

8 May 2017

NetLink Management Pte Ltd
(as Trustee-Manager of NetLink Trust)
750E Chai Chee Road
#07-03/05/06
Viva Business Park
Singapore 469005

Attention: Mr Tong Yew Heng
Chief Executive Officer

Dear Mr Ng,

**DIRECTION OF THE INFO-COMMUNICATIONS MEDIA DEVELOPMENT
AUTHORITY MADE PURSUANT TO SECTION 27 OF THE
TELECOMMUNICATIONS ACT (CHAPTER 323) IN RESPECT OF THE
REVIEW OF THE FOLLOWING FROM NETLINK MANAGEMENT PTE LTD
(AS TRUSTEE-MANAGER OF NETLINK TRUST):**

- (A) INTERCONNECTION OFFER FOR THE PROVISION OF SERVICES
OVER THE NATIONWIDE BROADBAND NETWORK**
**(B) ONE-TIME AND MONTHLY RECURRENT PRICES FOR THE
INTERCONNECTION OFFER UNDER THE NETCO INTERCONNECTION
CODE 2017**

1. The Info-communications Media Development Authority (“**IMDA**”), pursuant to Section 27(1) of the Telecommunications Act (Chapter 323) (the “**Act**”) and Condition 32.1 of the Licence to Provide Facilities-Based Operations granted on 22 September 2011, amended on 1 October 2014 and as further amended and transferred to NetLink Management Pte Ltd (as Trustee-Manager of NetLink Trust) (“**NetLink Trust**”) on 13 April 2017, hereby issues this direction to NetLink Trust.

(A) Review of NetLink Trust’s Interconnection Offer for the Provision of Services over the Nationwide Broadband Network

2. Reference is made to the following:

- (a) The NetCo Interconnection Code 2017 (the “**NetCo Code**”);
- (b) IMDA’s letter dated 24 October 2016 titled “Consultation on NetLink Trust’s Interconnection Offer – IMDA’s Decision” (“**IMDA’s Decision**”);
- (c) IMDA’s direction to NetLink Trust dated 14 November 2016 titled “Direction Of The Info-Communications Media Development Authority Made Pursuant To Section 27 Of The

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Telecommunications Act (Chapter 323) In Respect Of The Review Of CityNet Infrastructure Management Pte Ltd's (As Trustee-Manager Of The Netlink Trust) Interconnection Offer For The Provision Of Services Over The Nationwide Broadband Network";

- (d) NetLink Trust's Interconnection Offer ("**ICO**") incorporating various proposed changes, as submitted by NetLink Trust on 19 December 2016 ("**Draft Revised ICO**"); and
 - (e) The public consultation titled "Public Consultation on NetLink Trust's Interconnection Offer", issued by IMDA on 26 January 2017 ("**Public Consultation**").
3. Following the close of the Public Consultation on 9 March 2017, IMDA has reviewed the Draft Revised ICO, as well as the views and comments submitted in response to the Public Consultation. IMDA has assessed that certain parts of the Draft Revised ICO require further modifications to ensure that they are appropriate as well as relevant and responsive to the needs of the industry.
4. IMDA's considerations and reasons for the Direction for the modifications to the ICO for the provision of services over the NBN are also set out in the accompanying **Explanatory Memorandum** and **Appendices** to this Direction.
- (B) Review of NetLink Trust's One-time and Monthly Recurrent Prices for the ICO under the NetCo Code**
5. Pursuant to Section 12.3 of the NetCo Code, IMDA has concurrently reviewed the prices of the Mandated Services offered under NetLink Trust's ICO. In reviewing the prices, IMDA continues to up-hold the key objective of the Nationwide Broadband Network ("**NBN**"), which is to encourage more services-based competition through facilitating the setting up of an open-access structurally-separated Network Company ("**NetCo**") with affordable regulated wholesale prices.
6. IMDA has thus adopted the Regulatory Asset Base ("**RAB**") pricing methodology, taking into consideration that the network and technology for the underlying passive civil infrastructure in NetLink Trust's network, e.g., ducts and manholes, are not expected to change significantly over the near term. IMDA has also independently assessed the historical and forecasted costs for reasonableness and cost efficiency, taking into consideration the restructuring of operations and internalisation of contractor functions within NetLink Trust arising from the consolidation of OpenNet Pte Ltd and CityNet Infrastructure Management Pte Ltd in 2013.

7. IMDA notes that an RAB-based pricing methodology has been, or is in the midst of being adopted by telecoms regulators in other countries for telecom networks, particularly for establishing asset value that involves large passive civil infrastructure to support new fibre network rollouts that are not expected to change rapidly over time. Some of the countries include Australia, New Zealand, United Kingdom and others in the European Union.
8. The determined prices for all Mandated Services (“**IMDA-Determined Prices**”), inclusive of the previously announced changes to certain one-time charges in IMDA’s Decision, are set out in **Appendix A** of this letter.

Directed Modifications

9. Accordingly, IMDA hereby directs NetLink Trust as follows:
 - (a) NetLink Trust shall submit to IMDA for review and approval, NetLink Trust’s further proposed modifications (“**NetLink Trust’s Further Proposed Modifications**”) to the following components of its ICO to give effect to IMDA’s required modifications as specified in the accompanying **Explanatory Memorandum** and the following **Appendices** to this direction (see attached) by **29 May 2017**:
 - (i) Appendix 1: Directed modifications to Schedule 1 Residential End-User Connection;
 - (ii) Appendix 2: Directed modifications to Schedule 2 Non-Residential End-User Connection;
 - (iii) Appendix 3: Directed modifications to Schedule 3 NBAP Connection;
 - (iv) Appendix 4: Directed modifications to Schedule 4 CO to CO Connection;
 - (v) Appendix 5: Directed modifications to Schedule 5 CO to Building MDF Room Connection;
 - (vi) Appendix 6: Directed modifications to Schedule 6 Building MDF Room to FTTB Node Connection;
 - (vii) Appendix 7: Directed modifications to Schedule 7 FTTB Node to DP Connection;
 - (viii) Appendix 8: Directed modifications to Schedule 8 Building MDF Room to Residential Premise Connection;

- (ix) Appendix 9: Directed modifications to Schedule 9 Building MDF Room to Non-Residential Premise Connection;
- (x) Appendix 10: Directed modifications to Schedule 10 CO to NBAP DP Connection;
- (xi) Appendix 11: Directed modifications to Schedule 11 NBAP DP to NBAP TP Connection;
- (xii) Appendix 12: Directed modifications to Schedule 12C Co-location Space & Service in New Co-location Room; and
- (xiii) Appendix 13: Directed modifications to Schedule 15 Charges,

(together, the “**Directed Modifications**”).

(Unless the context requires otherwise, all capitalised terms used in the Explanatory Memorandum and Appendices to this direction shall have the meanings as in NetLink Trust’s ICO.)

- (b) As part of the ICO review process, IMDA has included a checklist to comprehensively capture IMDA’s Directed Modifications (“**Checklist**”) in Appendix B.
- (c) In NetLink Trust’s Further Proposed Modifications, NetLink Trust shall also propose, for IMDA’s review and approval, such editorial changes to NetLink Trust’s ICO that are necessary, including ensuring that all references used in the ICO and Schedules to the ICO are applicable, correct and relevant.
- (d) To the extent that any ancillary or consequential modification to any provision in NetLink Trust’s ICO is necessary in order to give effect to this direction and/or the Directed Modifications hereunder, NetLink Trust shall propose such modification for IMDA’s review and approval.

(the “**Direction**”).

10. IMDA reminds NetLink Trust that:

- (a) to the extent that any of NetLink Trust’s Further Proposed Modifications fails to give effect to IMDA’s Directed Modifications or, in IMDA’s view, is not acceptable, IMDA will direct NetLink Trust to adopt specific drafting language; and
- (b) IMDA may reject any of NetLink Trust’s Further Proposed Modifications that are not for the purpose of giving effect to IMDA’s Directed Modifications as set out in this Direction.

Timeline for Implementation of the ICO

11. Given that the Network Company plays a crucial role in the successful implementation of the NBN, IMDA considers that the revised ICO should be implemented in a timely manner in order to meet the needs of the industry. On the other hand, IMDA recognises that NetLink Trust and the Requesting Licensees (“**RLs**”) may need time to make changes to its systems as a consequence of the ICO changes.
12. In the premises, IMDA considers that it would be reasonable for the revised ICO to be implemented in the stages set out below. In specifying the stages, IMDA has prioritised the services in the revised ICO that are of greater urgency:
 - (a) Stage 1: One month of the date on which IMDA approves the revised ICO, NetLink Trust shall implement and give effect to the changes relating to the ICO process and the following ICO one-time charges with regard to fault management:
 - (i) Termination Point Relocation, Repair and Replacement, and Removal Charge under Schedule 1 and Schedule 8 of the ICO;
 - (ii) Trouble Report Generation under Schedule 3 and Schedule 10 of the ICO; and
 - (iii) Fault Identification Charge, Joint Investigation Charge, Cancellation Charge of Fault Reported and Onsite Charge under Schedules 1 to 11 of the ICO.
 - (b) Stage 2: Six months of the date on which IMDA approves the revised ICO, NetLink Trust shall implement and give effect to the remaining changes to the ICO process and the remaining one-time charges and monthly recurring charges.

NetLink Trust shall ensure that the ICO changes in both Stage 1 and Stage 2 are effected promptly on their respective implementation dates. In other words, NetLink Trust shall ensure that the necessary changes on its systems are tested and ready to go live before the ICO changes implementation dates. NetLink Trust is also expected make the changes available via its test/staging server(s), for Requesting Licensees and/or Retail Service Providers on the NBN to perform any necessary B2B testing ensure that the ICO changes can be effected on the NBN on their respective implementation dates.

13. IMDA considers it necessary to include both sets of ICO changes upon IMDA’s approval of the revised ICO so that the industry is apprised of

the various changes and their respective effective dates. Accordingly, IMDA directs NetLink Trust to submit:

- (a) one marked-up softcopy of its ICO incorporating NetLink Trust's Further Proposed Modifications to give effect to IMDA's Directed Modifications for Stage 1; and
- (b) one marked-up softcopy of its ICO incorporating NetLink Trust's Further Proposed Modifications to give effect to IMDA's Directed Modifications for both Stage 1 and Stage 2.

The marked-up versions shall clearly identify each of NetLink Trust's Further Proposed Modifications made by NetLink Trust to its Draft Revised ICO. The softcopy submission shall be in Microsoft Word format and emailed to ILO@imda.gov.sg.

- 14. NetLink Trust is reminded of its obligation to comply with this Direction under Section 27(5) of the Act.
- 15. Any clarification on this Direction shall be made in writing, addressed to the Director-General (Telecoms & Post), Asst. CE (Connectivity & Competition Development), attention Mr Ong Tong San, and emailed to ILO@imda.gov.sg. Please note that any query or clarification from NetLink Trust shall not affect NetLink Trust's obligation to comply fully with this Direction, including, in particular, the timelines to be complied with.

Yours sincerely,



Aileen Chia (Ms)
Director-General (Telecoms & Post),
Asst. CE (Connectivity & Competition Development)