



CONSULTATION DOCUMENT

REVIEW OF OPENNET PTE LTD'S INTERCONNECTION OFFER

13 June 2014

REVIEW OF OPENNET PTE LTD'S ("OPENNET") INTERCONNECTION OFFER ("ICO")

INTRODUCTION

1. The Nationwide Broadband Network ("**NBN**") is of strategic importance to drive Singapore's economic and productivity growth into the next decade. As the Network Company ("**NetCo**") layer is the foundation of the NBN and plays a pivotal role in the implementation of the NBN, IDA places significant emphasis on achieving a successful and effective implementation of the NetCo layer.
2. IDA has been engaging OpenNet on various measures that OpenNet could consider putting in place to improve its Quality of Service ("**QoS**") performance for OpenNet's provisioning of Residential and Non-Residential End-User Connection Services. As part of its rectification measures to improve its QoS, OpenNet has proposed a number of initiatives to reduce the delays and improve on service provisioning standards. The initiatives include:
 - (a) working with the industry to make end-users' transition from one fibre service provider to another as seamless as possible; and
 - (b) revising the current Quota Adjustment Mechanism (e.g., Maximum Quota and Seasonal Slots) for provisioning of services under Schedule 1 and 2 to the ICO to lower the triggering threshold for increase in the Maximum Quota and if triggered, to increase the quantum of the increase as well. In addition, OpenNet has also proposed an alternative approach whereby OpenNet would dimension its resource/provisioning capability based on industry's advance forecasts of expected demand more closely to industry demand.
3. With the abovementioned series of rectification measures that OpenNet is proposing to implement, there will be a need to make corresponding changes to the OpenNet's ICO. OpenNet has also proposed additional changes to its ICO to address other operational issues.

REVIEW OF NETCO ICO

4. OpenNet has since submitted the proposed changes to its ICO (“**Draft Revised ICO**”) to incorporate the changes for IDA’s approval. The contents of the Draft Revised ICO are as follows:

(a) Main Body of the ICO; and

(b) Schedules to the ICO:

- Schedule 1 Residential End-User Connection;
- Schedule 2 Non-Residential End-User Connection;
- Schedule 3 NBAP Connection;
- Schedule 4 CO to CO Connection;
- Schedule 5 CO to Building MDF Room Connection;
- Schedule 6 Building MDF Room to FTTB Node Connection;
- Schedule 7 FTTB Node to DP Connection;
- Schedule 8 Building MDF Room to Residential Premise Connection;
- Schedule 9 Building MDF Room to Non-Residential Premise Connection;
- Schedule 10 CO to NBAP DP Connection;
- Schedule 11 NBAP DP to NBAP TP Connection;
- Schedule 12 Co-location Service;
- Schedule 12B Co-Location Supplementary Cooling Service;
- Schedule 12C Co-Location Space & Service in new Co-Location Room;
- Schedule 14 OSS/BSS Connection & Professional Service;
- Schedule 15 Charges;
- Schedule 18 Dictionary.

A summary of the key proposed changes is tabulated in the enclosed Appendix.

OTHER ISSUES

5. As part of OpenNet's changes to address other operational issues, OpenNet has proposed the following:
 - (a) a process related to how OpenNet would automatically close off unfulfilled orders for Non-Residential End-User Connections after a certain period of time; and
 - (b) a process to look at the provisioning of services to premises that are not found in its system ("**Address Not Found**").

6. In relation to paragraph 5(a), IDA is of the view that the process should be complemented by further tightening the provisioning processes for Non-Residential End-User Connections under the ICO to tackle delays attributed to developers/owners/MCSTs of buildings. Specifically, IDA is considering requiring OpenNet to limit the timeframe ("**Timeframe**") for which it can claim exemption from the applicable Service Level Guarantees ("**SLGs**"), for delays that it attributes to developers/owners/MCSTs of buildings. Under the above proposed mechanism, the additional time taken beyond the Timeframe would be considered as a delay for which OpenNet would be liable for SLGs under its ICO. IDA's preliminary view is that such a Timeframe should be set at five (5) Business Days. In other words, OpenNet has up to fifteen (15) Business Days from the Request Date or five (5) Business Days after the service activation date requested (depending on the specific request) to complete its service provisioning, failing which SLGs shall apply even where the delay is attributed to developers/owners/MCSTs of buildings. IDA is of the view that the proposed Timeframe is reasonable as OpenNet would have a stronger incentive to promptly follow-up with the developers/owners/MCSTs of buildings to resolve delays before they become protracted. Where OpenNet is unable to resolve such delays, OpenNet could escalate these cases to IDA for assistance.

7. On paragraph 5(b), while OpenNet has proposed a process to manage such Address Not Found cases, IDA notes that OpenNet has introduced several changes to the provisioning terms and conditions in its proposed process. Notwithstanding such cases could be handled on an exceptional basis where requests are submitted manually, IDA's view is that the actual provisioning process should be no different from the approach adopted in the ICO. In other words, OpenNet should provide service to such Residential/Non-Residential premises based on the Service Activation Period under the ICO (e.g., 3 or 10 Business Days from the date of request). Where there is insufficient capacity (e.g., due to OpenNet's need to install additional fibre), OpenNet may then take additional time to provision such services, as provided for in its ICO.

REQUEST FOR COMMENTS

8. IDA hereby invites interested parties to submit written comments regarding the Draft Revised ICO.
9. IDA requests that comments be presented in the following format:
 - (a) Description of the respondent and its interest in the proceedings;
 - (b) Summary of the respondent's position;
 - (c) General comments; and
 - (d) Views regarding specific provisions of the Draft Revised ICO.
10. In all comments, respondents should identify the specific provisions of the Draft Revised ICO (by paragraph/section number, where provided) to which comments are made. Where appropriate, respondents may suggest additional or alternative language, provided always that any such suggestions should be accompanied by an explanation of the reason for the proposal. All respondents are requested to keep their comments clear and succinct.
11. IDA also invites interested parties to submit written comments to paragraphs 6 and 7 above.
12. All views and comments should be submitted in writing in soft copy (preferably in Microsoft Word format) to reach IDA by **12 noon, 14 July 2014**.

For each set of comments, respondents are required to include their personal/company particulars as well as their correspondence address. Views and comments should be addressed to:

Ms Aileen Chia
Deputy Director-General (Telecoms & Post)
Infocomm Development Authority of Singapore
10 Pasir Panjang Road
#10-01 Mapletree Business City
Singapore 117438

Please submit soft copies via email to: IDA_Consultation@ida.gov.sg.

13. IDA reserves the right to make public all or parts of any written submissions made in response to this consultation, and to disclose the identity of the respondent. Any part of the submission which the respondent considers is commercially sensitive must be clearly marked and placed as a separate annex to the comments raised. IDA will take this into consideration when disclosing the information submitted.

OPENNET-INITIATED CHANGES

S/N	Area	OpenNet-Initiated Change
1	Demand-Based Service Provisioning Approach	<p><u>Enhancements to Current Approach</u></p> <p>OpenNet has proposed changes to:</p> <ul style="list-style-type: none"> (a) adjust the quota utilisation threshold percentage such that OpenNet shall increase its Maximum Quota if the utilisation percentage in each review period is greater than or equal to 90%; and (b) increase the quantum of the Maximum Quota, whenever it is triggered in accordance to (a) above after each review period, to at least 115% (i.e. 1.15 times) of the prevailing orders (including orders received during IT Shows) received during the review period. <p><u>Alternative Approach</u></p> <p>As an alternative to the existing Demand-Based Service Provisioning Approach, OpenNet has proposed to replace the existing Quota Adjustment Mechanism (e.g. Maximum Quota and Seasonal Slots) for provisioning of services under Schedules 1 and 2 of the ICO with one that is based solely on a “committed daily forecast” mechanism.</p> <p>In summary, the “committed daily forecast” mechanism comprises the following non-exhaustive list:</p> <ul style="list-style-type: none"> (a) Requesting Licensees will submit regular demand forecasts (for Residential and Non-Residential End-User Connection services) on a rolling basis to OpenNet. OpenNet will dimension its manpower resources based on such demand forecasts received from Requesting Licensees;

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		<p>(b) Requesting Licensees will commit to using 90% of the daily demand forecasts, failing which a commitment fee will apply; and</p> <p>(c) Adjustments (increase/decrease) shall not exceed 5% of previous demand forecast.</p>																																																				
2	Urgent/Unscheduled Diversion and Maintenance Activities	<p>OpenNet proposes to amend the ICO to include the notification process for urgent and unscheduled service interruptions. In addition, OpenNet proposes to amend the current notification period for scheduled service interruptions to at least two weeks (from the current timeframe of at least one month).</p> <p>The current notification period of at least one month is not operationally feasible, as there will be scheduled service interruptions necessitated by site works that are performed by third parties, which would only notify OpenNet at a late stage of their project schedule or require network diversion on short notice due to unforeseen site conditions.</p> <p>To illustrate the extent of the issue, out of the 533 network diversion requests received in 2013, there were 258 requests which OpenNet was given less than one month to react due to the late notifications from the requesting party. A summary of these cases is tabulated below:</p> <table border="1" data-bbox="618 1018 2040 1396"> <thead> <tr> <th data-bbox="618 1018 846 1121" rowspan="2">Notification Period</th> <th colspan="7" data-bbox="846 1018 2040 1050">Reason for Network Diversion</th> <th data-bbox="2040 1018 2051 1121" rowspan="2">Total</th> </tr> <tr> <th data-bbox="846 1050 1039 1121">Cab Demolition</th> <th data-bbox="1039 1050 1232 1121">FDH / FTB Relocation</th> <th data-bbox="1232 1050 1375 1121">Lead-in Pipe</th> <th data-bbox="1375 1050 1509 1121">Agency A</th> <th data-bbox="1509 1050 1659 1121">Agency B</th> <th data-bbox="1659 1050 1809 1121">Agency C</th> <th data-bbox="1809 1050 1935 1121">Others</th> </tr> </thead> <tbody> <tr> <td data-bbox="618 1121 846 1190">Less than 30 days</td> <td data-bbox="846 1121 1039 1190">17</td> <td data-bbox="1039 1121 1232 1190">3</td> <td data-bbox="1232 1121 1375 1190">1</td> <td data-bbox="1375 1121 1509 1190">12</td> <td data-bbox="1509 1121 1659 1190">129</td> <td data-bbox="1659 1121 1809 1190">28</td> <td data-bbox="1809 1121 1935 1190">2</td> <td data-bbox="1935 1121 2040 1190">192</td> </tr> <tr> <td data-bbox="618 1190 846 1259">Less than 21 days</td> <td data-bbox="846 1190 1039 1259">5</td> <td data-bbox="1039 1190 1232 1259">2</td> <td data-bbox="1232 1190 1375 1259">1</td> <td data-bbox="1375 1190 1509 1259">1</td> <td data-bbox="1509 1190 1659 1259">20</td> <td data-bbox="1659 1190 1809 1259">7</td> <td data-bbox="1809 1190 1935 1259">0</td> <td data-bbox="1935 1190 2040 1259">36</td> </tr> <tr> <td data-bbox="618 1259 846 1327">Less than 14 days</td> <td data-bbox="846 1259 1039 1327">5</td> <td data-bbox="1039 1259 1232 1327">2</td> <td data-bbox="1232 1259 1375 1327">1</td> <td data-bbox="1375 1259 1509 1327">1</td> <td data-bbox="1509 1259 1659 1327">8</td> <td data-bbox="1659 1259 1809 1327">5</td> <td data-bbox="1809 1259 1935 1327">0</td> <td data-bbox="1935 1259 2040 1327">22</td> </tr> <tr> <td data-bbox="618 1327 846 1396">Less than 7 days</td> <td data-bbox="846 1327 1039 1396">4</td> <td data-bbox="1039 1327 1232 1396">0</td> <td data-bbox="1232 1327 1375 1396">0</td> <td data-bbox="1375 1327 1509 1396">1</td> <td data-bbox="1509 1327 1659 1396">2</td> <td data-bbox="1659 1327 1809 1396">1</td> <td data-bbox="1809 1327 1935 1396">0</td> <td data-bbox="1935 1327 2040 1396">8</td> </tr> </tbody> </table>	Notification Period	Reason for Network Diversion							Total	Cab Demolition	FDH / FTB Relocation	Lead-in Pipe	Agency A	Agency B	Agency C	Others	Less than 30 days	17	3	1	12	129	28	2	192	Less than 21 days	5	2	1	1	20	7	0	36	Less than 14 days	5	2	1	1	8	5	0	22	Less than 7 days	4	0	0	1	2	1	0	8
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		<p>As illustrated above, the majority of the network diversions with notification period of less than one month was due to the initiatives and works required by different public agencies and demolition of cabinets.</p> <p>According to these third parties, it is not possible to provide a notification period of at least one month for their works due to challenging site conditions and external factors that require the network diversion to be carried out within a shorter timeframe. OpenNet proposes to reduce the notification period to two weeks.</p> <p>Further, as a result of a change in circumstances, the requesting party may have to allocate more time to downstream activities. This in turn necessitates the network diversion to be completed earlier than the original scheduled date.</p> <p>There have also been instances whereby network diversions had to be carried out immediately due to deteriorating site conditions; any further delay would result in service disruptions to Requesting Licensees and end-users (for example fibre cable breakage due to shifting ground condition).</p>
3	Manual Handling Process for “Address Not Found” Cases (Schedules 1 & 2)	OpenNet proposes to modify the ICO to include the manual process for service provisioning designed for “Address Not Found” cases. This is the same service provisioning process that Requesting Licensees have been advised to adhere to when they place orders for premises classified as “Address Not Found” cases.
4	Reclassification of Premises (Schedules 1 & 2)	<p>OpenNet proposes to amend relevant sections of the ICO to align with current system implementation. In addition, OpenNet proposes to clarify that only telecommunication bills for fixed network services will be accepted for consideration as documentary evidence for change of premise type.</p> <p>OpenNet also proposes to replace the documentary evidence “Change of address as indicated in the National Registration Identity Card (NRIC)”, under Clause 4.3(f) of Schedule 2, with</p>

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		<p>“Business/Company Registration Certificate” as the latter is more apt in the context of the Non-Residential End-User Connection service.</p> <p>Currently, the ICO requires the Requesting Licensee to maintain at least one of the documentary evidence listed under Clause 4.3 (of Schedule 1 and Schedule 2).</p> <p>Since the introduction of the premise reclassification service, OpenNet has encountered several instances whereby the Requesting Licensee was only able to produce one documentary evidence (which was provided by the end-user at the Requesting Licensee’s request). However the sole piece of evidence in the Requesting Licensee’s possession was not clear in affirming the actual usage of the end-user’s premise (i.e. residential or non-residential).</p> <p>For example, OpenNet had received a copy of end-user’s NRIC indicating the place of residence with a unit address. However the unit was a shophouse. The nature of use of the premise was thus not clear from the information provided.</p> <p>To minimise the occurrence of insufficient or inappropriate documentary evidence from Requesting Licensees, OpenNet proposes to amend the ICO to require that Requesting Licensees obtain and keep a record of at least <u>two</u> documentary evidences as proof of change of premise type from the end-user.</p>
5	Amendments to Annex 14A-1 – OSS/BSS Form	OpenNet proposes to amend Annex 14A-1 of Schedule 14 to require the Requesting Licensee to specifically indicate its required mode of access to OpenNet’s OSS/BSS, i.e. whether to the staging or production environment.
6	NBAP Connection that resides within Non-Residential Building (Schedule	IDA had previously requested that OpenNet allow the use of DPs installed for the Non-Residential End-User Connection service to serve NBAP Connections deployed within the same building. OpenNet has proposed an amendment to Schedule 3 to make clear this design parameter.

S/N	Area	OpenNet-Initiated Change
	3)	
7	Amendments to Physical Access Procedures (Schedules 12 & 12C)	<p>OpenNet proposes to amend the Physical Access Procedures set out in Schedule 12 and Schedule 12C, to incorporate the updated house rules imposed by the building management of the exchanges within which OpenNet’s Central Offices are located.</p> <p>In addition, OpenNet has corrected the typographical error on the number of rack space available in Ayer Rajah Central Office, under Annex 12B-1 of Schedule 12C.</p>
8	Delay in Service Provisioning Attributable to Third Party	<p>OpenNet proposes to amend the ICO to include a non-exhaustive list of circumstances for which the delay in service provisioning is attributable to third parties, and therefore Service Level Guarantee will not apply.</p> <p>In addition, there have been instances whereby orders could not be completed due to non-standard requirements imposed by third parties such as building management, MCST or end-users. Examples include end-user’s requirement for non-standard installation method and this in turn requires approval from building management and/or MCST; missing lead-in pipe(s) under end-user’s responsibility but which end-user did not agree to take further action; building management’s refusal to comply with work safety requirements imposed by relevant government agencies; building management requiring end-user to pay for access panel-related cost but end-user refuses or delays its decision/response to building management.</p> <p>OpenNet proposes that such delayed orders be rejected and removed from the OpenNet Platform, if the Requesting Licensee does not advise OpenNet of its decision within two months. This will release system, network and operational resources to attend to other orders. Notwithstanding this, Requesting Licensees can submit a new order to OpenNet after the cause of delay has been resolved.</p>
9	Enhancements to Fibre Takeover	OpenNet proposes to enhance the Fibre Takeover Process to require the use of this process for all ‘churn’ cases, i.e. where end-users switch service providers and this in turn requires a change of

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	Process (Schedule 1)	<p>OpCo.</p> <p>Key enhancements include:</p> <ul style="list-style-type: none"> (a) an improved end-user experience through a reduction in service downtime to about 10 to 15 minutes within an one-hour timeslot during service cutover from the outgoing OpCo to the incoming OpCo; (b) a streamlined process empowering end-users to authorise service cutover from the outgoing RSP and/or OpCo to the incoming RSP and/or OpCo; and (c) integration with an industry fibre service switching framework agreement to be established amongst the RSPs and/or OpCos.
10	Main Body	<p>To facilitate OpenNet’s assessment of the Notification of Acceptance of ICO, OpenNet proposes to require the following additional documents from Requesting Licensees:</p> <ul style="list-style-type: none"> (a) Requesting Licensee’s Certification of Business Registration issued by ACRA; (b) Requesting Licensee’s Comprehensive Business Profile issued by ACRA; and (c) Requesting Licensee’s latest audited financial statements. <p>Currently, Requesting Licensees are required to provide the following supporting documents when they submit their Notification of Acceptance of ICO:</p> <ul style="list-style-type: none"> (d) evidence of the insurance required under Clause 17 of the ICO; (e) banker’s guarantee or security deposit (at the Requesting Licensee’s option) of either \$10,000 or \$30,000 depending on the Requesting Licensee’s estimated initial Monthly Recurring Charge; and (f) evidence of the type of telecommunications licence or broadcasting licence held by the Requesting Licensee. <p>These are inadequate for OpenNet to assess the financial health of the Requesting Licensees, as they do not provide sufficient information regarding the financial performance and/or credit standing of the Requesting Licensees.</p>

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		In addition, OpenNet has made editorial changes to reflect the dates of approval by IDA in respect of the various revisions to the ICO.
11	Cancellation Charge under Relocation Service of Non-Residential End-User Connection to Another Address (Schedule 15)	OpenNet proposes to amend Schedule 15 to align the drafting for the Cancellation Charge in respect of the Relocation Service under Schedule 2 with similar services in the ICO.
12	Report on Utilisation or Activation Status of Fibre Connections Provisioned by OpenNet/ Release of Fibre Resources by Requesting Licensees Upon Termination of Use by RSP/End-Users	<p>OpenNet has encountered a number of cases whereby Requesting Licensees were holding on to fibre resources on the NGNBN despite end-users having terminated their use of the fibre connections provisioned by OpenNet. This has led to undue service provisioning delay and resource wastage, as end-users were unable to utilise the fibre connections readily provisioned to their premises for the services of other Requesting Licensees/RSPs.</p> <p>OpenNet proposes to amend the ICO to require Requesting Licensees to promptly terminate their use of fibre connections (including end-user connections) provisioned by OpenNet, once end-users or RSPs terminate their services with Requesting Licensees that utilise such fibre connections.</p>
13	SAP Rebate (Schedules 1 & 2)	OpenNet has proposed changes to its SAP rebate mechanism for Residential End-User Connection services and Non-Residential End-User Connection services to increase the rebate cap.