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31 July 2018

Assistant Secretary for Border, Immigration and Trade
U.S. Department of Homeland Security
Office of Policy
Foreign Investment Risk Management
3801 Nebraska Avenue NW
Washington, D.C. 20528
IP-FCC@hq.dhs.gov

Ladies and Gentlemen:

This Letter of Assurances (“LOA”) modifies and updates the commitments originally made by PPC 1 Limited and PPC 1 (US) Inc. (collectively, the “PPC 1 Licensees”) to the U.S. Department of Homeland Security (“DHS”) in a National Security Agreement (“Agreement”) dated September 4, 2008 to address national security, law enforcement, and public safety concerns raised with regard to the PPC 1 Licensees’ Federal Communications Commission (“FCC”) license to land and operate a non-common carrier fiber optic submarine cable system connecting Sydney, Australia with Piti, Guam and Madang, Papua New Guinea (“PPC 1 Cable System”).¹ The commitments contained in the Agreement were subsequently reaffirmed by TPG Telecom Limited (“TPG Telecom”) on January 20, 2010, in connection with the transfer of control of the PPC 1 Licensees from PIPE Networks Limited to TPG Telecom.²

TPG Telecom understands that the Agreement is being terminated by DHS and the PPC 1 Licensees in light of the modified and updated commitments provided through this LOA with respect to the PPC 1 Cable System. TPG Telecom has agreed to provide this LOA to DHS, and TPG Telecom understands that DHS will petition the FCC to condition the cable landing license for the PPC 1 submarine cable system on compliance with this LOA.

For purposes of this LOA:

- A. “Domestic Communications” means: (a) Wire Communications or Electronic Communications (whether stored or not) from one U.S. location to another U.S. location and (b) the U.S. portion of a Wire Communication or Electronic Communication (whether stored or not) that originates or terminates in the United States.
- B. “Domestic Communications Infrastructure” or “DCI” means: (a) any portion of the PPC 1 Cable System that physically is located in the United States, up to the submarine line terminating equipment, including (if any) transmission, switching, bridging, and routing equipment, and any associated software (with the exception of commercial-off-the-shelf (“COTS”) software used for common business functions, *e.g.*, Microsoft Office) used by

¹ SCL-LIC-20080213-00001, Joint Application of PPC 1, for a License to Land and Operate a Private Fiber-Optic Submarine Cable System Connecting the Australia, Guam and New Guinea.

² SCL-T/C-20091230-00041, Application for Consent to Transfer Control of a Private Fiber-Optic Cable System Connecting Australia and Guam, the PPC 1 System.

or on behalf of TPG Telecom to provide, process, direct, control, supervise, or manage Domestic Communications; and (b) Network Operations Center (“NOC”) facilities, as defined in Section D below.

- C. “Electronic Communication” has the meaning given it in 18 U.S.C. § 2510(12).
- D. “Network Operations Center” or “NOC” means the locations and facilities designated as such by TPG Telecom for purposes of performing network management, monitoring, maintenance, or other operational functions for the PPC 1 Cable System.
- E. “Principal Equipment” means the primary electronic components of the PPC 1 Cable System, which includes the Domestic Communications Infrastructure and Wet Infrastructure. Principal Equipment includes: network element servers; routers; switches; repeaters; submarine line terminal equipment (“SLTE”); system supervisory equipment (“SSE”); signal modulators and amplifiers; power feed equipment (“PFE”); tilt and shape equalizer units (“TEQ/SEQ”); optical distribution frames (“ODF”); branching units (“BU”); 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 (“OCx”) equipment, as applicable; and any non-embedded software necessary for the proper monitoring, administration, and provisioning of the PPC 1 Cable System (with the exception of COTS software used for common business functions, *e.g.*, Microsoft Office).
- F. “Screened Personnel” has the meaning set forth in Paragraph 9 below.
- G. “Wet Infrastructure” means hardware components installed and residing on the undersea portion of the PPC 1 Cable System, including fiber optic cables, repeaters, branching units, and routers (if any). Wet Infrastructure includes all the components used in order to define the topology of the undersea portion of the PPC 1 Cable System.
- H. “Wire Communication” has the meaning given it in 18 U.S.C. § 2510(1).

TPG Telecom undertakes to comply with the following commitments:

1. Security Points of Contact

TPG Telecom shall maintain a Security Point of Contact (“POC”) for purposes of this LOA. The POC shall be a U.S. citizen and shall reside in the United States. The POC shall be subject to DHS’ review and non-objection, and he/she may be subject to a background check at the sole discretion of DHS. The POC shall be available twenty-four (24) hours per day, seven (7) days per week, regarding any national security, law enforcement, or public safety concerns that DHS may raise with respect to the PPC 1 Cable System. The POC shall be responsible for receiving and promptly effectuating any lawful inquiries or requests for information and for otherwise ensuring compliance with obligations set forth in this LOA. TPG Telecom shall notify DHS of any proposed change to the POC at least ten (10) business days in advance of such change. Any subsequently proposed POC shall be subject to DHS’ review and non-objection and may be subject to a background check at the sole discretion of DHS.

2. Cable System Information

Within sixty (60) business days of the execution of this LOA, and within fifteen (15) business days upon request by DHS, TPG Telecom agrees to make available the following PPC 1 Cable System Information:

- (a) Network management information, including: (1) a network map that includes physical and logical topology; (2) network and telecommunications architecture descriptions and associated descriptions of interconnection points and controlled gateways to the DCI and Wet Infrastructure; (3) network operational plans, processes, and procedures; (4) locations and functions of any NOCs, data centers, and main distribution facilities; and (5) descriptions of interfaces and connections to the PPC 1 Cable System for service offload, disaster recovery, or administrative functions;
- (b) Complete and current list of all contracts held by TPG Telecom or its designee(s) for the maintenance and security of the PPC 1 Cable System; and
- (c) A restoration plan for the Principal Equipment and the Wet Infrastructure for the PPC 1 Cable System, as well as interconnection mechanisms with other cable landings for restoration in the case of outages due to cable disruptions.

3. Operational Requirements

With respect to the operation of the PPC 1 Cable System, TPG Telecom agrees as follows:

- (a) TPG Telecom shall have the ability to promptly and effectively interrupt, in whole or in part, traffic to and from the United States on the PPC 1 Cable System by disabling or disconnecting circuits at the U.S. cable landing station or at other locations within the United States;
- (b) TPG Telecom shall configure all necessary systems so the NOC will be able to initiate a suspension or interruption of the optical carrier signal or all of the PPC 1 Cable System within the DCI.

If TPG Telecom is required to interrupt traffic to or from the United States as a result of lawful U.S. process, TPG Telecom shall be permitted to disclose publicly that it was required to interrupt service in response to lawful U.S. process, without disclosing any of the content of such request.

4. Principal Equipment List

Within sixty (60) business days of the execution of this LOA, TPG Telecom shall provide DHS with a list to include:

- (a) A complete and current list of all Principal Equipment, including: (1) a description of each item and the functions supported, (2) each item's manufacturer, and (3) the model and/or version number of any hardware or software; and
- (b) Any vendors, contractors, or subcontractors involved in providing, installing, operating, managing, or maintaining the Principal Equipment.

DHS shall approve or disapprove the Principal Equipment List within thirty (30) business days of receipt. Failure by DHS to respond within the required timeframe shall be deemed to constitute a non-objection to use of the equipment included on the Principal Equipment List and the services of the vendors, contractors, or subcontractors identified on the Principal Equipment List.

5. Material Modifications to Existing Principal Equipment

TPG Telecom shall provide DHS at least fifteen (15) business days' advance notice prior to performing any maintenance, repair, or replacement that would result in any material modification to existing Principal Equipment for the PPC 1 Cable System. TPG Telecom need not comply with the advance notice requirement for any maintenance, repair, or replacement that is undertaken in response to an unforeseen or uncontrollable event and that is necessary to ensure the continued operability of the PPC 1 Cable System; however, in such circumstances, TPG Telecom shall provide advance notice to DHS of the material modification, if practicable, and, if impracticable, TPG Telecom shall provide notice within ten (10) business days after the material modification of the Principal Equipment. TPG Telecom may continue to utilize any Principal Equipment repaired or replaced pursuant to the process outlined in this paragraph, provided that DHS do not object within thirty (30) business days of notification.

6. Change in Vendors, Contracts, or Subcontracts for Principal Equipment

TPG Telecom shall provide at least thirty (30) business days' advance notice prior to making any modifications to the list of vendors, contractors, or subcontractors involved in providing, installing, operating, managing, or maintaining the Principal Equipment. In addition, TPG Telecom shall provide at least thirty (30) business days' advance notice prior to changing the service offerings or support from a previously-listed vendor, contractor, subcontractor (*i.e.*, where a previously-listed provider will be offering support in a previously unidentified way). DHS shall approve or disapprove any modification or change proposed pursuant to this paragraph within thirty (30) business days of receipt. Failure by DHS to respond within the required timeframe shall be deemed to constitute a non-objection to proposed modification or change.

7. Measures to Prevent Improper Use and Unauthorized Access

TPG Telecom agrees to take all reasonable measures to prevent unauthorized access to the PPC-1 Cable System and to prevent any unlawful use or disclosure of information carried on the same. Such measures shall include a cyber-security plan, to include items

such as configuration management, security audits, and system interconnection documentation, as well as contractual safeguards and screening procedures for personnel with logical access to the DCI. In addition, TPG Telecom will take appropriate measures to protect and promote resiliency of the PPC 1 Cable System, including measures to ensure that security patches for systems and applications are kept up to date. In addition, TPG Telecom will maintain or exceed security standards and best practices utilized within the U.S. telecommunications industry for maintenance of password systems and firewalls, non-destructive access logs, and periodic internal network security and switch audits. TPG Telecom will submit a policy regarding logical security measures to DHS within sixty (60) business days of the date of execution of this LOA. TPG Telecom agrees to meet and confer with DHS and to resolve to the satisfaction of DHS any concerns DHS may raise about such policy.

8. Physical Security Measures

TPG Telecom agrees to take all reasonable measures to physically secure the PPC 1 Cable System, including the DCI. TPG Telecom will screen appropriate personnel, and TPG Telecom will require that all visitors who physically access the DCI are escorted at all times by Screened Personnel, as defined herein. TPG Telecom will submit a policy regarding physical security measures to DHS within sixty (60) business days of the date of execution of this LOA. TPG Telecom agrees to meet and confer with DHS and to resolve to the satisfaction of DHS any concerns DHS may raise about such policy.

9. Screening of Personnel

TPG Telecom shall implement, either directly or through a vendor or service provider, a process to screen any existing or newly hired TPG Telecom personnel (or any personnel performing under an agreement with TPG Telecom) in at least the following circumstances:

- (a) Any person whose position could involve logical access to the DCI; and
- (b) All personnel charged with securing the DCI.

TPG Telecom's personnel screening process shall be reflected in a written policy and will include background investigations, public criminal records checks, or other analogous means to ascertain a person's trustworthiness. Upon satisfactory completion of the requirements set forth in the screening policy, such persons shall be considered "Screened Personnel."

TPG Telecom will submit the screening policy to DHS within sixty (60) business days of the date of execution of this LOA. TPG Telecom agrees to meet and confer with DHS and to resolve to the satisfaction of DHS any concerns DHS may raise about such policy. In addition, TPG Telecom will cooperate with any reasonable request by DHS to provide additional identifying information regarding Screened Personnel.

10. Reporting Incidents and Breaches

TPG Telecom agrees to report to DHS promptly if it learns of information that reasonably indicates:

- (a) Unauthorized third-party access to, or disruption or corruption of, the PPC 1 Cable System or any information being carried on the PPC 1 Cable System;
- (b) Any other unauthorized access to or disclosure of Domestic Communications in violation of federal, state, or local law; or
- (c) Any material breach of the commitments made in this LOA.

Any reports required by this provision should be made in writing to DHS within ten (10) business days of discovery of the relevant conduct. TPG Telecom further agrees to cooperate with DHS' recommendations with respect to the remediation of such events and, to the extent it disagrees with such recommendations, to provide for DHS consideration an explanation as to why such measures should not be adopted. TPG Telecom will provide this explanation, as well as a description of any other actions taken in response to a remediation recommendation from DHS, within ten (10) business days of receipt of such recommendation.

11. Instruction of Obligations

TPG Telecom shall instruct appropriate officers, employees, contractors, and agents as to TPG Telecom's obligations under this LOA, including the individuals' duty to report any violation, and shall issue periodic reminders of such obligations. TPG Telecom shall issue these instructions in writing within sixty (60) business days of the date of execution of this LOA. TPG Telecom will submit a copy to DHS at the same time.

12. Change in Services or Cable Operations

TPG Telecom agrees that it will notify DHS in writing at least thirty (30) business days prior to implementing any changes to the communications services or operations of the PPC 1 Cable System such that the material representations made in TPG Telecom's FCC application and associated materials are no longer fully accurate, true, and complete.

13. Change in Control

If TPG Telecom learns of any information that reasonably indicates that any single foreign entity or individual, other than those already identified, has or likely will obtain an ownership interest, whether direct or indirect, in TPG Telecom or the PPC 1 Cable System above ten (10) percent, or if any foreign entity or individual, singly or in combination with other foreign entities or individuals, has or likely otherwise will gain either: (i) control, as determined in accordance with 47 C.F.R. § 63.09(b); or (ii) *de facto* or *de jure* control of TPG Telecom, TPG Telecom will provide notice in writing to DHS within ten (10) business days. Notice under this Section shall, at a minimum:

- (a) Identify the entity or individual(s) acquiring control (specifying the name, addresses, and telephone numbers of the entity or individual(s));
- (b) Identify the beneficial owners of any such increased or prospective increased ownership interest in TPG Telecom or the PPC 1 Cable System by the entity or individual(s) (specifying the name, addresses, and telephone numbers of each beneficial owner); and

- (c) Quantify the amount of ownership interest that the entity or individual(s) has or likely will obtain in TPG Telecom or the PPC 1 Cable System and, if applicable, the basis for their prospective control of TPG Telecom or the PPC 1 Cable System.

14. Annual Report

On or before the last day of January of each year, TPG Telecom will submit to DHS a report assessing TPG Telecom's compliance with the terms of this LOA for the preceding year. The report shall include:

- (a) The names and contact information of the then-current POCs;
- (b) Cable System Information, as described in Paragraph 2 above, noting any changes during the reporting period;
- (c) An updated Principal Equipment list containing all information described in Paragraph 4 above, identifying any material modifications during the reporting period;
- (d) A copy of the then-current policies adopted in accordance with this LOA, including policies for logical security (Paragraph 7), physical security (Paragraph 8), personnel screening (Paragraph 9), incident reporting (Paragraph 10), and employee training (Paragraph 11), and a summary of any changes during the reporting period and the reasons therefore;
- (e) A summary of any events that occurred during the reporting period that will or reasonably could impact the effectiveness of or compliance with this LOA; and
- (f) A summary of any known acts of noncompliance with the terms of this LOA that occurred during the reporting period, whether inadvertent or intentional, with a discussion of what steps have been or will be taken to prevent such acts from occurring in the future.

15. DHS Consultation and Visitation

TPG Telecom agrees to meet and confer with DHS and to resolve to the satisfaction of DHS any concerns DHS may raise about materials submitted pursuant to this LOA.

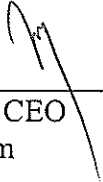
TPG Telecom agrees to negotiate in good faith to resolve to the satisfaction of DHS any national security, law enforcement, or public safety concerns DHS may raise with respect to any matters set forth in this LOA.

TPG Telecom agrees that, upon reasonable advance notice, DHS may visit any part of the DCI to conduct on-site reviews concerning the implementation of the terms of this LOA and TPG Telecom's compliance with its terms. Subject to applicable law, during such visits, TPG Telecom shall cooperate with the requests of DHS to make available information, facilities, and personnel to verify compliance with the terms of this LOA.

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

TPG Telecom 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 TPG Telecom or any successors-in-interest.

For and on behalf of TPG Telecom



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