



BERMUDA
**REGULATORY
AUTHORITY**

Spectrum Licence Other Mobile Radio Service

Licensee: Telecommunications Networks Limited

Address: P.O. Box CR233
Crawl
Hamilton Parish CR BX

Licence Number: 019-OMR-02

Issue Date: 30 October 2014

Expiry Date: 29 October 2024

The Regulatory Authority of Bermuda, in the exercise of the authority conferred upon it by the Electronic Communications Act 2011, hereby grants to Telecommunications Networks Limited this Radio Spectrum Licence, which provides the right to use the assigned Radio Spectrum in accordance with the terms and conditions of this Licence and its Schedules, the terms and conditions of the Licensee's associated Integrated Communications Operating Licence, the Electronic Communications Act 2011, the Regulatory Authority Act 2011, and any Regulations, General Determinations, Adjudicative Decisions, Orders or Directives made or issued in accordance with these Acts and applicable international treaties and regulations.

1 DEFINITIONS AND INTERPRETATION

1.1 In this Licence, unless the context otherwise requires:

“Assigned Frequencies” means the frequencies assigned to the Licensee, as set forth in Schedule A attached hereto;

“Associated ICOL” means the Integrated Communications Operating Licence granted to the Licensee;

“Authority” means the Regulatory Authority;

“Authorised Use” means the use of the Assigned Frequencies as described in Condition 3.1 of this Licence;

“Bermuda Frequency Assignment Register” means a register containing a table of radio frequency spectrum assignments, including the name of the licensee, the frequencies assigned, the Authorized Use(s) and any other relevant information contained in Schedule A;

“Commercial Mobile Radio Service” means a Radiocommunication Service, the functionality of which enables the continued use of such service during movement between radio coverage cells with no interruption of service during the handover from cell to cell, or as otherwise defined by the Authority;

“Co-Primary Basis” means the nature of a right granted to the holder of a Radio Spectrum Licence to use specified frequencies, subject to the condition that the licensee shall coordinate with other Co-Primary licensees to limit Harmful Interference to existing links and services operating in the relevant frequency bands, and facilitate the introduction of additional links and services in the relevant frequencies. Co-Primary licensees shall refrain from causing Harmful Interference to, and may not require protection from, the links and services of other Co-Primary licensees that were previously authorized and operating in the licensed frequencies. All Co-Primary licensees are authorized to use the frequencies covered by their respective licences subject to protection from: (1) Harmful Interference caused by any other licensee that may be authorized to use the same Radio Spectrum on a Secondary Basis; and (2) claims of Harmful Interference from holders of secondary licences with respect to the frequencies;

“Control” means:

- (a) the power, whether held directly or indirectly, to exercise decisive influence over the Licensee, including by directing its management and policies, whether through

ownership of shares, stocks or other securities or voting rights, or through an agreement or arrangement of any type, or otherwise; and

- (b) shall, in any event, be deemed to exist in any case involving the ownership of 25 per cent or more of the shares, stock or other securities or voting rights, including through an agreement or arrangement of any type;

“Distress signal” means radio signals broadcast to indicate that a person, ship, aircraft or other vehicle is in distress and requires immediate assistance;

“ECA” means the Electronic Communications Act 2011;

“ITU” means the International Telecommunication Union;

“Licence” means this Radio Spectrum Licence granted to the Licensee;

“Licensee” means Telecommunications Networks Limited and, for the avoidance of doubt, does not include any Affiliates of the Licensee;

“Other Mobile Radio Service” means a one-way or two-way Radiocommunication Service between a fixed Radio Station and mobile Radio Station or between two mobile Radio Stations, but does not include Commercial Mobile Radio Service.

“Primary Basis” means the nature of a right granted to the holder of a Radio Spectrum Licence, pursuant to which the licensee is the only Person authorized to use the specified frequencies who is also entitled to protection from: (1) Harmful Interference caused by any other licensee who may be authorized to use the same spectrum on a Secondary Basis; and (2) claims of Harmful Interference by any such licensee;

“RAA” means the Regulatory Authority Act 2011;

“Secondary Basis” means the nature of a right granted to a holder of a Radio Spectrum Licence that is authorized to use specified frequencies subject to the condition that such licensee does not cause any Harmful Interference to, or claim protection from any Harmful Interference caused by, other licensees who have been granted the right to use the same frequency bands on a Primary or Co-Primary Basis; and

“Sub-license” means any segregation or partition of the radio frequency usage rights granted herein and shall include any arrangement by the Licensee to share radio frequency rights with one or more third parties, including any Affiliate.

- 1.2 For the purpose of interpreting this Licence, words or expressions shall have the meaning assigned to them in the Associated ICOL, unless otherwise specified, and the rules of interpretation in Condition 2 of the Associated ICOL shall apply.

2 **ASSIGNED FREQUENCIES AND USAGE RIGHTS**

- 2.1 Subject to the Applicable Regulatory Framework, the Associated ICOL and the terms and conditions of this Licence, the Licensee is hereby authorized to use the Assigned Frequencies. The Licensee shall have the right to use the Assigned Frequencies on a

Primary Basis. Schedule A shall be revised and updated, as necessary, to reflect the assignment of frequencies under this Licence.

- 2.2 The Licensee shall comply with any technical or other requirements that the Authority may adopt in respect of the Authorized Use.
- 2.3 The Licensee shall utilize the Assigned Frequencies in full conformity with the Bermuda Frequency Allocation Table and the Bermuda Frequency Assignment Register maintained by the Authority, including any amendments thereto, subject to Condition 3 of this Licence.

3 SCOPE OF LICENCE

- 3.1 This Licence grants the Licensee the right to use the Assigned Frequencies in conjunction with the Associated ICOL, exclusively for the provision of Other Mobile Radio Services.
- 3.2 This Licence does not grant the Licensee any ownership rights in the Assigned Frequencies, and no such rights shall be created or implied by virtue of the Licensee's use of the Assigned Frequencies.
- 3.3 The Licensee shall not use the Assigned Frequencies in the provision of Public Electronic Communications Services unless the Associated ICOL is and remains valid and effective.
- 3.4 Nothing in this Licence shall relieve the Licensee of the obligation to comply with any other requirement of law or practice to obtain additional consents, permissions, authorizations, licences or permits as may be necessary to operate Radio Apparatus or Radio Stations, establish, construct and operate an Electronic Communications Network, or provide Electronic Communications Services.

4 GRANT AND DURATION OF THE LICENCE

This Licence is valid and effective from the date hereof and shall remain in effect, provided that the Associated ICOL is valid and effective, until the earlier of:

- (a) 29 October 2024;
- (b) the date on which the Licensee surrenders this Licence;
- (c) the date on which this Licence is revoked pursuant to Section 93(5) of the RAA; or
- (d) the date on which this Licence is replaced with a new licence that reflects any changes made by the Minister or the Authority, as the case may be, in the statutory instruments, administrative determinations, authorizations and adjudicative decisions and orders or their equivalent that were made or given effect under the Telecommunications Act 1986.

5 RENEWAL

- 5.1 This Licence may be renewed, at the discretion of the Authority, for a term not to exceed ten years, provided that the duration of the renewed Licence shall not exceed that of the Associated ICOL.

5.2 This Licence may only be renewed if the Associated ICOL remains valid and effective.

6 MODIFICATION

This Licence, including its Schedules, may be modified by the Authority:

- (a) with the consent of the Licensee;
- (b) pursuant to the provisions of Section 51 of the RAA and Section 9(2)(c)(i) of the ECA;
- (c) to conform to the terms and conditions of the Associated ICOL, including any modifications thereto;
- (d) to bring the terms of the Licence into conformity with international treaty obligations or regulations or the Applicable Regulatory Framework (including the Bermuda Frequency Allocation Table);
- (e) following an enforcement proceeding, pursuant to the provisions of Section 93 of the RAA; or
- (f) following the conclusion of a spectrum investigation pursuant to Section 78 of the ECA or following an adjudication pursuant to Section 41 of the ECA.

7 OBLIGATIONS UNDER THE LICENCE

7.1 The Licensee shall comply with existing and future international coordination requirements and procedures, including the relevant international Radio Regulations issued by the ITU. Upon request of the Authority, the Licensee shall provide technical assistance and support to the Minister and the Authority in connection with the Government of Bermuda's participation in regional and international governmental organizations for purposes of spectrum management and coordination.

7.2 The Licensee shall coordinate, when necessary, with other Radio Spectrum licensees in Bermuda to avoid Harmful Interference. In the event of a disagreement between or among licensees regarding the prevention or causation of Harmful Interference, the affected licensees shall be responsible for resolving such disputes expeditiously and, if such efforts are unsuccessful, one or more of the licensees involved may request that the Authority intervene to resolve the dispute.

7.3 The Licensee shall assist the Authority in the coordination and management of Radio Spectrum and shall make efficient use of the Assigned Frequencies for the Authorized Use. The Licensee shall notify the Authority promptly if the Licensee no longer requires the use of any or all of the Assigned Frequencies.

7.4 The Licensee shall cooperate fully with the Authority in identifying whether and to what extent the Assigned Frequencies are being used efficiently and whether the Licensee has a reasonable need for all or a portion of the Assigned Frequencies in accordance with Section 78 of the ECA, including as follows:

- (a) The Licensee shall promptly provide any information requested by the Authority concerning the Licensee's actual or proposed use of the Assigned Frequencies and other Radio Spectrum resources.
- (b) The Licensee shall submit to the Authority, no later than six months following the effective date of this Licence, a report approved by the Licensee's Board of Directors containing a detailed analysis of spectrum usage by the Licensee, in the format prescribed by the Authority, in relation to services that were provided using the Assigned Frequencies for the Authorized Uses as at the date of the commencement of Part 12 of the ECA.
- (c) The Licensee shall comply fully with any timetables established by the Authority for the release of any of the Assigned Frequencies if required by the Authority, provided that the timetable for release shall commence no sooner than 29 October 2014.

7.5 Subject to the provisions of Section 92 of the RAA, the Licensee shall permit the Authority or Persons designated by the Authority to enter the Licensee's premises, and shall facilitate access by them to premises used by the Licensee, to inspect, examine, investigate or audit the Licensee's use of Radio Stations, Radio Apparatus and Radio Spectrum.

7.6 The Licensee shall accept distress signals and messages with absolute priority as required by Section 43(5) of the ECA and take any necessary actions as required by the Convention.

7.7 The Licensee shall provide one or more forms of Wholesale wireless access, including a resale offer, on a non-discriminatory basis, if the Authority determines, following a Public Consultation, that such arrangements are necessary for the benefit of consumers.

8 FEES AND PENALTIES

8.1 The Licensee shall pay to the Authority any Government Authorization Fees relating to the Assigned Frequencies in such amounts and at such times as may be prescribed pursuant to Section 40(1) of the ECA, Section 52 of the RAA, and the Government Fees Act 1965.

8.2 The Licensee shall pay to the Authority any Regulatory Authority Fees relating to the Assigned Frequencies in such amounts and at such times as may be prescribed pursuant to Section 40(3) of the ECA and Section 44 of the RAA.

8.3 The Licensee shall pay all applicable fees for Radio Stations and Radio Apparatus using the Assigned Frequencies.

8.4 The Licensee shall continue to pay, or collect and remit, to the Minister any licence fees that it was responsible for paying, or collecting and remitting, for the use of Radiocommunication equipment as at the date of commencement of Part 12 of the ECA in accordance with the Government Fees Regulations 1976 until a new schedule of fees is established.

8.5 The Licensee shall pay to the Authority any penalties and interest that may be imposed on the Licensee by the Authority for failure to make any payment due under this Licence and for any other contraventions of this Licence or the Applicable Regulatory Framework.

9 COMPLIANCE

Failure to comply with the terms of this Licence shall constitute a violation of the conditions of this Licence and the Associated ICOL, and violations shall be dealt with in accordance with the procedures set forth in the RAA and ECA.

10 ENFORCEMENT AND REVOCATION

The Authority may initiate enforcement proceedings pursuant to Section 93 of the RAA if there is reason to believe that the Licensee has contravened the conditions of this Licence or the Applicable Regulatory Framework, including failure to pay any fees prescribed for use of the Assigned Frequencies in full on a timely basis.

11 ASSIGNMENT

The Licensee shall not transfer, assign, Sub-License or lease, in whole or in part, this Licence or the spectrum usage rights granted herein to any third party, including any Affiliate, without the prior written authorization of the Authority acting with the written consent of the Minister. For purposes of this condition, "assignment" shall be deemed to include a change of Control of the Licensee.

12 RECORD-KEEPING OBLIGATIONS

The Licensee shall maintain the following records up-to date and promptly provide the Authority with copies upon request:

- (a) the equipment specifications of all Radio Stations and other Radio Apparatus operating under this Licence;
- (b) the coverage area of the Licensee's Electronic Communications Network and of each Radio Station;
- (c) the effective radiated power of any Radio Station and its location and height;
- (d) the measures taken to ensure that each Radio Station is not a source of harmful radiation to the public, and the Licensee's employees and contractors;
- (e) any information necessary for the Authority to develop and keep updated the Bermuda Frequency Allocation Table and Bermuda Frequency Assignment Register;
- (f) the emission designation of each Radio Station, as prescribed by the Applicable Regulatory Framework; and
- (g) the types of services provided to the Licensee's End-Users and Subscribers using the Assigned Frequencies.

13 NOTICES

The notice provisions of the Associated ICOL shall apply to this Licence.

SCHEDULE A

ASSIGNMENT OF RADIO FREQUENCY SPECTRUM

The frequency bands listed in the Schedule below have been assigned for use by the Licensee in the provision of Other Mobile Radio Services.

Frequency (MHz) ¹	Block Size (MHz)	Frequency (MHz) ²	Block Size (MHz)	Base/Repeater Station Location	Base/Repeater Station GPS
Tx		Rx			
454.0750	0.0250			Prospect (Site 1)	32°18'01.65"N -64°45'55.64"W
169.7250	0.0250			Prospect (Site 1)	32°18'01.65"N -64°45'55.64"W
167.0000	0.0250	167.0000	0.0250		
171.8000	0.0250	171.8000	0.0250		
451.7500	0.0250	451.7500	0.0250		
451.9250	0.0250	451.9250	0.0250		
452.5250	0.0250	452.5250	0.0250		
458.0250	0.0250	458.0250	0.0250		
860.1125		815.1125		Prospect (Site 1)	32°18'01.65"N -64°45'55.64"W
861.1125		816.1125			
862.1125		817.1125			
863.1125		818.1125			

¹ The Licensee has been authorised to provide the Licensed Services between 851 MHz and 869 MHz, and between 806 MHz and 824 MHz. The channels set forth below are in use as at the date of this Spectrum Licence.

² *Ibid*

864.1125		819.1125			
865.1125		820.1125			
865.2375		820.2375			
861.4875		816.4875			
862.4875		817.4875			
863.4875		818.4875			
864.4875		819.4875			
865.4875		820.4875			
861.7375		816.7375			
862.7375		817.7375			
863.7375		818.7375			
864.7375		819.7375			
865.7375		820.7375			
860.9125		815.9125			
861.9125		816.9125			
862.9125		817.9125			
863.9125		818.9125			
864.9125		819.9125			
865.9125		820.9125			
861.9875		816.9875			
862.9875		817.9875			
863.9875		818.9875			
864.9875		819.9875			
				Prospect (Site 1)	32°18'01.65"N -64°45'55.64"W

865.9875		820.9875					
866.1125		821.1125					
867.1125		822.1125					
860.2125		815.2125		Ft. George	32°22'49.28"N 64°40'57.87"W		
861.2125		816.2125					
862.2125		817.2125					
863.2125		818.2125					
864.2125		819.2125					
865.2125		820.2125					
860.6375		815.6375					
861.6375		816.6375					
862.6375		817.6375					
863.6375		818.6375					
864.6375		819.6375					
865.6375		820.6375					
866.2125		821.2125					
867.2125		822.2125					
860.3125		815.3125				Warwick Camp	32°15'22.80"N -64°49'00.07"W
861.3125		816.3125					
862.3125		817.3125					
863.3125		818.3125					
864.3125		819.3125					
865.3125		820.3125					

861.8625		816.8625			
862.8625		817.8625			
863.8625		818.8625			
864.8625		819.8625			
865.8625		820.8625			
866.3125		821.3125			
867.3125		822.3125			
861.0125		816.0125			
862.0125		817.0125			
863.0125		818.0125			
864.0125		819.0125			
865.0125		820.0125			
860.4125		815.4125			
861.4125		816.4125		Ft. Scaur	32°17'09.75"N -64°52'23.07"W
862.4125		817.4125			
863.4125		818.4125			
864.4125		819.4125			
865.4125		820.4125			
866.4125		821.4125			
867.4125		822.4125			
858.6375		813.6375		Repeater	
861.2375		816.2375		BELCO Smoke Stack	32°17'54.75"N -64°47'26.31"W

856.6375	0.025	811.6375	0.025	Mobile Repeater	Various
860.5125		815.5125		Quarry(Site 5)	32°20'23.60"N -64°42'19.10"W
861.5125		816.5125		Quarry(Site 5)	32°20'23.60"N -64°42'19.10"W
862.5125		817.5125		Quarry(Site 5)	32°20'23.60"N -64°42'19.10"W
863.5125		818.5125		Quarry(Site 5)	32°20'23.60"N -64°42'19.10"W
864.5125		819.5125		Quarry(Site 5)	32°20'23.60"N -64°42'19.10"W
865.5125		820.5125		Quarry(Site 5)	32°20'23.60"N -64°42'19.10"W
866.5125		821.5125		Quarry(Site 5)	32°20'23.60"N -64°42'19.10"W
867.5125		822.5125		Quarry(Site 5)	32°20'23.60"N -64°42'19.10"W