM-16 optical channels, and function with totally duplicated terminal equipment in a 4 fiber ring which provides a self-healing protective function (Annex 1).

The TCI sub-segment consists of cable landing, cable station and equipment at the system interface level. The routing of the cable system and the system landing site is located at North West Point, which is licenced to Columbus Network, a subsidiary of Liberty Global. The network provides wholesale broadband capacity to licenced telecommunications providers.

While the broadband connectivity to Providenciales may be acceptable, Grand Turk and the other family islands' connectivity uses microwave links, which poses many challenges and is unstable during times of a hurricane.

The Commission is inviting the industry to provide comments and/or recommendations on the best options for the implementation of a TCI national fiber ring connecting all inhabited islands. The options should include a second international link.

## PART A: INSTRUCTIONS TO COMMENT

### 1. **Submission**

- 1.1 Comments should be submitted to the Commission within 3 weeks of the publication of this notice, and should reach the Commission by September 16, 2016, at the office at Business Solutions Building, Leeward Highway, Providenciales, Turks and Caicos Islands, or by mail to P.O. Box 203, Providenciales, Turks and Caicos Islands, or electronically via email at [consultations@tcitelecommission.tc](mailto:consultations@tcitelecommission.tc). All submissions should be filed electronically even if also filed in paper form.
- 1.2 Comments will be reviewed at a scheduled meeting of the Commission.

## PART B: GENERAL REQUEST

### 2. **Fiber Route**

The Commission is seeking comments on (annex 2) with three (3) route options for consideration as follows.

#### 2.1 **Option 1 (Red)**

The Commission is proposing to connect each inhabited island through deep water fiber. Carriers will need to have microwave links for backup in the event of a cable breakage.

*Please provide your opinion or recommendations on option 1.*

#### 2.2 **Option 2 (Black)**

The Commission is proposing to connect each inhabited island with a continuous deep water fiber ring looping from South Caicos back to Providenciales, and connecting Grand Turk and Salt Cay with a spur from South Caicos.

*Please provide your opinion or recommendations on option 2.*

#### 2.3 **Option 3 (Yellow)**

The Commission is proposing to connect each inhabited island with a continuous deep water fiber ring (self-healing) with offshore connection points for future connections to islands that are not currently inhabited.

*Please provide your opinion or recommendations on option 3.*

Additionally, if you have any other options not considered here, please feel free to submit them in your response.

### **3. Landing Sites**

#### **3.1 Providenciales**

For diversity and ease of access, the Commission is proposing that the national fiber ring landing site be installed in the Leeward area. Connectivity to ARCOS international cable can be through the existing land-based fiber networks.

*Please provide your opinion or recommendations on the best location for a national fiber ring landing site.*

#### **3.2 North Caicos**

For current and future broadband enhancement for the Island of North Caicos the Commission is proposing that a landing site be somewhere central, i.e. Horse Stable Beach area.

*Please provide your comments on the above, and provide other suggestions if your opinion differs.*

#### **3.3 Middle Caicos**

For current and future broadband enhancement for the Island of Middle Caicos the Commission is proposing that a landing site be somewhere central, i.e. Conch Bar/DC Office area.

*Please provide your comments on the above, and provide other suggestions if your opinion differs.*

#### **3.4 South Caicos**

For current and future broadband enhancements for the Island of South Caicos, the Commission is proposing that a landing site be on the North-East side of the island.

*Please provide your comments on the above, and provide other suggestions if your opinion differs.*

#### **3.5 Salt Cay**

For current and future broadband enhancements for the Island of Salt Cay the Commission is proposing that a landing site be on the south-west side of the island (near Power Station) or on the north-east side of the island (just beyond Lovelace property).

*Please provide your comments on the above, and provide other suggestions if your opinion differs.*

### **3.6 Grand Turk**

For current and future broadband enhancements for the island of Grand Turk, the Commission is proposing that a landing site be on the north side of the island near the lighthouse (preferred) or on the south side of the island near Hawks Nest.

*Please provide your comments on the above, and provide other suggestions if your opinion differs.*

### **3.7 Private Cays**

Considering that some cays are privately owned, the Commission is proposing that the cays be connected to the closest landing site.

*Please provide your comments on the above, and provide other suggestions if your opinion differs.*

## **4. Cost**

4.1 The Government expects this investment to serve the TCI well into the future, hence the Commission is proposing that a 48 strand fiber cable be used.

*Please provide your comments or suggestions on the fiber count to be used.*

4.2 The Commission realizes that there are other options available to satisfy the requirements of the national fiber ring. If the option you prefer differs from the options provided by the Commission, please provide your options and the estimated costs.

# Annex 1



## Annex 2

