LONG FORM CONSOLIDATION APPLICATION

NETLINK TRUST ACQUISITION OF 100% OF THE ISSUED AND PAID-UP CAPITAL IN OPENNET PTE LTD

List the names and headquarter addresses of the Applicant subject to the Consolidation (i.e., the Licensee, Designated Business Trust or Designated Trust in which the Voting Shares/Units/Equity Interests or Voting Power is being acquired or whose business is being acquired as a going concern). Indicate the names of the Applicants primary contacts in connection with this Consolidation Application, designations and contact information (mailing address, telephone number, fax number, email address etc.).

- 1.1 The name and headquarter addresses of the Applicant subject to the Consolidation:
- (i) OpenNet Pte. Ltd. ("OpenNet")

152 Beach Road, Gateway East #31-05/08

Singapore 189721

Tel: +65 6595 9188

Fax: +65 6294 1218

Contact: Mr Mark Blake

Chief Executive Officer

List each entity that constitutes an Affiliate of the Applicant identified in response to Question 1 based on the Applicant holding an attributable interest of 5% or more (Subsidiary). For each Affiliate, indicate the Affiliate's principal line of business and the Applicant's percentage Voting Shares/Units/Equity Interests or Voting Power.

2.1 **N/A** – OpenNet does not hold an attributable interest of 5% or more in any Affiliate (i.e. Subsidiary).

List each entity that constitutes an Affiliate of the Applicant identified in response to Question 1 based on the Affiliates holding an attributable interest of 5% or more in the Applicant (Parent). For each Affiliate, indicate the Affiliate's principal line of business and the entity's percentage Voting Shares/Units/Equity Interests or Voting Power in the Licensee, Designated Business Trust or Designated Trust. Also indicate any entity in which that Affiliate holds an attributable interest of 5% or more (Sibling). Indicate any situation in which any Affiliate has special or preferential rights in the Licensee, Designated Business Trust or Designated Trust.

3.1 The entities that constitute an Affiliate (i.e. Parent) of the Applicant identified in response to Question 1 holding an attributable interest of 5% or more:

Entity Name	Jurisdiction	Approximate % of Issued and Paid-up Capital	Nature of Business
Axia NGNetworks Asia Pte. Ltd.	Singapore	30	Holding Company
SingTel Interactive Pte. Ltd.	Singapore	30	Holding Company
SPH Net Pte. Ltd.	Singapore	25	Holding Company
SPT Net Pte. Ltd.	Singapore	15	Holding Company

List the name and address of the Applicant (whether or not a current Licensee, Designated Business Trust or Designated Trust) that seeks to obtain Voting Shares/Units/Equity Interests or Voting Power in the Licensee, Designated Business Trust or Designated Trust or acquire the business of the Licensee as a going concern. Indicate the name of the Applicant's primary contact in connection with this Consolidation Application and his or her designation and contact information (mailing address, telephone number, fax number, email address etc.).

4.1 The names and addresses of the Applicants that seek to obtain Voting Shares in OpenNet: (i) NetLink Trust (through its Trustee-Manager, CityNet) 111 Somerset Road #10-01 TripleOne Somerset Singapore 238164 Tel: +65 6594 9828 Fax: +65 6594 9811 Contact: Ms Jacqueline Ong Acting Chief Executive Officer CityNet Infrastructure Management Pte. Ltd. (as Trustee-Manager of the (ii) NetLink Trust) ("CityNet") 111 Somerset Road #10-01 TripleOne Somerset Singapore 238164 Tel: +65 6594 9828

Acting Chief Executive Officer

Fax: +65 6594 9811

Contact: Ms Jacqueline Ong

(iii) Singapore Telecommunications Limited (as unitholder of the NetLink Trust) ("SingTel")

31 Exeter Road Comcentre

Singapore 239732

Tel: +65 6838 3388

Fax: +65 6732 8482

Contact: Mr Sean Slattery

Vice President (Regulatory and Interconnect)

List each entity that constitutes an Affiliate of the Applicant identified in response to Question 4 based on the Applicant holding an attributable interest of 5% or more (Subsidiary). For each Affiliate, indicate the Affiliate's principal line of business and the Applicant's percentage Voting Shares/Units/Equity Interests or Voting Power.

5.1 The NetLink Trust (through its Trustee-Manager, CityNet) holds 100% of the issued and paid-up capital in United Maintenance Company Pte. Ltd. ("UMC"). UMC provides manpower services to CityNet in relation to the installation, operation and maintenance of the NetLink Trust network of ducts, manholes and Central Offices ("COs").

- 5.2 SingTel holds interests in a number of subsidiaries, the key subsidiaries in Singapore include:
 - (i) 100% owned SingTel Mobile Singapore Pte. Ltd. ("SingTel Mobile"), the mobile market leader in Singapore with over 3 million customers who enjoy excellent local and overseas roaming coverage. It also offers Long Term Evolution ("LTE") mobile broadband service and a suite of innovative services and solutions such as mobile content and applications under the IDEAS brand and cloud storage, video conferencing, music and e-books etc.
 - (ii) 100% owned SingNet Pte. Ltd. ("**SingNet**"), the leading Internet Service Provider ("**ISP**") in Singapore offering a full range of Internet services using ADSL technology and a wide range of high speed fibre services with downlink speeds of up to 300Mbps, uplink speeds of up to 100Mbps and international bandwidth of up to 25Mbps.
 - (iii) 100% owned NCS Pte. Ltd. ("NCS"), is a leading regional ICT solutions provider with 18 offices across 10 countries in the Asia Pacific and Middle East offering an extensive range of services, including consulting, development and integration, managed services, and technology solutions in areas such as the public sector, defence and homeland security, education, transportation and logistics, airport and aviation, healthcare and life sciences, financial services, manufacturing, telecommunications and utilities sectors.
 - (iv) 100% owned SingTel Digital Media Pte. Ltd. ("SingTel Digital Media") manages Singapore's premier web and mobile lifestyle destination, inSing.com, focusing on hyper-local content, user reviews and exclusive editorials to offer a uniquely Singaporean perspective on what to eat, things to do, shopping, hot deals and the best entertainment.
- 5.3 A list of significant subsidiaries, associates and joint ventures of the SingTel Group is set out on page 183 to page 192 of the SingTel Annual Report for the year ended 31 March 2013, which has been submitted as **Annexure 1** to this Consolidation Application. This includes 100% of the units in the NetLink Trust, which is a registered business trust established pursuant to regulatory requirements on structural separation under Singapore's Next Generation Nationwide Broadband Network ("Next Gen NBN"). The NetLink Trust structure has been previously determined by the Info-communications Development Authority of Singapore ("IDA") as meeting the no 'Effective Control' requirements.

List each entity that constitutes an Affiliate of the Applicant identified in response to Question 4 based on the Affiliates holding an attributable interest of 5% or more in the Applicant (Parent). For each Affiliate, indicate the Affiliate's principal line of business and the entity's percentage Voting Shares/Units/Equity Interests or Voting Power in the Licensee, Designated Business Trust or Designated Trust. Also indicate any entity in which that Affiliate holds an attributable interest of 5% or more (Sibling). Indicate any situation in which any Affiliate has special or preferential rights in the Licensee, Designated Business Trust or Designated Trust.

- 6.1 CityNet (the Trustee-Manager of the NetLink Trust) is a wholly-owned subsidiary of the CitySpring Infrastructure Trust (CitySpring Trust) (through its Trustee-Manager, CitySpring Infrastructure Management Pte. Ltd. (CitySpring)). For the avoidance of doubt, CityNet has no interest in the units in the NetLink Trust.
- 6.2 Please refer to the list of SingTel Group shareholders on page 194 to page 195 in the SingTel Annual Report for year ended 31 March 2013, which has been submitted as **Annexure 1** to this Consolidation Application.
- 6.3 As indicated in Section 5 above, SingTel currently holds 100% of the units in the NetLink Trust.

7 Description of the Consolidation

Check each of the following that correctly describes the Consolidation:

YES The Applicant identified in response to Question 4 is seeking to acquire, whether directly or indirectly, Voting Shares/Units/Equity Interests or Voting Power that would result in the Applicant holding Voting Shares/Units/Equity

Interests or Voting Power of at least 12% in the Licensee, Designated Business Trust or Designated Trust identified in response to Question 1.

Specify the percentage of Voting Shares/Units/Equity Interests or Voting Power sought to be acquired.

NO The Applicant identified in response to Question 4 is seeking to acquire the business of the Licensee, Designated Business Trust or Designated Trust as a going concern.

7.1 The NetLink Trust (through its Trustee-Manager, CityNet) will acquire 100% of the issued and paid-up capital in OpenNet. Section 12, Part 3 contains a description of the Consolidation.

In answering Questions 8 through 10, please aggregate the market share of the Applicant and any entity that has Effective Control over the Applicant, or over which the Applicant has Effective Control, or which is subject to Effective Control by an entity that has Effective Control over the Applicant.

Using the methodology described in Sub-sections 7.2.1 to 7.2.1.3 of the Telecom Consolidation and Tender Offer Guidelines, identify each telecommunication market (including value-added services and equipment) within Singapore in which, based on your best estimate, any of the Applicants has a market share of 5% or more. For each such telecommunication market, indicate, based on your best available information, the estimated market share of the 5 largest telecommunication market participants (based on revenue, customers, or other appropriate measurement).

- 8.1 Based on the Applicants best estimate:
 - (i) The NetLink Trust (through its Trustee-Manager, CityNet) has a market share of 5% or more in the Singapore market for access to Layer 0 passive infrastructure, namely ducts, manholes, COs and Essential Support Facilities ("ESFs"). Information regarding the deployment of Layer 1 dark fibre by other Facilities-based Operators ("FBOs") is not publicly available, however, based on the NetLink Trust duct kilometres and SingTel duct kilometres, the NetLink Trust has approximately [Confidential] of the Layer 0 market for ducts and manholes in Singapore;
 - (ii) OpenNet has a market share of 5% or more in the Singapore market for wholesale Layer 1 dark fibre services. Information regarding the deployment of Layer 1 dark fibre by other FBOs is not publicly available, however, OpenNet is the only provider of Layer 1 dark fibre services in the wholesale Layer 1 residential dark fibre service sector in Singapore; and
 - (iii) SingTel has a market share of 5% or more in various Singapore markets, as set out in **Annexure 2** of this Consolidation Application. The telecommunications markets identified in **Annexure 2** have been defined by the IDA. Furthermore, in respect of the following defined telecommunications markets:
 - Backhaul;
 - Commercial Retail International Telephone Services;
 - International Managed Data Service (National);
 - Terrestrial International Private Leased Circuit;
 - Digital Video Broadcast IP (Regional);
 - International IP Transit (National);
 - Leased Satellite Bandwidth (regional);
 - Residential Retail International Telephone Services; Page 9 of 64

- Satellite Terrestrial International Private Leased Circuit (Regional);
- Satellite TV (Downlink) (National);
- Satellite TV (Uplink) (National);
- Very Small Aperture Terminal (Regional); and
- Wholesale International Telephone Service,

the IDA has undertaken a lengthy and rigorous market analysis and determined that SingTel is non-dominant in the relevant telecommunications markets and does not possess Significant Market Power ("SMP") in the relevant telecommunications markets.

- (iv) In respect of the following telecommunications markets:
 - Residential Local Telephony Service;
 - Business Local Telephony Service;
 - Local Leased Circuit Service; and
 - Local Managed Data Service,

the IDA has not performed any recent rigorous market analysis. SingTel considers these relevant telecommunications markets to be competitive and that it does not possess SMP in these relevant telecommunications markets.

8.2 In any event, none of the wholesale and/or retail telecommunications markets identified in paragraph 8.1(iii) or paragraph 8.1(iv) above are affected by the Consolidation. The Consolidation involves the NetLink Trust (through its Trustee-Manager, CityNet) which is only licensed to install, operate and maintain Layer 0 and OpenNet which is only licensed to install, operate and maintain Layer 1. The NetLink Trust (through its Trustee-Manager, CityNet) is not permitted to offer for sale, sell or otherwise provide retail telecommunication systems and/or services to any End-User or wholesale transmission services through their systems or other

networks, without the IDA's prior written approval. The NetLink Trust (through its Trustee-Manager, CityNet) is also not permitted to offer for sale or sell any broadcasting services¹. Similarly, OpenNet is not permitted to offer for sale, sell or otherwise provide retail telecommunication systems and/or services to any End-User or wholesale transmission services through their systems or other networks, without the IDA's prior written approval. OpenNet is also not permitted to offer for sale or sell any broadcasting services².

8.3 See also the response to Section 12, Part 5(c), (d) and (e) below for further discussion in relation to the relevant markets and market concentration.

9 Identify any additional telecommunication market, wherever located, in which any of the Applicants has a market share in excess of 25%.

9.1 To the extent that it is relevant to the Consolidation Application (which the Applicants submit that it is not relevant for the purposes of this Consolidation), the Applicants, namely OpenNet, the NetLink Trust, CityNet and SingTel do not have a market share in excess of 25% in any telecommunications market outside of Singapore. This excludes any regional subsidiaries and associated companies of the Applicants.

¹ CityNet FBO license found at www.ida.gov.sg/Policies-and-Regulations/Industry-and-Licensees/Licensing/Framework-and-Guidelines/Facilities-Based-Operator

OpenNet FBO license found at www.ida.gov.sg/Policies-and-Regulations/Industry-and-Licensees/Licensing/Framework-and-Guidelines/Facilities-Based-Operator

- 10 Does the Consolidation satisfy either of the following criteria? (Y/N)
 - **NO** The Consolidation is a Horizontal Consolidation that will result in a Post-Consolidation Entity with more than a 15% market share in at least one telecommunication market within Singapore.
 - **YES** The Consolidation is a Non-Horizontal Consolidation in which at least one Applicant has more than a 25% market share in at least one telecommunication market, whether or not located in Singapore.

- 10.1 The Consolidation is a Non-Horizontal Consolidation in which at least 1 Applicant has more than a 25% market share in at least 1 telecommunications market in Singapore.
- 11 Do you wish to propose any Conditions to address possible competitive concerns arising from the Consolidation?
 - **YES** If yes, please attach a separate statement describing the proposed Conditions and the means by which they will address any possible competitive concerns.
- 11.1 Notwithstanding the Applicants view that the Consolidation does not give rise to any competitive concerns (for the reasons discussed in Section 12 below), SingTel is prepared as part of the Consolidation to undertake the following additional measures to enhance the actual and perceived independence of the Consolidation entity to ensure that regulatory requirements on structural separation under Singapore's Next Gen NBN continue to be met. SingTel confirms that it has obtained the necessary approval and mandate to offer and perform the following conditions:

(i) SingTel Interactive Pte. Ltd. ("SingTel Interactive") will as part of the Consolidation enter into a separate sale and purchase agreement to sell to the NetLink Trust (through its Trustee-Manager, CityNet) its approximate 30% of the issued and paid-up capital in OpenNet at the same time that the NetLink Trust (through its Trustee-Manager, CityNet) enters into a sale and purchase agreement with Axia NGNetworks Asia Pte. Ltd., SPH Net Pte. Ltd. and SPT Net Pte. Ltd. (together the "Vendors") to acquire the Vendors' combined approximate 70% of the issued and paid-up capital in OpenNet.

This sale and purchase agreement involving SingTel Interactive's approximate 30% of the issued and paid-up capital in OpenNet will occur as part of the Consolidation and will be completed at the commencement of Phase 1 of the Consolidation (see Section 12, Part 3 below for a discussion as to the structure and timing of the Consolidation).

Consequently, in Phase 1 of the Consolidation, SingTel will simply hold units in the NetLink Trust and be only a beneficiary of the NetLink Trust. SingTel will have no equity interest in either OpenNet or in CityNet (the Trustee-Manager of the NetLink Trust). SingTel will have no control or ownership in either OpenNet or CityNet (the Trustee-Manager of the NetLink Trust). SingTel's interest will be purely an economic interest in the NetLink Trust.

The NetLink Trust will continue to be separately managed by a neutral, independent Trustee-Manager, CityNet. This eliminates any control or ownership that SingTel may be perceived to possess through its direct interest in approximately 30% of the issued and paid-up capital in OpenNet.

(ii) SingTel will as part of the Consolidation sell more than 75% of its unitholding (i.e. at least 75% + 1 unit of its unitholding) in the NetLink Trust by 22 April 2018. SingTel undertakes and commits to the IDA to do all that is necessary in order to divest more than 75% of its unitholdings by 22 April 2018, including but not limited to, restructuring the balance sheet of the NetLink Trust (in particular, without limitation, the debt to equity ratio) to arrive at an optimal capital structure that is conducive to and will facilitate the divestment of more than 75% of its unitholdings. (Refer to SingTel Confidential Annexure 3)

With the Consolidation, additional time to divest is required to effect the orderly transfer of the OpenNet assets, business and the relevant personnel,

skills and expertise to the NetLink Trust in relation to the installation, operation and maintenance of the dark fibre network. The Consolidation entity will need time to integrate the Layer 0 and Layer 1 business and operations and achieve a steady-state prior to divestment.

SingTel will provide regular updates to the IDA on the progress of the divestment.

After SingTel Interactive's sale of its approximate 30% of the issued and paid-up capital in OpenNet as part of the Consolidation, and upon SingTel's sell down of its unitholding in the NetLink Trust, SingTel's unitholding in the NetLink Trust will be reduced to less than 25%. This level of unitholding:

- reflects the level that the IDA and SingTel agreed in relation to the NetLink Trust;
- is lower than SingTel Interactive's current direct interest of approximately 30% of the issued and paid-up capital in OpenNet; and
- is lower than the amount of direct interest permissible under the Next Gen NBN Request-For-Proposals ("Next Gen NBN RFP").

This measure eliminates any perception that SingTel possesses control of the Consolidation entity and/or its operations through its current unitholdings in the NetLink Trust,

- (iii) SingTel will undertake, represent and warrant, as part of the Consolidation, that so long as SingTel is the beneficial holder (whether directly or indirectly) of 25% or more of the units in the NetLink Trust, or has the ability to exercise (whether directly or indirectly) 25% or more of the voting rights attached to the units in the NetLink Trust, SingTel will not do any or all of the following:
 - (1) remove the Trustee-Manager, except on the following grounds:
 - (i) the Trustee-Manager has committed an offence under Singapore law or has contravened any material condition or restriction

imposed on it by any Licences (as defined in the Trust Deed constituting the NetLink Trust ("**Trust Deed**"));

- (ii) the Trustee-Manager (a) has acted fraudulently, in wilful default or in breach of trust, (b) has failed to exercise Due Care (as defined in the Trust Deed), or (c) has otherwise committed a material breach of any of its obligations or covenants under the Trust Deed;
- (iii) any order by a court of competent jurisdiction is made for the liquidation, winding up or bankruptcy of the Trustee-Manager or the appointment of any receiver of any of the assets of the Trustee-Manager or any liquidator or provisional liquidator or judicial manager of the Trustee-Manager or any resolution is validly and effectively passed by the members or creditors of the Trustee-Manager for the liquidation or winding up (including but not limited to a resolution by its members for a voluntary liquidation or winding up) of the Trustee-Manager or any analogous procedure under any applicable law; and/or
- (iv) subject to the IDA's approval, such approval not to be unreasonably withheld, in the event that Clause 3.9.2 and/or Schedule 2 of the Trust Deed have been amended or deleted and any of the following occurs:
 - (a) the Trustee-Manager undertakes or performs any of the Authorised Matters (as such term is defined in the Trust Deed as at the date thereof and prior to any amendment or deletion thereof) ("Authorised Matters") without being directed by SingTel or without the approval of SingTel; or
 - (b) the Trustee-Manager refuses or fails to undertake or perform any of the Authorised Matters where directed to do so by SingTel; or
 - (c) the Trustee-Manager refuses or fails to take such actions and steps, including but not limited to making modifications, alterations or additions to the provisions of the Trust Deed and/or making applications to such persons, bodies or authorities or appointments of such persons, as may be required of the Trust or the Trustee-Manager to undertake or

perform in relation to the relevant Authorised Matters, in accordance with SingTel's directions;

- approve any amendments, or take any action relating, to the Trust Deed that are contrary to the Control and Ownership Requirements as set out in paragraph 4.2, Part A, Volume 1 of Singapore's Next Generation Broadband Network NGNBN Project Network Company ("NetCo") Request for Proposal dated 11 December 2007 (and as amended from time to time) issued by IDA and bearing reference number IDA(RFP)-030;
- approve any amendments to the Trust Deed to vary the requirement to obtain the IDA's approval for those matters set out in the Trust Deed;
- (4) take any action relating to the NetLink Trust that requires approval from IDA under the Trust Deed without first obtaining such approval in accordance with the Trust Deed; and/or
- (5) approve or direct the winding up of the NetLink Trust, save where such action is to facilitate the final structure for the divestment as described in paragraph 2.6 of the Authorised Matters.

The above in paragraph 11.1(iii) are contained in a Supplemental Deed which is supplemental to the Deed of Undertaking made between the IDA and SingTel on 20 October 2008.

- (iv) As part of the Consolidation, so long as SingTel is the beneficial holder (whether directly or indirectly) of 25% or more of the units in the NetLink Trust, or has the ability to exercise (whether directly or indirectly) 25% or more of the voting rights attached to the units in the NetLink Trust, SingTel will not amalgamate or reconstruct, or change the structure or set up of the NetLink Trust or the manner in which any Trust Property (as defined in the Trust Deed) of the NetLink Trust is held, or any merger of the NetLink Trust with any other body, that is not an action or step taken in pursuance of an Authorised Matter as set out in paragraph 2.6 of the Authorised Matters (as defined in the Trust Deed) without first obtaining approval from IDA.
- (v) SingTel will as part of the Consolidation amend the Trust Deed such that the OpenNet board and the CityNet board will consist of no more than 5

directors, of which not more than 25% of its directors shall be appointed by SingTel ("**SingTel Director**") as the 100% unitholder in the NetLink Trust, with the remaining 75% or more comprising independent directors provided always that there shall be at least 1 SingTel Director. This eliminates any perception that SingTel possesses control over the decision-making.

- (vi) SingTel will as part of the Consolidation terminate the following 4 short form agreements between SingTel and OpenNet within 12 months of the commencement of Phase 1 of the Consolidation:
 - Engineering, Procurement and Construction Agreement;
 - Operations and Maintenance Agreement;
 - Co-location Agreement; and
 - Duct Use Agreement,

(collectively "OpenNet Agreements").

Upon the termination of the OpenNet Agreements, SingTel shall no longer provide to OpenNet the services under the OpenNet Agreements. The termination of the OpenNet Agreements will occur at about the same time as the OpenNet assets and business are transferred and integrated into the NetLink Trust. With the transfer of the OpenNet assets and business into the NetLink Trust and termination of the OpenNet Agreements, the relevant OpenNet and SingTel personnel, skills and expertise will be transferred to UMC (or a separate equivalent) (subject to the NetLink Trust's agreement to employ the personnel and agreement by the relevant personnel to accept such employment) to provide manpower services to the NetLink Trust in relation to the installation, operation and maintenance of its dark fibre network.

With the termination of the OpenNet Agreements, the payments (including variable charges) to SingTel will cease. As a result, the Consolidation entity will benefit from an improved cashflow. With the steady stream of quality revenue from services provided by the NetLink Trust (through its Trustee-Manager, CityNet), the Consolidation entity will have an improved ability to fund the ongoing requirement to deploy Layer 1 dark fibre to new

residential and non-residential premises and any additional Layer 0 ducts and manholes to house the Layer 1 dark fibre.

The NetLink Trust may also retain the flexibility to take-over the existing sub-contracting arrangements that SingTel has in place to support the ongoing provision of services to OpenNet at the commencement of Phase 2 of the Consolidation, which includes arrangements with sub-contractors to supply labour and materials for installation, operation and maintenance of OpenNet's dark fibre network. Alternatively, the NetLink Trust may call their own tenders for their sub-contracting arrangements if they so wish.

SingTel shall, within 3 months from the approval of the Consolidation or such other date as may be agreed between SingTel and the IDA, submit to the IDA for approval, such approval not to be unreasonably withheld, a detailed implementation plan for the transfer of the OpenNet business, assets and the relevant OpenNet and SingTel personnel to the NetLink Trust.

The detailed implementation plan shall include the:

- detailed timeline for the various activities relating to the transfer of the OpenNet business, assets and personnel and the transfer of the relevant SingTel personnel, skills and expertise to the NetLink Trust;
- assets to be transferred;
- relevant contracts to be novated or assigned;
- entity to which the assets and/or personnel will be transferred;
- personnel and their respective roles and responsibilities; and
- provision of regular updates on the progress of implementation.

This will enhance the capability and institutional competence of the NetLink Trust, providing it with the necessary personnel, skills and expertise to

undertake the design, engineering, procurement, construction, installation and maintenance of the Next Gen NBN dark fibre going forward.

This eliminates any control which may be perceived to arise as a result of SingTel providing to OpenNet the services under the OpenNet Agreements.

- (vii) SingTel will as part of the Consolidation resolve the outstanding disputes between SingTel and OpenNet in relation to the provision of services by SingTel to OpenNet pursuant to the OpenNet Agreements at the commencement of Phase 1 of the Consolidation. (Refer to SingTel/CityNet Confidential Annexure 10).
- (viii) SingTel will as part of the Consolidation continue the current arrangements under the Master Framework Agreement dated 22 July 2011 ("MFA") in relation to the future requirements of the NetLink Trust for inter-linking ducts and associated manholes for the installation of Next Gen NBN dark fibre to:
 - the remaining 5% of residential and non-residential premises that were not included in the Rollout Plan covering the 95% of residential and non-residential premises in Singapore;
 - meet its Universal Service Obligation ("USO"); or
 - a Non-Building Address Point ("**NBAP**").

Following the Consolidation, the MFA between the NetLink Trust (through its Trustee-Manager, CityNet) and SingTel will continue.

This eliminates any perceived concern regarding the NetLink Trust's ability to meet the Next Gen NBN's ongoing requirements for inter-linking ducts and associated manholes for the installation of Next Gen NBN dark fibre.

12 Minimum Required Information

Check if you have attached each item listed below; mark N/A (not applicable) where, to the best of your knowledge, no documents meeting the description exist:

YES Consolidation Agreements

- The Sale and Purchase Agreement between Axia NGNetworks Asia Pte. Ltd., SPH Net Pte. Ltd., SPT Net Pte. Ltd., SingTel Interactive Pte. Ltd. and CityNet Infrastructure Management Pte. Ltd. (in its capacity as Trustee-Manager of the NetLink Trust) for the sale and purchase of approximately 70% of the issued and paid-up share capital of OpenNet Pte. Ltd. (Refer to Confidential Annexure 4)
- The Sale and Purchase Agreement between SingTel Interactive Pte. Ltd. and CityNet Infrastructure Management Pte. Ltd. (in its capacity as Trustee-Manager of the NetLink Trust) for the sale and purchase of approximately 30% of the issued and paid-up share capital of OpenNet Pte. Ltd. (Refer to SingTel/CityNet Confidential Annexure 5)

YES Ancillary Agreements

- The Supplemental Deed of Trust executed or to be executed by CityNet Infrastructure Management Pte. Ltd. (in its capacity as Trustee-Manager of the NetLink Trust) (the "Trustee-Manager") which supplements the original Deed of Trust executed by the Trustee-Manager on 22 July 2011. (Refer to SingTel/CityNet Confidential Annexure 6)
- The Amended and Restated Deed of Trust Constituting NetLink Trust to be executed by CityNet Infrastructure Management Pte. Ltd. (in its capacity as Trustee-Manager of the NetLink Trust) (the "Trustee-Manager") to amend and restate the original Deed of Trust executed by the Trustee-Manager on 22 July 2011 (as supplemented by the Supplemental Deed of Trust). (Refer to SingTel/CityNet Confidential Annexure 7)
- The list of Reserved Matters and Authorised Matters to be incorporated in the trust deed constituting the NetLink Trust as at the commencement of Phase 2 of the Consolidation. We currently expect that the Phase 2 Trust Deed will be substantially similar to and no worse-off than the Phase 1 Trust Deed, save for the said list of Reserved Matters and Authorised Matters and the fee schedules, and other amendments which may be necessary or incidental as a result of the business of the NetLink Trust and OpenNet being merged and conducted by the NetLink Trust (as the consolidated entity). (Refer to SingTel/CityNet Confidential Annexure 8)

- The New Articles of Association of OpenNet Pte. Ltd. to be adopted by special resolution by CityNet Infrastructure Management Pte. Ltd. (in its capacity as Trustee-Manager of the NetLink Trust) as the sole shareholder of OpenNet Pte. Ltd. on the commencement of Phase 1 of the Consolidation. (Refer to SingTel/CityNet Confidential Annexure 9)
- Supplementary Deed between Singapore Telecommunications Limited and OpenNet Pte. Ltd. to be executed as at the commencement of Phase 1 of the Consolidation. (Refer to SingTel/CityNet Confidential Annexure 10)

YES Other Documents

- OpenNet's Audited Statement for the year ended 31 March 2013. (Refer to **Annexure 11**)
- SingTel Group Annual Report for year ended 31 March 2013. (Refer to **Annexure 1**)
- The NetLink Trust's Audited Statement for the year ended 31 March 2013. (Refer to **Annexure 12**)
- CityNet's Audited Statement for the year ended 31 March 2013. (Refer to **Annexure 13**)
- OpenNet's Business Plan. (Refer to **OpenNet Confidential Annexure 14**)
- The NetLink Trust's Business Plan. (Refer to NetLink Trust/CityNet Confidential Annexure 15)
- CityNet's Board Resolution. (Refer to CityNet Confidential Annexure 16)
- SingTel's Board Resolution. (Refer to **SingTel Confidential Annexure 17**)
- OpenNet's Board Resolution. (Refer to **OpenNet Confidential Annexure 18**)
- **N/A** A chart indicating the relationship between each Applicant and its respective Associates and Affiliates and their relevant Voting Shares/Units/Equity Interests or Voting Power.
- There are no situations in which the Voting Shares/Units/Equity Interests or Voting Power grants the holder thereof a special or preferential right, and there are no pending changes in the ownership structure of any of the Applicants or any anticipated significant changes in management or operations of OpenNet in

addition to the change that is the subject of this Consolidation Application.

YES Statement

• See Statement below.

STATEMENT

- 12.1 This Consolidation Application is structured as follows:
 - PART 1 INTRODUCTION;
 - PART 2 EXECUTIVE SUMMARY;
 - PART 3 THE CONSOLIDATION;
 - PART 4 THE APPLICANTS;
 - PART 5 COMPETITIVE IMPACT AND PUBLIC INTEREST
 - PART 6 CONCLUSION.

PART 1: INTRODUCTION

12.2 The Consolidation involves an acquisition by the NetLink Trust (through its Trustee-Manager, CityNet) of 100% of the issued and paid-up capital in OpenNet. The Consolidation is to be completed in 2 phases. This Consolidation Application relates to both Phase 1 and Phase 2 of the Consolidation.

OpenNet, the NetLink Trust and CityNet

- 12.3 OpenNet was established in 2008 to build, manage and operate a truly open high quality fibre optic network for the Next Gen NBN. This fibre optic network is the key foundation of the Next Gen NBN, which is part of the Intelligent Nation 2015 ("iN2015") to turn Singapore into a sophisticated city with seamless high-speed connectivity. As at 30 June 2013, OpenNet has successfully completed its nationwide deployment and Qualifying Persons ("QPs") may order Layer 1 dark fibre to any residential and non-residential premises in Singapore. OpenNet achieved 60% coverage by 31 December 2010 and 95% coverage of Singapore's residential and non-residential buildings by 30 June 2012.
- OpenNet has been able to achieve a successful and rapid deployment of the Next Gen NBN by leveraging on SingTel's passive infrastructure assets, such as ducts, manholes and COs. As part of OpenNet's proposal in response to the Next Gen NBN RFP, SingTel committed to transfer these relevant passive infrastructure assets to a registered business trust to be managed by a neutral and independent party³. On 22 July 2011, SingTel announced that it had entered into conditional agreements to sell the relevant passive infrastructure assets, namely relevant ducts, manholes and 7 COs used by OpenNet to the NetLink Trust (through its Trustee-Manager, CityNet).
- 12.5 On 22 September 2011, the IDA granted a Facilities-based Operator ("**FBO**") licence to CityNet for the ownership, installation, maintenance and operation of a nationwide network of ducts, manholes and COs, and for the provision of access to and use of the same (including the provision of operation and maintenance services) to other telecommunication licensees.
- 12.6 Being the key foundation of the Next Gen NBN, OpenNet has provided a competitive, open access fibre optic network capable of delivering ultra-high speeds of 1Gbps and above and made available to all QPs on a non-discriminatory basis through the IDA approved Interconnection Offer ("ICO"). OpenNet now serves 8 QPs and there are approximately 24 Retail Service Providers ("RSPs") providing fibre-based services over the Next Gen NBN. As at end-June 2013, the number of fibre broadband subscribers using the Next Gen NBN reached approximately 380,000⁴.
- 12.7 The Consolidation will bring together the Layer 0 and Layer 1 passive infrastructure assets used by the Next Gen NBN (as originally envisaged by the

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www.ida.gov.sg/About-Us/Newsroom/Media-Releases/2008/20080926174755

www.opennet.com.sg/press/record-high-demand-for-fibre-in-june-2013/

IDA in its 3 layer Next Gen NBN industry structure) into a single registered business trust, managed by a neutral and independent party, CityNet. Throughout the process of the Consolidation, open access to the Next Gen NBN will continue to be made available to all QPs on a non-discriminatory basis through the IDA approved ICO. Further, access to the NetLink Trust's ducts, manholes and COs will continue to be available pursuant to an IDA-approved Reference Access Offer ("RAO") and/or IDA filed and approved tariffs.

Consolidation Review Process

- 12.8 Under section 32B(6) of the Telecommunications Act (Cap. 323), no person shall acquire the business of a designated telecommunication licensee as a going concern, unless the person obtains the written approval of the IDA.
- 12.9 Further, under the Code of Practice for Competition in the Provision of Telecommunication Services 2012 ("**Telecom Competition Code**"), any party which acquires a Designated Telecommunications Licensee (as well as the Designated Telecommunications Licensee) must seek the IDA's approval in the event that the acquisition would result in a Consolidation with the Designated Telecommunications Licensee.⁵
- 12.10 Consolidation means any transaction which results in a person:
 - becoming a 30% controller of a Designated Telecommunications Licensee, Designated Business Trust or Designated Trust;
 - acquiring any business of a Designated Telecommunications Licensee, Designated Business Trust or Designated Trust conducted pursuant to a telecommunications licence granted by the IDA (or any part thereof) as a going concern; or
 - obtaining effective control over a Designated Telecommunications Licensee, Designated Business Trust or Designated Trust.
- 12.11 A 30% controller is a person who has 30% or more of the total number of voting shares in the Designated Telecommunications Licensee or is in a position to control 30% or more of the voting power in the Designated Telecommunications Licensee.

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⁵ Telecom Competition Code, s.10.3.1.1(c)

- 12.12 In the event that the transaction requires the approval of the IDA under section 32B(6), the Acquiring Party and the Designated Telecommunications Licensee must jointly submit a single Consolidation Application to the IDA.⁶
- 12.13 The IDA's consolidation review process is designed to identify those Consolidations that are likely to substantially lessen competition or harm the public interest in the Singapore telecommunications market.
- 12.14 Based on its consolidation review, the IDA may prevent Consolidations that are anti-competitive or are against the public interest.⁷

PART 2: EXECUTIVE SUMMARY

- 12.15 The Applicants (as described in Sections 1 and 4 of this Consolidation Application) seek the IDA's approval of the Consolidation (as described in Part 3, being both Phase 1 and Phase 2) for the reasons set out in this Consolidation Application, which are summarised as follows:
 - the Consolidation is a Non-Horizontal Consolidation involving 2 companies operating in separate telecommunications markets:
 - the NetLink Trust (through its Trustee-Manager, CityNet) which operates in the wholesale market for access to Layer 0 passive infrastructure in Singapore, namely ducts, manholes, COs and ESFs; and
 - OpenNet which operates in the market for wholesale Layer 1 dark fibre services in Singapore in the wholesale residential and wholesale non-residential sectors;
 - Non-Horizontal Consolidations generally do not restrict competition and this Consolidation does not. In fact, the Consolidation is likely to enhance efficiencies and hence competition;
 - both CityNet and OpenNet are prohibited under their respective FBO licenses from selling retail services and wholesale transmission services;

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⁶ Telecom Competition Code, s.10.3.1.1(d)

⁷ Consolidation Guidelines, s.4.3

- the no 'Effective Control' requirements of the CityNet and OpenNet FBO licenses are met through the separate registered business trust, amongst other reasons further described in this Consolidation Application;
- the Consolidation compares favourably to the competition conditions existing in the absence of the Consolidation. The structure of the market after the Consolidation is more consistent with the IDA's preferred "three (3) layer" industry structure and the Consolidation engenders a number of efficiencies which are competition enhancing;
- given that the Consolidation is a Non-Horizontal Consolidation, the Consolidation does not result in any negative change to market concentration levels as follows:
 - the wholesale market for access to Layer 0 passive infrastructure is competitive with such infrastructure available from other operators. The IDA has previously found that this market is competitive;
 - the residential segment of the wholesale Layer 1 dark fibre services market is served only by OpenNet but on an open-access basis in accordance with the IDA's Next Gen NBN requirements;
 - the non-residential segment of the wholesale Layer 1 dark fibre services market is a competitive market and is served by many FBOs;
- competition in downstream markets remain unaffected by the Consolidation because neither CityNet nor OpenNet are permitted to provide services in these markets under their respective FBO licenses;
- a number of efficiencies are derived from the Consolidation including operational efficiencies (e.g. associated with fault management) and improved Layer 1 deployment co-ordination;
- the Consolidation entity will remain a highly regulated, open access network business; and
- the Consolidation entity will have a strong asset base and stable revenues to fund ongoing Layer 0 and Layer 1 deployments.

- 12.16 Notwithstanding that the Consolidation does not raise competition concerns, the Applicants have also offered to comply with certain conditions in connection with the Consolidation. These conditions are summarised in Section 11 above and include:
 - SingTel Interactive will sell to the NetLink Trust its approximate 30% of the issued and paid-up capital in OpenNet at the same time that the NetLink Trust enters into a sale and purchase agreement with the Vendors to acquire the Vendors' combined approximate 70% of the issued and paid-up capital in OpenNet;
 - SingTel will as part of the Consolidation sell down its current unitholding in the enlarged NetLink Trust to less than 25% by 22 April 2018;
 - SingTel makes certain undertakings as part of the Consolidation that so long as SingTel is the beneficial holder (whether directly or indirectly) of 25% or more of the units in the NetLink Trust, or has the ability to exercise (whether directly or indirectly) 25% or more of the voting rights attached to the units in the NetLink Trust, SingTel will not do certain things such as removing the Trust Manager except on certain limited grounds, amongst other things, as described in Section 11 above;
 - as part of the Consolidation, so long as SingTel is the beneficial holder (whether directly or indirectly) of 25% or more of the units in the NetLink Trust, or has the ability to exercise (whether directly or indirectly) 25% or more of the voting rights attached to the units in the NetLink Trust, SingTel will not amalgamate or reconstruct, or change the structure or set up of the NetLink Trust or the manner in which any Trust Property (as defined in the Trust Deed) of the NetLink Trust is held, or any merger of the NetLink Trust with any other body, that is not an action or step taken in pursuance of an Authorised Matter as set out in paragraph 2.6 of the Authorised Matters (as defined in the Trust Deed) without first obtaining approval from the IDA;
 - SingTel will as part of the Consolidation terminate the OpenNet Agreements and the relevant OpenNet and SingTel personnel, skills and expertise will be transferred to UMC or an equivalent separate legal entity established under the NetLink Trust (through its Trustee-Manager, CityNet) to provide manpower services to the NetLink Trust in relation to the installation, operation and maintenance of its dark fibre network; and

• SingTel will as part of the Consolidation continue the current arrangements under the MFA in relation to the future requirements of the Netlink Trust for the inter-linking ducts and associated manholes for the installation of Next Gen NBN dark fibre.

PART 3: THE CONSOLIDATION

12.17 As indicated above, the Consolidation will occur in 2 phases as follows:

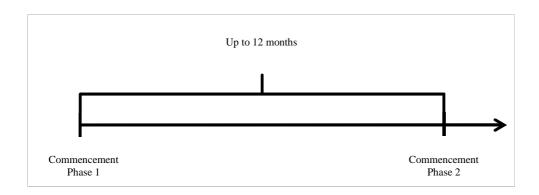


Diagram 1

PHASE 1: Immediately following satisfaction of the conditions precedent under the sale and purchase agreements, including the IDA's approval of the Consolidation and completion of the acquisition of OpenNet thereunder, the NetLink Trust (through its Trustee-Manager, CityNet) will hold 100% of the issued and paid-up capital of OpenNet. The NetLink Trust structure is as illustrated below in Diagram 2.

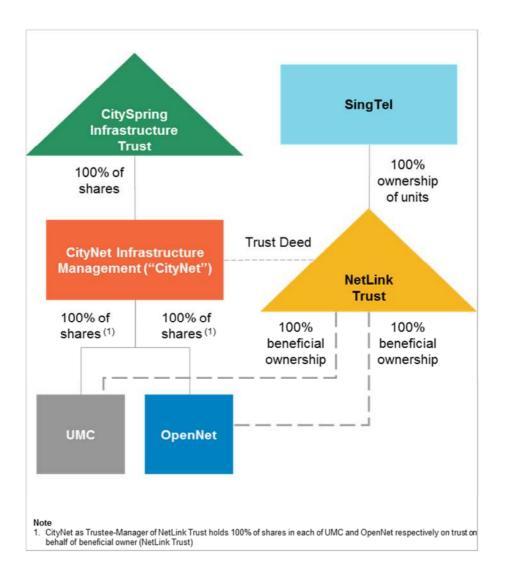


Diagram 2

PHASE 2: Within 12 months of the commencement of Phase 1 of the Consolidation, the assets and business of OpenNet will be transferred and integrated into the NetLink Trust. At about the same time, SingTel will terminate the OpenNet Agreements and the relevant OpenNet and SingTel personnel, skills and expertise will be transferred to UMC (or a separate equivalent) (subject to the NetLink Trust's agreement to employ the personnel and agreement by the relevant personnel to accept such employment) to provide manpower services to the NetLink Trust in relation to the installation, operation and maintenance of its dark fibre network. CityNet will remain as the neutral, independent Trustee-Manager. With the transfer of the OpenNet assets, business and personnel into the NetLink Trust and/or UMC (or a separate equivalent), the OpenNet FBO license will be surrendered or terminated and CityNet's FBO license will be amended by the IDA to enable CityNet to install, operate and maintain the systems and provide the services previously undertaken by OpenNet. On commencement of Phase 2 of the Consolidation, there will be a single registered business trust – the NetLink Trust.

CityNet will remain as the neutral, independent Trustee-Manager. The NetLink Trust structure is as illustrated below in Diagram 3.

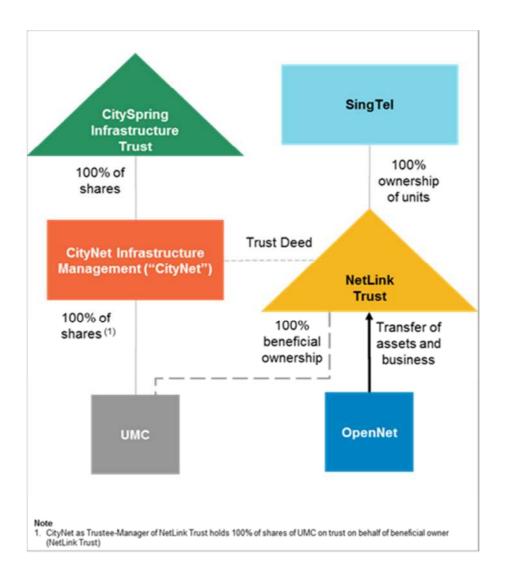


Diagram 3

- 12.18 The IDA's original vision was for 3 distinct industry layers, with Layer 0 and Layer 1 passive infrastructure of the Next Gen NBN, such as ducts, manholes and dark fibre, contained within a single NetCo business. The current separation of Layer 0 (ducts, manholes and COs) in the NetLink Trust and Layer 1 dark fibre in OpenNet, is not, therefore, consistent with the original Next Gen NBN industry structure. The separation within the passive infrastructure layer is artificial and inefficient.
- 12.19 As a result of the Consolidation, structural separation between the passive (NetCo) and active wholesale ("**OpCo**") infrastructure of the Next Gen NBN will be maintained. This is consistent with global best practice and the original IDA Next Gen NBN industry structure.

- 12.20 The Consolidation facilitates a path to better control of operations and synergies as OpenNet and the NetLink Trust (through its Trustee-Manager, CityNet) would be vertically integrated with complementary operations.
- 12.21 Pending commencement of Phase 1 of the Consolidation (and during Phase 1 of the Consolidation), the NetLink Trust (through its Trustee-Manager, CityNet) and OpenNet will continue to meet their respective contractual and/or regulatory obligations to the IDA and to the QPs. At the commencement of Phase 2 of the Consolidation, the Consolidation entity (i.e. the NetLink Trust (through its Trustee-Manager, CityNet)) will meet the contractual and/or regulatory obligations to the IDA and to the QPs.

PART 4: THE APPLICANTS

12.22 The Applicants for the Consolidation are the NetLink Trust, CityNet, OpenNet and SingTel.

NetLink Trust

- 12.23 The NetLink Trust (through its Trustee-Manager, CityNet) is the Acquiring Party in the Consolidation, and will acquire 100% of the issued and paid-up capital of OpenNet. The NetLink Trust is a registered business trust established in July 2011 pursuant to regulatory requirements on structural separation under the Next Gen NBN.
- 12.24 The NetLink Trust is a Designated Business Trust.

CityNet

- 12.25 CityNet is a wholly-owned subsidiary of CitySpring, the Trustee-Manager of the CitySpring Trust.
- 12.26 CityNet carries on the business of ownership, installation, operation and maintenance of ducts, manholes, COs and space in COs for the purposes of facilitating telecommunications activities.
- 12.27 In July 2011, CityNet acquired from SingTel certain infrastructure assets (namely ducts and manholes used by OpenNet and 7 COs).

12.28 CityNet is a Designated Telecommunications Licensee, a Public Telecommunications Licensee and a Dominant Licensee for the purposes of the Telecom Competition Code.

OpenNet

- 12.29 OpenNet is the party whose shares are the subject of the acquisition. OpenNet is a joint venture between SingTel Interactive Pte. Ltd. (approximately 30%), Axia NGNetworks Asia Pte. Ltd. (approximately 30%), SPH Net Pte. Ltd. (approximately 25%) and SPT Net Pte. Ltd. (approximately 15%).
- 12.30 OpenNet was appointed by the IDA in September 2008 as the network company to design build and operate the passive infrastructure of the Next Gen NBN (NetCo).
- 12.31 OpenNet is a Designated Telecommunications Licensee, a Public Telecommunications Licensee and a Dominant Licensee for the purposes of the Telecom Competition Code.

<u>SingTel</u>

- 12.32 SingTel holds 100% of the units in the Acquiring Party, the NetLink Trust. CityNet is the Trustee-Manager of the NetLink Trust.
- 12.33 SingTel is licensed to provide telecommunications services in Singapore. SingTel has a comprehensive portfolio of services that includes voice and data services over fixed, wireless and Internet platforms.
- 12.34 SingTel services both residential and non-residential customers and is committed to bringing the best of global communications to its customers in the Asia Pacific and beyond.
- 12.35 SingTel is a Designated Telecommunications Licensee, a Public Telecommunications Licensee and a Dominant Licensee for the purposes of the Telecom Competition Code.

PART 5: COMPETITIVE IMPACT AND PUBLIC INTEREST

- 12.36 For the reasons discussed below, the Applicants consider that the Consolidation will not substantially lessen competition in any telecommunications market in Singapore. Further, the Consolidation will not result in any adverse impact to the public interest and will likely give rise to increased efficiencies which will benefit consumers and the telecommunications market in Singapore.
- 12.37 Notwithstanding the Applicants view that the Consolidation does not give rise to any competitive concerns, the conditions in Section 11 also eliminate any perceived concern with regard to the level of independence of the Consolidation entity.

(a) The Consolidation Is A Non-Horizontal Consolidation: No Restriction of Competition

- 12.38 As discussed below, the NetLink Trust (through its Trustee-Manager, CityNet) and OpenNet operate in separate telecommunications markets:
 - the NetLink Trust (through its Trustee-Manager, CityNet) operates in the wholesale market for access to Layer 0 passive infrastructure in Singapore, namely access to ducts, manholes, COs and ESFs (but excluding wholesale Layer 1 dark fibre services); and
 - OpenNet operates in the market for wholesale Layer 1 dark fibre services in Singapore (but excluding wholesale Layer 0 services), which may be divided into sectors involving wholesale Layer 1 residential dark fibre service and wholesale Layer 1 non-residential dark fibre service.
- 12.39 Accordingly, the Consolidation constitutes a Non-Horizontal Consolidation. As the IDA has noted in its Advisory Guidelines Governing Consolidation Review and Tender Offer Process under Section 10 of the Telecom Competition Code ("Consolidation Guidelines"):⁸

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[&]quot;... generally do not restrict competition. On the contrary, such Consolidations often increase efficiency, thereby enabling a Licensee to compete more effectively."

⁸ Consolidation Guidelines, s. 4.2.2

12.40 Further, the European Commission has also recognised that Non-Horizontal Consolidations are less likely to restrict competition and provide substantial scope for efficiencies and may be pro-competitive⁹:

"Non-horizontal mergers are generally less likely to significantly impede effective competition than horizontal mergers.

First, unlike horizontal mergers, vertical or conglomerate mergers do not entail the loss of direct competition between the merging firms in the same relevant market. As a result, the main source of anti-competitive effect in horizontal mergers is absent from vertical and conglomerate mergers.

Second, vertical and conglomerate mergers provide substantial scope for efficiencies. A characteristic of vertical mergers and certain conglomerate mergers is that the activities and/or the products of the companies involved are complementary to each other. The integration of complementary activities or products within a single firm may produce significant efficiencies and be pro-competitive."

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⁹ European Commission Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2008/C 265/07) at paragraphs 11-13

- 12.41 Similarly, the Australian Competition and Consumer Commission ("ACCC") in Australia states in its Merger Guidelines¹⁰ that "in the majority of cases, non-horizontal mergers will raise no competition concerns".
- 12.42 Furthermore, issues of potential foreclosure of markets that have been identified by other regulators do not arise in this Consolidation because of the regulated openaccess obligations to which the NetLink Trust (through its Trustee-Manager, CityNet) and OpenNet are subject, as described further below.
- 12.43 For the reasons elaborated below, the Applicants consider that the Consolidation will not substantially lessen competition in any telecommunications market in Singapore. Further, the Applicants submit that significant efficiencies are obtained by the Consolidation and that the Consolidation outcome is likely to be procompetitive.
- (b) The Consolidation Will Meet The No 'Effective Control' Requirements Under FBO License(s)
- 12.44 Under the CityNet FBO license issued on 22 September 2011¹¹ and the OpenNet FBO license issued on 1 April 2009¹², CityNet and OpenNet are required to ensure that they:
 - acting alone or in concert with their Associates, have no Effective Control over any other telecommunication licensee or broadcasting licensee;
 - are not under the Effective Control of any other telecommunication licensee or broadcasting licensee, whether acting alone or in concert with their Associates; and
 - are not under the Effective Control of the same Controlling Entity, acting alone or in concert with their Associates, as any other telecommunication licensee or broadcasting licensee.
- 12.45 In previously establishing the NetLink Trust structure, IDA had determined that the no 'Effective Control' requirements were met by:

CityNet FBO license found at www.ida.gov.sg/Policies-and-Regulations/Industry-and-Licensees/Licensing/Framework-and-Guidelines/Facilities-Based-Operator

¹⁰ Australian Competition and Consumer Commission, Merger Guidelines 2008 at para 5.21

¹² OpenNet FBO license found at www.ida.gov.sg/Policies-and-Regulations/Industry-and-Licensees/Licensing/Framework-and-Guidelines/Facilities-Based-Operator

- Establishing a registered business trust under the Business Trust Act (Cap. 31A), which must meet certain composition requirements regarding independent members. Under the Business Trust Act (Cap. 31A), the Board of Directors of the Trustee-Manager must meet certain composition requirements regarding independent members. The independence and composition requirements are set out in detail in the Business Trusts Regulations ("BT Regulations") as follows: 13
 - at least a majority of the directors of the Board of the Trustee-Manager shall be independent from management and business relationships with the Trustee-Manager;
 - at least one-third of the directors of the Board of the Trustee-Manager shall be independent from management and business relationships with the Trustee-Manager and from every substantial shareholder of the Trustee-Manager; and
 - at least a majority of the directors of the Board of the Trustee-Manager shall be independent from any single substantial shareholder of the Trustee-Manager.
- Appointing a Trustee-Manager (i.e. CityNet) with 100% of the voting shares in the Trustee-Manager held by an independent party. CityNet is a neutral and independent party and is a wholly-owned subsidiary of the CitySpring Trust, and is held by CitySpring.
- Restricting SingTel's right to appoint not more than 30% of the members of the CityNet board. Without majority representation on the CityNet board, SingTel does not have 'Effective Control' over CityNet's decision-making process.
- Limiting the circumstances under which CityNet could be removed by SingTel as Trustee-Manager.
- Obtaining the IDA's approval of the Trust Deed.

12.46 As noted above in Part 3 of this Consolidation Application, within 12 months of the

commencement of Phase 1 of the Consolidation, OpenNet's assets and business will be transferred into the NetLink Trust. Furthermore, at about the same time the OpenNet Agreements will be terminated and the relevant OpenNet and SingTel

¹³ www.mas.gov.sg/~/media/resource/legislation_guidelines/business_trust/sub_legislation/Business_Trusts_Regulations_2005.pdf Page 36 of 64

personnel, skills and expertise transferred to UMC (or a separate equivalent) (subject to the NetLink Trust's agreement to employ the personnel and agreement by the relevant personnel to accept such employment) to provide manpower services to CityNet in relation to the installation, operation and maintenance of the NetLink Trust's dark fibre network.

- 12.47 In Phase 2 of the Consolidation, the existing NetLink Trust structure will continue and CityNet will continue to be the neutral, independent Trustee-Manager of the enlarged NetLink Trust. The NetLink Trust structure has been previously determined by the IDA as meeting the no 'Effective Control' requirements. Upon the commencement of Phase 2 of the Consolidation, the no 'Effective Control' requirements will be met for the following reasons:
 - The NetLink Trust structure has been previously determined by the IDA as meeting the no 'Effective Control' requirements under the CityNet FBO license;
 - No telecommunications licensee or broadcasting licensee will exercise 'Effective Control' over the NetLink Trust and/or the Trustee-Manager, CityNet;
 - The NetLink Trust will be separately managed by a neutral and independent Trustee-Manager, CityNet. CityNet will have no 'Effective Control' over any other telecommunication licensee or broadcasting licensee nor will CityNet be under the 'Effective Control' of any other telecommunication licensee or broadcasting licensee;
 - SingTel will have no equity interest in OpenNet and/or in CityNet (the Trustee-Manager of the NetLink Trust). SingTel will simply hold units in the NetLink Trust and be only an economic beneficiary of the NetLink Trust; and
 - The conditions set out in Section 11 serve to address any perceived concerns.
- 12.48 In Phase 1 of the Consolidation, the current OpenNet board members will resign and the current CityNet board members will be appointed to the OpenNet board. The current CityNet board composition has been previously determined by the IDA as meeting the no 'Effective Control' requirements under CityNet's FBO license. In

Phase 1 of the Consolidation, the board of OpenNet will reflect the board composition of CityNet, that is:

- the OpenNet board will consist of no more than 5 directors, of which not more than 25% of its directors shall be appointed by SingTel ("SingTel Director") as the 100% unitholder in the NetLink Trust, with the remaining 75% or more comprising independent directors provided always that there shall be at least 1 SingTel Director; and
- the Chairman of the OpenNet Board will be an independent director.

12.49 Further:

- as OpenNet holds an FBO licence, the IDA will be entitled to approve changes to the board of OpenNet; and
- all the voting shares in CityNet are held by CitySpring, an independent party.
- 12.50 Furthermore, although the composition of the OpenNet board will be the same as that of the CityNet board, the directors on the OpenNet board will have to discharge their fiduciary duties owed to, and take into account the interests of, OpenNet, when considering matters relating to OpenNet.
- 12.51 In Phase 1 of the Consolidation, OpenNet will continue to have its own CEO and management team.
- 12.52 At the commencement of Phase 2 of the Consolidation, the enlarged NetLink Trust will continue to be separately managed by a neutral, independent Trustee-Manager, CityNet. As indicated above, the CityNet board will consist of no more than 5 directors, of which not more than 25% of its directors shall be appointed by SingTel as the 100% unitholder in the NetLink Trust, with the remaining 75% or more comprising independent directors provided always that there shall be at least 1 SingTel Director and the Chairman of the CityNet Board will be an independent director. The CityNet board composition has been previously determined by the IDA as meeting the no 'Effective Control' requirements under CityNet's FBO license.

12.53 Further:

- as CityNet holds an FBO licence, the IDA will be entitled to approve changes to the board of CityNet; and
- all the voting shares in CityNet are held by CitySpring, an independent party.
- 12.54 Notwithstanding this, the Applicants recognise that in Phase 1 of the Consolidation, CityNet will hold 100% of the issued and paid-up capital in OpenNet. The Applicants understand that in holding 100% of the issued and paid-up capital in OpenNet, CityNet and OpenNet may be in breach of their respective FBO licenses during the limited transition period from Phase 1 to Phase 2 of the Consolidation. In the event that this is the case, as part of the approval of the Consolidation, the Applicants would request that the IDA grant to CityNet and to OpenNet, a waiver from compliance with the relevant FBO license condition during Phase 1 of the Consolidation. As indicated above, upon commencement of Phase 2 of the Consolidation, the Consolidation entity will meet the no 'Effective Control' requirements.
- 12.55 In summary, upon the commencement of Phase 2 of the Consolidation, the no 'Effective Control' requirements will be met by the Applicants. Neither CityNet nor the NetLink Trust will be under the 'Effective Control' of any telecommunications licensee or broadcasting licensee as a result of the Consolidation.
- (c) The Consolidation Will Have No Adverse Impact On Competition In The Singapore Telecommunications Market
- 12.56 To determine whether a consolidation may result in a substantial lessening of competition in a market, it is first necessary to assess the factual and counterfactual associated with the consolidation.
- 12.57 As the Competition Commission of Singapore's ("CCS") Guidelines on the Substantive Assessment of Mergers makes clear:¹⁴

"In applying the SLC test, the CCS will evaluate the prospects for competition in the future with and without the merger. The competitive

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¹⁴ Competition Commission of Singapore (2012) Guidelines on the Substantive Assessment Of Mergers 2012, s. 4.6, p. 12

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situation without the merger is referred to as the "counterfactual". The SLC test will be applied prospectively, that is, future competition will be assessed with and without the merger."

12.58 This approach is consistent with the European Commission's approach. In its merger guidelines the European Commission provides the following information: 15

"In assessing the competitive effects of a merger, the Commission compares the competitive conditions that would result from the notified merger with the conditions that would have prevailed without the merger. In most cases the competitive conditions existing at the time of the merger constitute the relevant comparison for evaluating the effect of a merger"

12.59 Similarly, the Department of Justice ("**DoJ**") and Federal Trade Commission ("**FTC**") in the US have stated:¹⁶

"The Agencies seek to identify and challenge competitively harmful mergers while avoiding unnecessary interference with mergers that are either competitively beneficial or neutral. Most merger analysis is necessarily predictive, requiring an assessment of what will likely happen if a mergers proceeds as compared to what will likely happen if it does not".

- 12.60 The same approach is adopted by the Office of Fair Trading ("**OFT**") in the UK, the ACCC in Australia and other competition authorities.
- 12.61 Taking this approach, the Consolidation will have, at a minimum, a neutral competitive impact on the telecommunications market in Singapore and, in fact, over time, will most likely have a beneficial effect.
- 12.62 As discussed further below, the Consolidation will neither change the current market concentration levels in the relevant markets, nor will it alter the status of OpenNet or CityNet as open access network operators. The Consolidation does not impact upon any other downstream telecommunications markets in Singapore.
- 12.63 In Phase 1 of the Consolidation, OpenNet will continue to exist as an IDA FBO licensee and will provide access on a non-discriminatory basis to all QPs in Singapore pursuant to OpenNet's ICO. Similarly, in Phase 1 of the Consolidation,

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¹⁵ European Commission, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, 2004/C 31/03, 5 February 2004, paragraph 9

¹⁶ US Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, 19 August 2010, page 1

CityNet will continue to exist as an IDA FBO licensee and will provide access to the NetLink Trust's lead-in ducts and associated lead-in manholes and COs on a non-discriminatory basis to all QPs in Singapore pursuant to CityNet's RAO and/or IDA filed and approved tariffs.

- 12.64 At the commencement of Phase 2 of the Consolidation, CityNet will continue as an IDA FBO licensee with an expanded FBO license. It will continue to be designated as a Dominant Licensee and will be required to continue to provide:
 - access to its Layer 0 lead-in ducts and associated lead-in manholes and COs
 on a non-discriminatory basis to all QPs in Singapore on IDA-approved
 terms and conditions;
 - access to its Layer 1 dark fibre on a non-discriminatory basis to all QPs in Singapore on IDA-approved terms and conditions; and
 - access to its other ducts and manholes on a non-discriminatory basis to all QPs in Singapore pursuant to IDA filed and approved tariffs.
- 12.65 The Consolidation will likely have a positive effect on the Singapore telecommunications market as it gives rise to the IDA's initial vision for a 3 layer industry structure for the Next Gen NBN, and will permit increased efficiencies for the benefit of consumers and the telecommunications market in Singapore more generally.
- 12.66 Further, as a result of the Consolidation, SingTel Interactive's approximately 30% direct interest in OpenNet will be completely removed, with OpenNet's current shareholders (including SingTel Interactive) transferring all direct control to the NetLink Trust (through its Trustee-Manager, CityNet). The OpenNet Agreements will be terminated and the relevant SingTel personnel, skills and expertise transferred to the NetLink Trust. This will remove any perception of influence that SingTel may be thought to have in downstream markets.
- 12.67 The additional conditions in Section 11 also eliminate any perceived concern with regard to the level of independence of the Consolidation entity.
- 12.68 Taken together, the Consolidation compares favourably to the competitive conditions existing in the absence of the Consolidation. That is, the structure of the market will be better aligned with the IDA's preferred "three (3) layer" industry

structure, in furtherance of the IDA's original approach to structural separation in the Next Gen NBN, with the Consolidation than without it. For instance, the Consolidation engenders a number of efficiencies (as discussed below), including the simplification of the 'chain of command' with regard to fault finding at the Layer 0 and Layer 1 level.

(d) The Consolidation Does Not Result In Any Negative Change To Market Concentration Levels

- 12.69 Changes in market concentrations is one of the key factors that competition authorities examine when considering whether a transaction will result in a substantial lessening of competition in a market.
- 12.70 International competition authorities typically evaluate consolidations of this nature by reference to the levels of market concentration that exist before and after the consolidation and then use established criteria to determine whether a change in that level of concentration would raise issues from a competition perspective.
- 12.71 In this section, the Applicants identify the markets in which the relevant parties operate and show that the Consolidation will not change the market structure or negatively impact upon the number of market participants (or regulatory frameworks) in any of the markets in which the relevant parties operate or any downstream markets. The Consolidation will not result in any negative change to market concentration in these, or any other telecommunication markets in Singapore. The Consolidation constitutes a Non-Horizontal Consolidation and there will be no increase in concentration levels in the relevant markets for the purposes of any competition analysis.

Summary of Relevant Markets

- 12.72 The NetLink Trust (through its Trustee-Manager, CityNet) and OpenNet operate in separate telecommunications markets:
 - The NetLink Trust (through its Trustee-Manager, CityNet) operates in the wholesale market for access to Layer 0 passive infrastructure in Singapore, namely access to ducts, manholes, COs and ESFs (but excluding wholesale Layer 1 dark fibre services); and

- OpenNet operates in the market for wholesale Layer 1 dark fibre services in Singapore (but excluding wholesale Layer 0 services), which may be divided into sectors involving wholesale Layer 1 residential dark fibre service and wholesale Layer 1 non-residential dark fibre service.
- 12.73 Further, SingTel operates predominately in separate telecommunications markets to both CityNet and to OpenNet:
 - SingTel predominantly operates in the retail and wholesale market for Layer
 1.5 Layer 3 services in Singapore;
 - SingTel does not generally provide access to its network of inter-linking ducts and manholes and in fact acquires access to CityNet's inter-linking ducts and manholes on IDA filed and approved terms and conditions;
 - SingTel provides IDA regulated access under the Reference Interconnection Offer ("RIO") to certain Layer 0 passive infrastructure, namely, access to lead-in ducts and associated lead-in manholes, co-location at exchange buildings and ESFs;
 - SingTel does not provide wholesale or retail Layer 1 residential dark fibre services and in fact acquires wholesale Layer 1 residential dark fibre services from OpenNet on a non-discriminatory basis under the OpenNet ICO; and
 - SingTel provides limited retail Layer 1 non-residential dark fibre services in the enterprise market and limited wholesale Layer 1 dark fibre services to FBOs in the submarine cable backhaul markets in Singapore.

Market Definition

12.74 As noted in the IDA's Consolidation Guidelines, market definition has 2 principal dimensions; service/product and geography:

"7.2.1.1.1 Service or Product Markets

The relevant market for a Service or product provided by an Applicant consists of both the specific Service or product provided by the Applicant and any additional Service or product that buyers regard as interchangeable with, or substitutes for, the Applicant's Service or product. To determine which Services or products are in the same service or product market as the Applicant's Services or products, IDA will consider all relevant information. This may include determining which other Services or products have a similar function, characteristic or potential customer base as the Applicant's Services or products. IDA may also consider which other services or products buyers would switch to if the prices charged by the Post-Consolidation Entity for the Services or products increase by a small but significant, non-transitory amount.

7.2.1.1.2 Geographic Markets

The relevant geographic market for a Service provided by an Applicant consists of the geographic area in which the Applicant (and other entities that provide substitutable Services) provides Services and any additional geographic locations from which buyers would obtain those services if prices increase by a small but significant, non-transitory amount. In general, the relevant market will consist of all locations within Singapore." 17

12.75 As indicated above, the NetLink Trust (through its Trustee-Manager, CityNet) and OpenNet operate in separate telecommunications markets.

The NetLink Trust – Markets and State of Competition

- 12.76 The NetLink Trust (through its Trustee-Manager, CityNet) operates in the market for access to Layer 0 passive infrastructure in Singapore, namely access to ducts, manholes, COs and ESFs.
- 12.77 CityNet was granted an FBO license by the IDA with specific terms and conditions, including restrictions on services:
 - "3.1 The Licensee <u>shall not offer</u> for sale, sell or otherwise provide <u>retail</u> <u>telecommunication systems and/or services to any End-User</u> without IDA's prior written approval.
 - 3.2 The Licensee <u>shall not offer</u> for sale, sell or otherwise provide <u>wholesale</u> <u>transmission services</u> through the Systems or other networks in Singapore without IDA's prior written approval." (Emphasis added)

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¹⁷ Consolidation Guidelines, s.7.2.1.1

- 12.78 The NetLink Trust (through its Trustee-Manager, CityNet) does not, nor has it sought to, offer Layer 1 dark fibre services in Singapore.
- 12.79 Layer 0 is a passive infrastructure service which provides access to physical ducts, manholes, space at COs and ESFs. FBOs acquire the Layer 0 services to install their own Layer 1 passive infrastructure (e.g. dark fibre, copper) or in the case of COs, to co-locate their own passive or active equipment for the purpose of connecting to Layer 1 dark fibre services.
- 12.80 The Layer 0 service is not substitutable or interchangeable with any other service. There are no other services available in Singapore which offer a similar function, characteristic or potential customer base as the Layer 0 service. Given that there are no substitutes, the service or product market is limited to Layer 0.
- 12.81 The geographic market is national. FBOs in Singapore that require Layer 0 services must acquire them within Singapore. Layer 0 services are provided exclusively on a wholesale basis, for example, CityNet only provides Layer 0 services to FBOs.
- 12.82 In summary, the NetLink Trust (through its Trustee-Manager, CityNet) operates in the market for access to wholesale Layer 0 services in Singapore.
- 12.83 Currently, the market for access to wholesale Layer 0 services in Singapore operates largely on a competitive basis. By way of example:
 - SP Telecommunications ("SPT") specifically entered the telecommunications market to offer access to its nationwide duct infrastructure. In 2001, SPT reported that it had provided some 1,650km of underground ducts for leasing to StarHub¹⁸;
 - In the same year, SPT also project managed network roll-out for new FBOs entering into the Singapore telecommunications market, stating it had signed 3 major contracts worth about \$10 million with telecommunications companies to manage the infrastructure roll-out of their telecommunications networks ¹⁹;
 - In 2000, SingTel was required by the IDA to offer FBOs access to its interlinking ducts and manholes for an interim period of 2 years. At the expiry of

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¹⁸ Singapore Power Annual Report FY2001/2002

¹⁹ Singapore Power Annual Report FY2001/2002

the 2 year period, on 28 September 2002, the IDA determined that the requirement should be removed from the Telecom Competition Code as they were no longer necessary to facilitate competition;

- Other FBOs such as StarHub, M1 and Verizon have deployed Layer 1 dark fibre throughout Singapore using their own network of inter-linking ducts and manholes;
- In 2007, the IDA stated that it had:

"...conducted an extensive review on the matter [of duct access] previously and concluded that ducts with the exception of lead-in ducts, are not bottleneck facilities. Unlike "last-mile" facilities, inter-exchange ducts can be reasonably replicated for the deployment of one's network, and IDA notes that many facilities-based operators ... have done so." 20

- 12.84 The advent of alternative techniques such as horizontal directional drilling, minitrenching, pipe-laying along open drains, using roadside covered drains etc. also support a more competitive market for wholesale Layer 0 ducts and manholes (except lead-in ducts and associated lead-in manholes).
- 12.85 In addition to the competitive environment in relation to access to wholesale Layer 0 services, access to wholesale Layer 0 services provided by the NetLink Trust (through its Trustee-Manager, CityNet) is in any case highly regulated under the CityNet's FBO license and the Telecom Competition Code, as further described in section (h) below.

OpenNet – Markets and State of Competition

12.86 In contrast to the NetLink Trust, OpenNet operates in the market for wholesale Layer 1 dark fibre services in Singapore, which may be divided into sectors involving wholesale Layer 1 residential dark fibre service and wholesale Layer 1 non-residential dark fibre service.

12.87 OpenNet was granted an FBO license by the IDA with specific terms and conditions, including restrictions on services:

Letter from IDA to Office of the United States Trade Representative re: Section 1377 Review of Telecommunications Trade Agreements, 2007, dated 16 January 2007, para 9, page 3

- "4.1 The Licensee <u>shall not</u> offer for sale, sell or otherwise <u>provide retail</u> <u>telecommunication services to any End-User</u> without IDA's prior written approval.
- 4.2 The Licensee <u>shall not</u> offer for sale, sell or otherwise <u>provide wholesale</u> <u>transmission services</u> through the Network or other networks in Singapore without IDA's prior written approval." (Emphasis added)
- 12.88 OpenNet does not, nor has it sought, to offer Layer 0 or Layer 1.5 and above services in Singapore. More importantly, OpenNet is an open access network operator, providing a number of basic Mandated Services to NetCo QPs, including residential and non-residential end-user connections and ancillary services such as co-location and patching services.
- 12.89 Under OpenNet's FBO licence, OpenNet must provide Mandated Services on the terms of its ICO on a non-discriminatory basis to any QP in Singapore.²¹ OpenNet is a Dominant Licensee for the purposes of the Telecom Competition Code with its prices regulated and fixed in its ICO.
- 12.90 Further, the provision of access to co-location space (which is limited to the OpenNet network connections at the 7 COs owned by the NetLink Trust (through its Trustee-Manager, CityNet) and the 2 COs leased by the NetLink Trust (through its Trustee-Manager, CityNet) is regulated under OpenNet's FBO licence and must be offered in accordance with the terms and conditions set out in OpenNet's ICO.
- 12.91 Layer 1 dark fibre is a passive service which provides QPs with access to 'unlit' physical dark fibre. The QP connects their own electronic equipment to the Layer 1 dark fibre in order to 'light-up' the Layer 1 dark fibre and provide a wide variety of services. Layer 1 dark fibre has the following characteristics:
 - High transmission capacity;
 - Passive and physical;
 - Capable of supporting a wide variety of technologies and/or services;
 - Can be used for transmission over short or long distances;

²¹OpenNet FBO license found at www.ida.gov.sg/Policies-and-Regulations/Industry-and-Licensees/Licensing/Framework-and-Guidelines/Facilities-Based-Operator

- Ubiquitous, nationwide coverage of residential and non-residential premises in Singapore; and
- Future-proof.
- 12.92 A QP cannot substitute a Layer 1 dark fibre service with a more refined service or other transmission technology. The alternatives available to a QP for a Layer 1 dark fibre service are:
 - Deploying their own Layer 1 dark fibre;
 - Using other passive wireline infrastructure such as copper, Hybrid-fibre coaxial cable etc.:
 - Using other passive wireless infrastructure such as radio links, mobile networks such as LTE, etc.; and
 - Using other active infrastructure such as Local Leased Circuits ("LLCs").
- 12.93 However, deploying their own Layer 1 dark fibre may not always be feasible and other passive wireline/wireless infrastructure does not possess the same function or characteristics as a Layer 1 dark fibre service and has both distance and capacity constraints. These alternatives are not interchangeable for Layer 1 dark fibre. Similarly, other active infrastructure (such as LLCs) have limitations, for example, in terms of flexibility and are also not interchangeable or substitutes for Layer 1 dark fibre.
- 12.94 There are no or limited substitutes to Layer 1 dark fibre and hence the product market is limited to Layer 1 dark fibre services.
- 12.95 The geographic market is national. QPs in Singapore that require a Layer 1 dark fibre service must acquire it within Singapore. Layer 1 dark fibre services are provided almost exclusively on a wholesale basis, for example, OpenNet only provides Layer 1 dark fibre services to QPs (i.e. FBOs). The wholesale Layer 1 dark fibre services in Singapore may be further divided into the residential and non-residential sectors. This recognises the different availability of competing Layer 1 dark fibre infrastructure throughout Singapore, particularly between residential and non-residential. OpenNet is the only operator with a ubiquitous nationwide Layer 1 dark fibre network covering all residential and non-residential buildings in

Singapore. Other competing operators are geographically limited and/or focus mainly on non-residential buildings.

- 12.96 In summary, OpenNet operates in the market for wholesale Layer 1 dark fibre services in Singapore, which may be divided into sectors involving wholesale Layer 1 residential dark fibre service and wholesale Layer 1 non-residential dark fibre service.
- 12.97 Turning to the competitive state of each sector of the Layer 1 dark fibre market, the wholesale Layer 1 residential dark fibre service sector in Singapore is served only by OpenNet, but on an open-access basis in accordance with the IDA's Next Gen NBN requirements.
- 12.98 The wholesale Layer 1 non-residential dark fibre services sector in Singapore is competitive with a number of FBOs having entered the market and deployed Layer 1 dark fibre to offer Layer 1 dark fibre-based services to business customers. Singapore's small size and compact geography has facilitated network deployment by FBOs. This has resulted in FBOs targeting the larger customers in the Central Business District ("CBD") and business/ industrial/ technology parks. The deployment of Layer 1 dark fibre by various FBOs has been occurring for some 13 years, by way of example:
 - In January 2001, Verizon reported that it had begun construction of the first phase of its metro network in Singapore and was in the process of laying its dark fibre network in the CBD. By 17 December 2001, Verizon reported that it had wired all the buildings in the CBD and had laid enough fibre cable in Singapore to criss-cross the island 251 times at its widest point.²²
 - In its 2005 annual report, StarHub stated that it had installed upwards of 2,000 kilometres of fibre in the CBD area serving 800 commercial buildings as at 30 June 2004.²³ In the CBD, it already serves approximately 800-1,000 buildings. StarHub has continued to deploy dark fibre throughout Singapore.
 - Singapore Mass Rapid Transport Corporation Ltd. has provided communication backbone infrastructure through the leasing of dark fibre and related services.

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Teh Hooi Ling, 'WorldCom Claims Success in S'pore', Business Times, 17 December 2001 (http://it.asia1.com.sg/newsarchive/12/news002 20011217 html)

²³ StarHub 2005 annual report, pages 8 – 9

- In 2009, M1 reported that it had completed the rollout of the fibre core of its backhaul transmission network.²⁴ In 2010, M1 reported that its backhaul transmission network, comprising central and eastern access networks, served to increase its self-provisioning and they had commenced a second phase of expansion that included the new western access network and the deployment of new infrastructure, including additional dark fibre cables.²⁵
- In September 2011, Verizon completed its fibre build in Singapore, greatly increasing its network coverage. This fibre build was a joint project between Verizon and M1.²⁶ Verizon's new fibre-optic ring now extends 160km (100 miles) and significantly increases network coverage for enterprise and large customers.
- 12.99 In addition, various FBOs such as SingTel, StarHub, Verizon, France Telecom, etc. have deployed Layer 1 dark fibre to submarine cable landing stations to meet their own requirements and to offer competitive Layer 1 fibre-based backhaul services to other FBOs.
- 12.100 These developments have facilitated an increase in the competitive dynamics in the wholesale and retail non-residential sector of the Layer 1 dark fibre service market in Singapore.
- 12.101 In addition, OpenNet is designated a Dominant Licensee and in any case is highly regulated under OpenNet's FBO license, the NetCo Interconnection Code²⁷ and the Telecom Competition Code. By way of example, under OpenNet's FBO license:
 - "5.1 The Licensee shall offer the following Basic Mandated Services to Basic Mandated Services Qualifying Persons:
 - (a) Layer 1 Services:
 - (i) between any Connectivity Points within the Network deployed by the Licensee, such as:
 - A) from an MDF in a CO to the 1st TP of a Residential Premise or a Non-Residential Premise;

²⁴ M1 2009 annual report, page 23

²⁵ M1 2010 annual report, page 23

²⁶ Verizon News Center, Verizon Completes Singapore Fibre Build, Increasing Network Coverage and Doubling Capacity, September 2011

²⁷ Code of Practice for Next Generation National Broadband Network NetCo Interconnection

B) from an MDF in a CO to an NBAP TP; C) from an MDF in a CO to an MDF in an MDF Room; D) from an MDF in a CO to an MDF in an Outdoor Cabinet; E) from an MDF in an MDF Room to the 1st TP of a Residential Premise or a Non-Residential Premise; F) from an MDF in an Outdoor Cabinet to the 1st TP of a Residential Premise or a Non-Residential Premise; *G) from an MDF in a CO to an MDF in another CO;* H) from an MDF in an MDF Room to a fibre-to-the-building node at a TER Room/void deck: *from a fibre-to-the-building node to a DP;* J) from an MDF in a CO to an NBAP DP serving an NBAP TP; K) from an NBAP DP to an NBAP TP; and (ii) on such other basis as may be approved by IDA; and (b) any other services that IDA may determine to be Basic Mandated Services. 5.2 The Licensee shall offer the Ancillary Mandated Services to the Ancillary Mandated Services Qualifying Persons including without limitation: (a) Co-location Services; (b) OSS/BSS Connection Services; (c) Patching Services;

- (d) Layer 1 Redundancy; and
- (e) any other services that IDA may determine to be Ancillary Mandated Services.
- 5.3 The Licensee may not offer the Mandated Services to any person other than a Qualifying Person or such other person on such terms and conditions as IDA may require.

6. The ICO

- 6.1 At the Qualifying Person's option, the Licensee shall and shall only offer the Mandated Services to Qualifying Persons:
 - (a) on the terms of the ICO;
 - (b) on the terms of a Customised Agreement negotiated with the Licensee and approved by IDA in accordance with the terms set out in the NetCo Interconnection Code; or
 - (c) on the same terms as an existing Customised Agreement, between the Licensee and a similarly situated Qualifying Person that has been previously approved by IDA in accordance with the terms set out in the NetCo Interconnection Code. For the purposes of this paragraph, a person licensed to provide facilities-based operations, a person licensed to provide services-based operations and a person licensed to provide broadcasting services will not be deemed to be similarly situated.
- 6.2 Failure by the Licensee to specify the prices, terms and conditions of any requirements necessary to ensure end-to-end connectivity to the Network of any Mandated Service shall not affect the Licensee's obligation to provide or fulfil such requirements and the costs of providing or fulfilling such requirements shall be borne by the Licensee unless expressly accounted for in the ICO. Unless otherwise approved by IDA, the Licensee shall not require any additional terms and conditions which the Licensee has not expressly accounted for in the ICO."
- 12.102 The Consolidation will not result in any negative change to market concentration in the wholesale Layer 1 dark fibre services market. At the commencement of Phase 1

of the Consolidation, OpenNet will continue to be a Dominant Licensee and be required to comply with OpenNet's FBO license, the NetCo Interconnection Code and the Telecom Competition Code. OpenNet will continue to provide open and non-discriminatory access to wholesale Layer 1 dark fibre services and ancillary services pursuant to the IDA-approved ICO.

- 12.103 At the commencement of Phase 2 of the Consolidation, the NetLink Trust (through its Trustee-Manager, CityNet) will continue to be a Dominant Licensee and be required to comply with CityNet's expanded FBO license, the NetCo Interconnection Code and the Telecom Competition Code. The NetLink Trust (through its Trustee-Manager, CityNet) will continue to provide open and non-discriminatory access to wholesale Layer 1 dark fibre services and ancillary services pursuant to the IDA-approved ICO.
- 12.104 The Consolidation will not impact upon or alter in any way either the potential for continued competition in relation to wholesale Layer 1 dark fibre services or the IDA's regulatory framework which requires access to be provided to wholesale Layer 1 dark fibre services in the residential and non-residential sectors.

Market Definition – SingTel

- 12.105 The Applicants adopt the IDA's market definitions for the purpose of this Consolidation Application. These markets are set out in **Annexure 2** of this Consolidation Application.
- 12.106 SingTel has a market share of 5% or more in various IDA-defined telecommunications markets within Singapore as also set out in **Annexure 2** of this Consolidation Application.
- 12.107 In most of the IDA-defined telecommunications markets in Singapore the IDA has undertaken a lengthy and rigorous market analysis and determined that SingTel is non-dominant in the relevant markets and does not possess SMP in the relevant markets.
- 12.108 In other telecommunications sectors in Singapore, the IDA has not made any statements as to the likely markets that exist and hence SingTel has not made a market boundary assessment in this Consolidation Application. SingTel notes however that none of these other sectors are affected by the Consolidation and hence it is unnecessary to consider those market boundaries for this Consolidation Application.

12.109 None of these retail and/or wholesale markets are affected by the Consolidation.

(e) The Consolidation Will Not Impact Negatively Any Downstream Telecommunication Markets In Singapore

- 12.110 Many years of progressive liberalisation in the Singapore telecommunications sector, particularly over 13 years of full liberalisation, has facilitated a successful competitive environment for the provision of telecommunications services in Singapore, including for dark fibre services. As shown in **Annexure 2**, the IDA has publicly acknowledged that there is effective competition in many telecommunications markets and/or market segments in Singapore.
- 12.111 The rollout of the Next Gen NBN itself has also resulted in greater competition through a number of new entrants entering the market to supply telecommunication services over dark fibre. Facilities-based and services-based competition has significantly increased with 8 OpCos and 24 RSPs providing fibre-based services over the Next Gen NBN at a wholesale level to FBOs and SBOs and at a retail level to residential and non-residential customers.
- 12.112 Currently, there are more than 380,000²⁸ Next Gen NBN subscribers in Singapore, served by a number of different RSPs.²⁹
- 12.113 Further, there are 53 FBOs and a multitude of local, regional and global SBOs currently licensed to provide voice and data services in Singapore. We would note that under the FBO licence regime, both OpenNet and the NetLink Trust (through its Trustee-Manager, CityNet) are prohibited from engaging in retail telecommunication services without the written approval of the IDA.³⁰
- 12.114 The success of telecommunication markets in Singapore highlights that the industry structure and the IDA's separation and control arrangements in relation to upstream operators are functioning effectively to engender a highly competitive downstream environment.
- 12.115 The Consolidation does not impact the market structure that currently exists in downstream telecommunications markets in Singapore. Consequently, the Consolidation will not have any negative impact upon the number of market

²⁹ www.ida.gov.sg/Infocomm-Landscape/Infrastructure/Wired/For-Consumers/List-of-Service-Providers

²⁸ www.opennet.com.sg/press/record-high-demand-for-fibre-in-june-2013/

³⁰OpenNet FBO licence, clause 4.1 found at at www.ida.gov.sg/Policies-and-Regulations/Industry-and-Licensees/Licensing/Framework-and-Guidelines/Facilities-Based-Operator

participants or the potential for continued competition in those downstream markets.

- 12.116 As discussed above, both the NetLink Trust (through its Trustee-Manager, CityNet) and OpenNet are highly regulated, open access network businesses which operate in separate telecommunications markets in Singapore. This will not change as a result of the Consolidation. Following the Consolidation, the NetLink Trust (through its Trustee-Manager, CityNet) will retain its obligation to provide access to its lead-in ducts and associated lead-in manholes under the RAO. At the commencement of (and throughout) Phase 1 of the Consolidation, OpenNet will retain its obligation to provide wholesale Layer 1 dark fibre services on the terms of its ICO. Accordingly, the ability of SingTel's competitors to access a downstream facility will not be foreclosed in any way as a result of the Consolidation.
- 12.117 Further, the Consolidation is pro-competitive as it will enable better co-ordination and management of the regulated aspects of Layer 1 dark fibre access as it relates to the Layer 0 passive infrastructure, while simultaneously providing separation from the areas where competition exists – at the OpCo and RSP layers.
- **(f)** The Consolidation Involves A Number Of Market Benefits Including The Retention Of IDA's '3 Layer' Industry Structure And Other Efficiencies
- 12.118 As noted above, the Consolidation will likely have a positive effect on the Singapore telecommunications market as it gives rise to the IDA's initial vision for a 3 layer industry structure for the Next Gen NBN and will permit increased efficiencies to the benefit of consumers and the telecommunications market in Singapore more generally.
- 12.119 The IDA's original vision for the composition of the competitive framework for the Next Gen NBN involved 3 distinct industry layers:³¹

"The Next Gen NBN comprises three distinct industry layers:

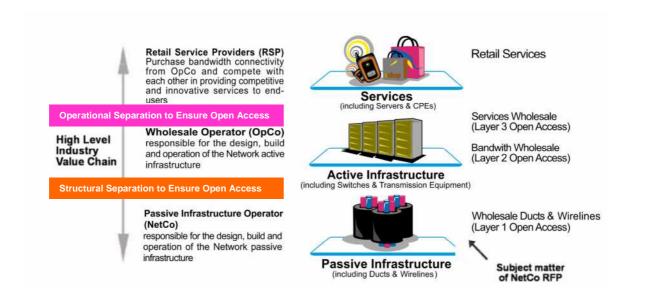
- The Network Company (NetCo) will be responsible for the design, build (a) and operation of the passive infrastructure (such as dark fibre and ducts);
- (b) The Operating Company (OpCo) will commit to offering wholesale network services over the active infrastructure comprising switches and transmission equipment; and

 $^{^{31}\} www.ida.gov.sg/images/content/Infrastructure/nbn/images/pdf/NextGenNBNFACTSHEET.pdf$ Page 55 of 64

- (c) The Retail Service Provider (RSP) layer will sell services to end users and industry, and will be a fully competitive layer, covering markets like Internet access and Voice-over-IP telephony." (emphasis added)
- 12.120 When launching the RFP for the Next Gen NBN OpCo in 2008, the IDA Chairman said that:³²

"The emphasis on separation between the infrastructure layers reflects our view that Singapore will more fully realise the economic benefits of this investment if RSPs are able to obtain wholesale bandwidth connectivity from a Next Gen NBN OpCo at non-discriminatory prices and conditions, and likewise that the NetCo is a neutral player providing passive infrastructure to all. This industry structure should support the development of a vibrant RSP industry and drive significantly more competitive prices to end-users." (emphasis added)

12.121 The IDA's vision of the Next Gen NBN industry structure was depicted in the following figure:



Source: IDA Media Briefing –Launch of Next Generation NBN Network Company (NetCo) RFP 11 December 2007

12.122 By effectively merging Layer 0 and Layer 1 passive infrastructure, such as ducts, manholes, COs and dark fibre into a single NetCo business, the Consolidation is

³² Ms Yong Ying-I, Chairman, Infocomm Development Authority Of Singapore, At The Launch Of The Request-For-Proposal (RFP) For Singapore's Next Generation National Broadband Network (Next Gen NBN) Operating Company on 7 April 2008 at the IDA's Office, www.ida.gov.sg/About%20Us/Newsroom/Speeches/2008/20080407173658.aspx

consistent with the IDA's original vision of 3 distinct industry layers and only one of these 3 layers being at the passive operator level.

12.123 The Consolidation of OpenNet and the NetLink Trust (through its Trustee-Manager, CityNet) will not adversely impact upon the IDA's objective in this regard, but rather it will support and enhance it.

(g) The Consolidation Will Generate Operational Efficiencies And Improve Layer 0 and Layer 1 Deployment Co-Ordination

12.124 For the reasons set out above, the Applicants do not consider that the Consolidation will likely substantially lessen competition in any telecommunications market in Singapore. The Consolidation, however, will enable some efficiencies to be realised due to the increased level of integration between Layer 0 and Layer 1 passive infrastructure that the Consolidation delivers. This integration will serve the public interest by reducing some of the inefficiencies which arise as a result of the current separation of Layer 0 and Layer 1.

12.125 The principal efficiencies which will be realised are:

- improved network fault detection and resolution;
- improved co-ordination and planning of the deployment of the Layer 0 and Layer 1 passive infrastructure of the Next Gen NBN;
- improved operational efficiency and responsiveness with the transfer of the personnel, skills and expertise to the NetLink Trust;
- improved efficiency in maintenance of the Layer 0 and Layer 1 passive infrastructure of the Next Gen NBN; and
- personnel and management efficiency benefits.
- 12.126 Currently, the key passive elements of the Next Gen NBN, Layer 0 ducts and manholes and Layer 1 dark fibre, are separated between 2 separate network businesses, OpenNet and the NetLink Trust (through its Trustee-Manager, CityNet).

- 12.127 The 'chain of command' is particularly complex in the current structure where a fault appears 'somewhere' in the Next Gen NBN at the customer premises, the RSP, the OpCo, OpenNet or the NetLink Trust (through its Trustee-Manager, CityNet). The layers of communication required to ascertain precisely where the fault exists and what remedy is required is reduced when the Layer 1 dark fibre and Layer 0 ducts, manholes and COs are ultimately owned, operated and maintained by the same entity, the NetLink Trust (through its Trustee-Manager, CityNet).
- 12.128 Currently, the planning and deployment of Layer 0 ducts and manholes and Layer 1 dark fibre are undertaken separately. Where the Layer 1 dark fibre and Layer 0 ducts and manholes are owned, operated and maintained by the NetLink Trust, coordination and planning for the deployment Layer 0 ducts and manholes to support the requirements for Layer 1 dark fibre deployment are more efficient. The NetLink Trust (through its Trustee-Manager, CityNet) can ensure that Layer 0 ducts and manholes are available as-and-when needed for the deployment of Layer 1 dark fibre thereby reducing the risk of delay, disruption or a mismatch in Layer 0 ducts and manholes and Layer 1 dark fibre deployment priorities.
- 12.129 With the termination of the OpenNet Agreements and the transfer of the relevant SingTel personnel, skills and expertise to the NetLink Trust, another layer in the 'chain of command' (i.e. the sub-contractor layer) is removed and the NetLink Trust (through its Trustee-Manager, CityNet) will have full visibility and control over Layer 0 and Layer 1 of the Next Gen NBN. Performing the services itself is likely to result in improved operational efficiency and responsiveness.
- 12.130 By undertaking this role itself in Phase 2 of the Consolidation, the NetLink Trust (through its Trustee-Manager, CityNet) will not be reliant on a third party contractor thereby removing the likelihood of disputes on roles, responsibilities and costs that may disrupt its business operations and place it in a better position to manage its own costs.
- 12.131 Currently, the planning, coordination and execution of maintenance work and diversion for Layer 0 ducts and manholes and Layer 1 dark fibre are undertaken separately. The integration in Phase 2 of the Consolidation will reduce the layers of co-ordination required and provide better alignment of the priorities and concerns in respect to both Layer 0 and Layer 1 passive infrastructure to ensure the continued provision of Next Gen NBN services. By way of example, the Consolidation entity will be the single party to co-ordinate with external parties on its requirements and maintenance schedule as necessary to ensure concerns in respect to Layer 0 and Layer1 are addressed. This eliminates any potential for a misalignment of priorities, for example, it will be able to take into consideration the risks of certain activities damaging Layer 0 and/or Layer 1 passive infrastructure

such as where a site contractor proposes to support exposed ducts over the construction site as a temporary cost cutting measure instead of laying temporary ducts and diverting the Layer 1 dark fibre.

12.132 By bringing together both Layer 0 and Layer 1 passive infrastructure there are likely to also be some personnel and management efficiency benefits arising from rationalisation of certain functions, such as corporate functions.

(h) The Consolidation Entity Will Remain A Highly Regulated, Open Access Network Business

- 12.133 Both the NetLink Trust (through its Trustee-Manager, CityNet) and OpenNet are highly regulated by the IDA. The NetLink Trust is a Designated Business Trust. Both CityNet and OpenNet are Designated Telecommunications Licensees, a Public Telecommunications Licensee and designated Dominant Licensees for the purposes of the Telecom Competition Code.
- 12.134 As indicated above, CityNet is designated a Dominant Licensee and is highly regulated under its FBO license and the Telecom Competition Code. As a Dominant Licensee it must offer to provide ESF to FBOs. CityNet's IDA-approved RAO contains the non-discriminatory terms and conditions for licensing of its ESF, namely lead-in ducts and associated lead-in manholes, to FBOs. Further, as a Dominant Licensee under the Telecom Competition Code, CityNet must³³:
 - File a tariff with the IDA and obtain the IDA's written approval prior to offering, or modifying the terms on which it offers its wholesale services;
 - Offer wholesale services at prices, terms and conditions that are just, reasonable and non-discriminatory;
 - Allow any FBO to purchase the wholesale services;
 - Not restrict the ability of another FBO to use the wholesale service as an input into another service; and
 - Not require the FBO to disclose that it is using the NetLink Trust's (through its Trustee-Manager, CityNet) wholesale services as an input.

³³ Telecom Competition Code, s. 4.4

- 12.135 The Consolidation will not alter the extent and scope of the IDA's regulation of the NetLink Trust's (through its Trustee-Manager, CityNet) Layer 0 services. In Phase 1 and Phase 2 of the Consolidation, the NetLink Trust (through its Trustee-Manager, CityNet) will continue to be a Dominant Licensee and continue to be required to provide access to its lead-in ducts and associated lead-in manholes under the IDA-approved RAO and to provide its other wholesale services in accordance with IDA filed and approved tariffs under the Telecom Competition Code.
- 12.136 Similarly, OpenNet is designated a Dominant Licensee and is highly regulated under OpenNet's FBO license, the NetCo Interconnection Code³⁴ and the Telecom Competition Code. By way of example, under OpenNet's FBO license it is required to offer Basic Mandated Services (i.e. Layer 1 dark fibre services) and Ancillary Mandated Services (e.g. Co-location Services at COs, OSS/BSS Connection services etc.)³⁵. The Consolidation will not alter the extent and scope of the IDA's regulation of OpenNet's Layer 1 dark fibre services.
- 12.137 In Phase 1 of the Consolidation, OpenNet will continue to be a Dominant Licensee and be required to comply with OpenNet's FBO license, the NetCo Interconnection Code and the Telecom Competition Code. OpenNet will continue to provide open and non-discriminatory access to wholesale Layer 1 dark fibre services pursuant to the IDA-approved ICO.
- 12.138 In Phase 2 of the Consolidation when the OpenNet assets, business and the relevant personnel are transferred to the NetLink Trust, the NetLink Trust (through its Trustee-Manager, CityNet) will continue to be a Dominant Licensee and required to comply with its expanded FBO license, the NetCo Interconnection Code and the Telecom Competition Code. The NetLink Trust (through its Trustee-Manager, CityNet) will continue to provide open and non-discriminatory access to wholesale Layer 1 dark fibre services pursuant to the IDA-approved ICO.

OpenNet FBO license found at www.ida.gov.sg/Policies-and-Regulations/Industry-and-Licensees/Licensing/Framework-and-Guidelines/Facilities-Based-Operator

³⁴ Code of Practice for Next Generation National Broadband Network NetCo Interconnection

12.139 In summary, in Phase 1 and Phase 2 of the Consolidation, access to Layer 0 and/or Layer 1 dark fibre services from NetLink Trust (through its Trustee-Manager, CityNet) and/or OpenNet will continue to be made available on a highly regulated, open access basis to all QPs.

(i) The Consolidation Entity Will Have A Strong Asset Base And Stable Revenues To Fund Ongoing Layer 0 and Layer 1 Deployment

- 12.140 The NetLink Trust (through its Trustee-Manager, CityNet) owns, operates and maintains Layer 0 ducts, manholes and COs that it acquired for approximately \$1.89 billion. It currently generates steady flow of quality revenue streams from:
 - A duct and manhole services agreement relating to SingTel's existing copper and fibre cables situated within the NetLink Trust ducts and manholes. The fees payable by SingTel under this agreement are approximately S\$20 million per annum. The term of this agreement is 25 years, with an option to renew for a further term of 25 years;
 - A duct and manhole services agreement relating to OpenNet's dark fibre cables situated within the NetLink Trust ducts and manholes. Under this agreement, SingTel pays a fixed charge, as well as a variable charge comprising 70% of the variable charge that SingTel receives from OpenNet³⁶. The fixed charge is estimated to be \$\$5 million and \$\$15 million for the financial years ending 31 March 2012 and 31 March 2013 respectively. With effect from the financial year ending 31 March 2014, the fixed charge is expected to be \$\$20 million per annum. The agreement will continue in effect until 22 April 2034, with an option to renew for a further term of 25 years;
 - Long-term property lease agreements in relation to the lease of space by SingTel in NetLink Trust's 7 COs. The amount payable by SingTel under these agreements is approximately S\$12 million per annum; and
 - Long-term property lease agreements in relation to the lease of space in 2 other COs by CityNet.
- 12.141 At the commencement of Phase 2 of the Consolidation, with the termination of the OpenNet Agreements, the payments (including variable charges) to SingTel will cease. As a result, the Consolidation entity will benefit from an improved cashflow.

OpenNet pays SingTel for the rights to use and access, and for the maintenance of, the ducts, manholes and space in exchange buildings. The fees payable to SingTel comprise a fixed charge, as well as a variable charge calculated by reference to a formula [(75% x OpenNet revenue) - S\$55 million]. The variable charge only applies if the formula results in a positive value. The fixed charges are estimated to be S\$30 million and S\$50 million for the financial years ending 31 March 2012 and 31 March 2013 respectively. With effect from the financial year ending 31 March 2014, the fixed charge is expected to be S\$55 million per annum

With the steady stream of quality revenue from services provided by the NetLink Trust (through its Trustee-Manager, CityNet), the Consolidation entity will have an improved ability to fund the ongoing requirement to deploy Layer 1 dark fibre to new residential and non-residential premises and any additional Layer 0 ducts and manholes to house the Layer 1 dark fibre.

PART 6: CONCLUSION

12.142 The Applicants submit that the Consolidation does not give rise to competition concerns and that the IDA should approve the Consolidation for the reasons described in this Consolidation Application.

13 Confidentiality

Have you indicated all material submitted as part of this Consolidation Application that contains information for which you are requesting confidential treatment and the basis on which such treatment is requested? **YES**

Note: Requests to treat all information as confidential are not acceptable.

14 Certification

The undersigned hereby certify that they have made a diligent effort to fully complete this Consolidation Application and that, to the best of their knowledge, all information contained in this Consolidation Application form and the attachments thereto are current, accurate and complete. The undersigned further certify that they will promptly, fully and accurately respond to any IDA request for supplemental information and that, even in the absence of a request, they will promptly notify IDA of any new or different fact that is reasonably likely to have a material impact on IDA's consideration of this Consolidation Application.

Signature Name:	Signature Name:
Mr Tong Yew Heng	Ms Jacqueline Ong
Title:	Title:
Director	Acting Chief Executive Officer
Company:	Company:
CityNet Infrastructure Management Pte. Ltd(in its capacity as trustee-manager of NetLink Trust)	

Signature Signature Mark Bloch Name: Name: Mr Mark Blake Ms Jeann Low Title: Title: Chief Executive Officer Group Chief Financial Officer Company: Company: OpenNet Pte.Ltd Singapore Telecommunications

Note: All terms used but not otherwise defined in this application form shall bear the same meanings as defined in the Telecom Consolidation and Tender Offer Guidelines.

Trust)

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	IDA Market	Service	Key Competitors	Date
	Definition			Exemption
				Granted
1.	Backhaul	 Backhaul (to SingTel Global Network Connection Centre) 	France TelecomMCI/VerizonReachStarHub	12 June 2009
		 Backhaul with Interface Protection Point-to-Point Backhaul Point-to-Point With Interface Protection Standard Point-to-Point Backhaul 		
2.	Commercial Retail International Telephone Services	 BudgetCall 013 Corporate Switched Telecommunication s Network (CSTN) FaxPlus 012 FaxPlus Connect Hello! Card IDD001 (including voice and data) International Calling Cards International Toll Free Service ISDN International Data Service Operator Assisted Services Overseas Collect Call Overseas Paid 800 Prepaid Callback Service STD020 V019 	 123Com 1World Telecoms Asia Access Telecom AT&T BT Chesterfield China Motion Connecting Communications ETN Singapore Genesys Global Crossing Global Voice Globalcom Information Services Hak Japan IDT Asia Intercall M1 Macquarie MCI/ Verizon 	18 January 2007

	IDA Market	Service	Key Competitors	Date
	Definition			Exemption
				Granted
		Voice VPN	• Nextel	
		 WorldCard 	• NTT	
		WorldConference	• OSMS	
		WorldConference	• Pacnet	
		Multi-Media	• PCCW	
		Conference Service	• Phoenix	
			Communications	
			Pinnacle Telecom	
			• PLDT	
			• Premier	
			Conferencing	
			Premier Global Fax	
			• ShineTown	
			• Skype	
			• Smartcom	
			• Spotnet	
			• Sprint	
			• StarHub	
			 Sunpage 	
			Communications	
			Tele-Access	
			Teleinfo	
			Technology and	
			Services	
			Telekom Malaysia	
			• Telstra	
			TopCom Fax	
			• Tri-cel	
			• Ultimate	
			Communications	
			• Unifone	
			• Victel	
			• WebEx	
			• Win Fax (Servers)	
			Xpedite	
			Zone Telecom	
3.	International	 Acasia ATM 	• AT&T	16 April

	IDA Market	Service	Key Competitors	Date
	Definition			Exemption
				Granted
	Managed Data	Acasia E-VPN	• BT	2005
	Service (National)	Acasia Frame Relay	• C&W	
		Bilateral ATM	Global Crossing	
		• Bilateral Frame	• Infonet/BT	
		Relay	• KDDI	
		 ConnectPlus ATM 	MCI/Verizon	
		ConnectPlus E-Line	• NTT	
		• ConnectPlus E-Line	Orange Business	
		Point-to-Multipoint	Services	
		• ConnectPlus E-	• PCCW	
		VPN	• Sprint	
		• ConnectPlus Frame	StarHub	
		Relay	Telstra	
		• ConnectPlus IP-	• T-Systems	
		VPN	• Vanco	
			• VSNL	
4.	Terrestrial	Acasia IPLC	Asia Netcom	12 June
	International	Bilateral IPLC	• AT&T (US)	2009
	Private Leased	• ConnectPlus IPLC	Belgacom	
	Circuit (IPLC)		(Netherlands)	
			• BT (UK)	
			• C&W (UK)	
			• Equant	
			FLAG Telecom	
			France Telecom	
			Long Distance	
			Global Crossing	
			• KDDI (Japan)	
			• MCI/Verizon (US)	
			• NTT (Japan)	
			• PCCW (Hong Kong)	
			• StarHub	
			Telecom Italia	
			Sparkle	
			Telekom Malaysia	
			• Telstra (Australia)	
			• T-Systems	

	IDA Market Definition	Service	Key Competitors	Date Exemption Granted
			(Germany) • VSNL (India)	
5.	Digital Video Broadcast – IP (DVB-IP) (Regional)	DVB-IP Service	IntelsatLoral CyberstarSpeedCastThaicomVSNL	26 April 2005
6.	International IP Transit (National)	 EXPAN MyNetwork Service Internet Bandwidth Service Prioritised Asia Direct UIAS Standard Universal Internet Access Service (UIAS) STIX UIAS – Burstable Scheme 	 1-Net C&W Infonet Orange Reach Sprint StarHub T-Systems/ Deutsche Telekom UUNET Verizon 	26 April 2005
7.	Leased Satellite Bandwidth (Regional)	Leased Satellite Bandwidth Service	 Asiasat China Direct Broadcast Satellite Company Intelsat Measat SES World Skies Telesat Thaicom 	26 April 2005
8.	Residential Retail International Telephone Services	 IDD001 (including voice and data) STD020 BudgetCall 013 V019 FaxPlus 012 FaxPlus Connect International Calling Cards 	 123Com 1World Telecoms Asia Access Telecom AT&T BT Chesterfield China Motion Connecting 	18 January 2007

IDA Market	Service	Key Competitors	Date
Definition			Exemption
			Granted
	WorldCard	Communications	
	Hello! Card	ETN Singapore	
	• Operator Assisted	• Genesys	
	Services	Global Crossing	
	• Overseas Paid 800	Global Voice	
	• Overseas Collect	Globalcom	
	Call	Information	
	• Prepaid Callback	Services	
	Service	Hak Japan	
		• IDT Asia	
		• Intercall	
		• M1	
		Macquarie	
		MCI/ Verizon	
		 MediaRing 	
		• Nextel	
		• NTT	
		• OSMS	
		• Pacnet	
		• PCCW	
		• Phoenix	
		Communications	
		Pinnacle Telecom	
		• PLDT	
		Premier	
		Conferencing	
		Premier Global Fax	
		• ShineTown	
		• Skype	
		• Smartcom	
		• Spotnet	
		• Sprint	
		• StarHub	
		• Sunpage	
		Communications	
		• Tele-Access	
		Teleinfo	

	IDA Market Definition	Service	Key Competitors Technology and Services	Date Exemption Granted
			 Telekom Malaysia Telstra TopCom Fax Tri-cel Ultimate Communications Unifone Victel WebEx Win Fax (Servers) Xpedite Zone Telecom 	
9.	Satellite Terrestrial International Private Leased Circuit (Regional)	• IPLC service (via satellite)	• Intelsat No Singapore-based competitor	26 April 2005
10.	Satellite TV Downlink (National)	 Permanent Telecast Downlink Service Occasional Telecast Downlink Service 	 Ascent Media ESPN Globecast Liberty Livewire MediaCorp NTL ST Teleport TVNZ 	26 April 2005
11.	Satellite TV Uplink (National)	 Permanent Telecast Uplink Service Occasional Telecast Uplink Service 	 Ascent Media ESPN Globecast Liberty Livewire MediaCorp NTL ST Teleport TVNZ 	26 April 2005
12.	Very Small Aperture Terminal (VSAT) (Regional)	 Global VSAT Maritime VSAT	Agila Apstar	26 April 2005

	IDA Market Definition	Service	Key Competitors	Date Exemption Granted
13.	Wholesale International	• Wholesale Voice Basic	 BT Concert CAT Eutelsat Infocom Intelsat Loral Palapa Reach SES World Skies Thaicom M1 MCI/ Verizon 	26 November
	Telephone Services	Wholesale Voice SilverWholesale Voice Gold	ReachStarHub	2003
14.	Residential Local Telephony Service	DELDigital Voice	M1MyRepublicStarHubViewqwest	N/A
15.	Business Local Telephony Service	DELISDN2ISDN30i-PhoneNetPhoneNet	 AT&T CISCO/IBM LGA M1 Connect Mediaring StarHub SuperInternet 	N/A
16.	Local Leased Circuit	Analogue LLCDigiLinkDigiPlusWebLinkWebPlus	StarHubMCI/ VerizonM1	N/A
17.	Local Managed Data Service	Meg@POPMetroEthernet	AT&TBTMCI/ VerizonNCS	N/A

IDA Market	Service	Key Competitors	Date
Definition			Exemption
			Granted
		Orange Business	
		Services	
		• Pacnet	
		• StarHub	

SINGTEL CONFIDENTIAL

CONFIDENTIAL

OPENNET CONFIDENTIAL

NETLINK TRUST/CITYNET CONFIDENTIAL

CITYNET CONFIDENTIAL

SINGTEL CONFIDENTIAL

OPENNET CONFIDENTIAL