

October 1, 2014

Mr. Alan Bersin
Assistant Secretary
Office of Policy
U.S. Department of Homeland Security
245 Murray Lane, SW
Mail Stop: 0445
Washington, D.C. 20528

Dear Mr. Bersin:

This Letter of Assurances (“LOA”) outlines the commitments made by Emerald Networks Holding Limited (“Emerald”) to the U.S. Department of Homeland Security (“DHS”), in order to address national security, law enforcement, and public safety concerns raised with regard to Emerald’s application to the Federal Communications Commission (“FCC”) requesting authority to land and operate a fiber optic submarine cable system linking the United States, Iceland and Ireland.¹ The Emerald Express Cable System is intended be a private, non-common carrier fiber optic cable directly linking the United States and Ireland.

Upon grant of the license, Emerald undertakes to comply with the following commitments:

1. Principal Equipment List

Emerald agrees that within sixty (60) days of the filing of this LOA with the FCC, and thereafter within thirty (30) days upon DHS request, Emerald shall provide an updated list of Principal Equipment. For purposes of this Agreement, “Principal Equipment” means the primary components of the Domestic Communications Infrastructure (DCI) and the Emerald Express Cable System, including, but not limited to, servers, routers, switches, signal modulators and amplifiers, repeaters, submarine line terminal equipment (SLTE), system supervisory equipment (SSE), power feed equipment (PFE), tilt and shape equalizer units (TEQ/SEQ), optical distribution frames (ODF), and synchronous optical network (SONET), synchronous digital hierarchy (SDH), wave division multiplexing (WDM), dense wave division multiplexing (DWDM), coarse wave division multiplexing (CWDM) or optical carrier network (OCN) equipment, as applicable, and any non-embedded software necessary for the proper monitoring, administration and provisioning of the Emerald Express Cable System. This list should include available information on each item’s manufacturer and the model and/or version number of any hardware or software. In addition, the list should identify vendors or contractors for the Principal Equipment, including those who have physical and remote access to the Principal Equipment and those performing functions that would otherwise be performed by Emerald’s personnel to install, operate, manage, or maintain the Principal Equipment.

¹ Emerald Network Holdings Limited, Application for a License to Land and Operate a Fiber Optic Submarine Cable System Linking the United States, Iceland and Ireland, FCC SCL-LIC-20140206-00002.

For purposes of this LOA, DCI means: (a) transmission, switching, bridging, and routing equipment (including software and upgrades) used by or on behalf of Emerald to provide, process, direct, control, supervise, or manage information carried on the Emerald Express Cable System; (b) facilities and equipment used by or on behalf of Emerald that are physically located in the United States; or (c) facilities used by or on behalf of Emerald to control, provision, and activate the equipment described in (a) and (b) above. DCI does not include equipment or facilities used by service providers other than Emerald that are: (a) interconnecting communications providers or providers of transit services; or (b) providers of services or content that are: (i) accessible using the communications services of Emerald and (ii) available in substantially similar form and on commercially reasonable terms through communications services of companies other than Emerald. The phrase "on behalf of" as used in this definition does not include entities with which Emerald has contracted for peering, interconnection, transit, roaming, long distance, or other similar arrangements.

Where a new vendor or contractor for Principal Equipment does not appear on any list of Principal Equipment previously disclosed by Emerald pursuant to this LOA, Emerald shall provide at least thirty (30) days' advance written notice to DHS prior to the installation of Principal Equipment made by the new vendor or the initiation of work by the new contractor. Emerald need not comply with the thirty (30) day advance notice requirement for any action that is undertaken pursuant to a bona fide emergency and is necessary to ensure the continued operability of the network; however, in such circumstances, Emerald shall provide advance notice of a new vendor or contractor for Principal Equipment if practicable, and if impracticable, within five (5) business days after the installation of Principal Equipment made by a new vendor or the initiation of work by a new contractor, as applicable.

2. Cable System Access

Emerald agrees to take practicable measures to prevent unauthorized access to, and protect the physical and logical security of the Emerald Express Cable System and any information being carried on the Emerald Express Cable System. Furthermore, Emerald agrees to report to DHS if it learns of information that reasonably indicates unauthorized third-party access, disruption, or corruption to the Emerald Express Cable System or any information being carried on the Emerald Express Cable System. Any such reports should be provided in writing to DHS within 10 business days of discovery of the relevant information. Emerald further agrees: (a) to cooperate with DHS's recommendations with respect to the remediation of such events, and to the extent such recommendations are not adopted by Emerald, to provide an explanation as to why such measures are not adopted; and (b) to report Emerald's actions in response to any recommendation from DHS concerning remediation within 10 business days of receipt of such recommendation.

3. Information Available Upon Request

Upon request by the DHS, Emerald agrees to make available within 15 days updated information relating to the development, operation and management of the Emerald Express Cable System, including, but not limited to, the following:

- a) Network Management Information, including network topology descriptions or maps; network and telecommunications architecture descriptions and associated descriptions of interconnection points and controlled gateways to the DCI; network operational plans, processes and procedures; locations and functions of any network operations centers, data centers, and main distribution facilities; and descriptions of linkages to the Emerald Express Cable System for service offload, disaster recovery, or administrative functions;
- b) Physical and logical security policies, procedures and hardware or software products or appliances maintained to protect the Emerald Express Cable System;
- c) Architecture Interconnect Diagrams (AID), Architecture Flow (control) Diagrams (ACD), and System Context Diagrams (SCD) that show major system/subsystem components, data flow/control, and actors outside the system that could interact with the Emerald Express Cable System; and
- d) Any policies or procedures adopted to implement this LOA.

4. Point of Contact

Emerald hereby designates Gregory Varisco, 319 Empress Lane, League City, Texas 77573, Tel: 832 443 4980, a resident U.S. citizen, as Point of Contact (POC) for purposes of this LOA. The POC shall be available 24 hours per day, 7 days per week to address any national security, law enforcement or public safety concerns that may be raised by DHS with respect to the Emerald Express Cable System. The POC shall be responsible for receiving and promptly effectuating requests for information pursuant to this LOA. Emerald will notify the USG Parties of any change to the POC within 10 business days of such change. Emerald shall cooperate with a request by DHS that a background check be completed for a designated Point of Contact.

5. Change in Services

Emerald agrees that it will notify DHS in writing at least 30 calendar days prior to implementing any significant changes to its provision of communications services in the U.S., including but not limited to the provision of services directly to end-user (i.e., non-carrier) customers, either residential, business, or enterprise.

6. Annual Report

On or before each anniversary of the effective date of this LOA, Emerald shall submit to DHS a report including the following information:

- a) An updated Principal Equipment List, as defined herein, including but not limited to any material changes or upgrades since the Principal Equipment List was most recently provided to DHS;

- b) The names and contact information of any POC, as defined herein;
- c) Physical and logical security policies and procedures used for protecting system and subsystem components of the Emerald Express Cable System, or material updates to policies and procedures since most recently disclosed to DHS; and
- d) Architecture Interconnect Diagrams (AID), Architecture Flow (control) Diagrams (ACD), and System Context Diagrams (SCD) that show major system/subsystem components, data flow/control, and outside system components (people or machine) that could interact with the Emerald Express Cable System, or material updates to such documents since most recently disclosed to DHS.

7. Notices

Notices under this LOA to DHS will be directed to IP-FCC@hq.dhs.gov.

8. Good Faith Negotiation; Remedies

Emerald agrees to negotiate in good faith to resolve any national security, law enforcement or public safety concerns DHS may raise with respect to the Principal Equipment List, new vendors or contractors for Principal Equipment, or any other matters set forth in this LOA.

Emerald shall permit DHS and such other U.S. Government agency representatives as DHS may designate, to inspect books and records, equipment, servers, and facilities and premises owned or leased by Emerald. Ordinarily, DHS will provide Emerald with fourteen (14) days advance notice, but in extraordinary circumstances Emerald shall afford DHS such access during normal business hours with or without advance notice.

Emerald shall permit DHS and such other U.S. Government agency representative as DHS may designate, to conduct confidential interviews of employees or contractors of Emerald concerning compliance with this LOA.


Emerald agrees that in the event the commitments set forth in this letter are breached, in addition to any other remedy available at law or equity, DHS may request that the FCC modify, condition, revoke, cancel, terminate, or render null and void any relevant license, permit, or other authorization granted by the FCC to Emerald or any successors-in-interest. Nothing herein shall be construed to be a waiver by Emerald of, or limitation on, its right to oppose or comment on any such request.

Nothing in this letter is intended to excuse Emerald from its obligations to comply with any and all applicable legal requirements and obligations, including any and all applicable statutes, regulations, requirements, or orders.

This LOA shall inure to the benefit of, and shall be binding upon, Emerald and its respective successors, assigns, subsidiaries, and affiliates.

Emerald understands that, promptly upon execution of this letter by an authorized representative or attorney for Emerald, DHS shall notify the FCC that it has no objection to the FCC's grant of Emerald's application.

For and on behalf of Emerald Networks Holding Limited

A handwritten signature in black ink, appearing to read "Gregory Varisco", written over a horizontal line.

Gregory Varisco, President
319 Empress Lane
League City, Texas 77573
Tel: 832 443 4980