

21 July 2014

Ms Aileen Chia
Deputy General Director (Telecoms & Post)
Infocomm Development Authority of Singapore
10 Pasir Panjang Road
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Singapore 117438

Dear Ms Chia,

**SUBMISSION ON THE REVIEW OF OPENNET PTE LTD'S
INTERCONNECTION OFFER**

Introduction

Singapore Telecommunications Ltd (**SingTel**) is pleased to respond to the Info-communications Development Authority of Singapore (**IDA**) request for submissions in respect of OpenNet Pte Ltd (**OpenNet**) Interconnection Offer (**ICO**) set out in the consultation paper issued by the IDA on 13 June 2014 (**Consultation Paper**).

SingTel and its affiliates have a comprehensive portfolio of services that include voice and data services over a variety of platforms including the Nationwide Broadband Network (**NBN**). SingTel and its affiliates provide services to both corporate and residential customers across Singapore.

As a leading provider of telecommunications services and a leading proponent of innovation and competition, the SingTel group has a strong interest in the effective operation of the NetCo layer of NBN.

SingTel's submission in response to the Consultation Paper is structured as follows:

- Introduction

- Executive Summary
- Main Submissions
- Attachment 1 – Table of Comments on Specific Clauses of the ICO
- Attachment 2 – Interaction Diagrams of SingTel’s Preferred FTO Process.

Where terms used in this submission are defined in the ICO, they have the same meaning where used in the submission.

Executive Summary

In summary, SingTel submits that OpenNet’s proposals regarding:

- enhancements to its current demand based service provisioning model are welcome, but OpenNet’s alternative long-term approach is impractical and SingTel has proposed alternative improvements to the current model as described below;
- some refinement of the current notification processes and timeframes for urgent/unscheduled diversion and maintenance activities may be warranted as described below;
- manual handling processes for “address not found” cases could be largely addressed by an obligation on OpenNet to update the OpenNet platform within a mandatory timeframe to include addresses which Requesting Licensees (RLs) notify as “not found”;
- reclassification of Residential and Non-Residential Premises has some merit but requires refinement;
- responsibility for delays in service provisioning due to third parties should be accepted, but subject to some oversight and escalation mechanisms;
- a fibre takeover process is necessary and welcomed, however, the process as proposed requires some amendment to be workable, as described in some detail below; and

- termination and hand-back processes for fibre connections address an issue which requires attention, but the processes create impractical burdens on the RL and should be replaced with alternative processes described below.

In addition to the main body of this submission, SingTel has made detailed comments in relation to specific clauses in the ICO, which it considers need to be revised, in Attachment 1 of this submission.

SingTel notes that a number of OpenNet's proposed amendments to its ICO include the same or very similar changes in multiple Schedules. In those circumstances, SingTel has commented on the change in the context of the first, or most relevant Schedule. Unless SingTel has stated otherwise, its comments in relation to a specific Schedule apply to equivalent clauses in other Schedules of the ICO.

Main Submissions

1. Demand-Based Service Provisioning Approach

Enhancements to Current Approach

- 1.1 SingTel welcomes the proposed changes in clauses 5.1 and 5.2 on page 16 of Schedule 1 of the OpenNet ICO, to:
 - (i) decrease the utilisation threshold at which OpenNet will increase its daily maximum quota of end-user connections; and
 - (ii) increase the quantum by which the daily maximum quota for end-user connections will be increased when OpenNet reaches the utilisation threshold.
- 1.2 However, OpenNet has proposed to move from a mandatory seasonal slot increase for connections before major industry events to an optional slot increase to be offered at OpenNet's election in clause 5.2(ii) of Schedule 1. Seasonal demand at the time of the major industry events listed in the ICO is a known requirement, and OpenNet should commit to providing additional slots ahead of these events.

Alternative Approach

- 1.3 OpenNet has also proposed a new long-term forecast-based approach to end-user service connections in new clauses 5.1 and 5.2 at pages 14–16 of Schedule 1 of the OpenNet ICO. SingTel does not agree with the alternative approach as proposed by OpenNet.
- 1.4 In particular, the ICO should not:
- (i) require daily forecasts from RLs 3-6 months before a given period (Forecasted Period);
 - (ii) restrict monthly variations to forecasts between month 6 and month 3 before the Forecasted Period to 5% of the daily forecasts; or
 - (iii) penalise RLs for 3 month old forecasts which turn out not to be accurate within a 10% margin.
- 1.5 It is impractical for RLs to forecast service connection requests with reasonable accuracy on a monthly basis; let alone provide daily committed forecast three months before a Forecasted Period or daily committed forecasts with a restricted margin of change 6 months before a Forecasted Period. The proposed requirement for a committed daily forecast would therefore be of no practical utility and impose burdens and penalties on RLs without any corresponding benefit for end-users.
- 1.6 The current process provides OpenNet with both the safety of a maximum quota of connections and a mechanism to increase or decrease that quota over time depending on fluctuations in service connection demand. This process should be maintained. If OpenNet requires assistance from RLs to fine-tune OpenNet's changes to the Maximum Quota, SingTel submits that:
- (i) RLs provide forecasts on a best efforts, non-committed, quarterly basis with forecasts due at the end of the quarter preceding the quarter to which the forecast pertains;
 - (ii) RLs connection requests should not be restricted by reference to their best-efforts forecasts; and

- (iii) RLs should not be penalised for variations between their best-efforts forecasts and the number of connections ultimately required.

2. Urgent/Unscheduled Diversion and Maintenance Activities

2.1 In clauses 9.5 and 9.6 of Schedule 1, OpenNet has proposed three changes to its service interruption processes:

- (i) changing the current one month notice period for planned service interruptions to a two week notice period;
- (ii) introducing a 24 hour notice period for variations to notified planned service interruptions; and
- (iii) introducing a category of 'urgent service interruption', including planned service interruptions for which circumstances have changed, for which OpenNet would provide only such notice as 'practicable' which may include notice after the fact of the interruption.

2.2 SingTel comments on each of these proposals below.

Two week notice for planned service interruptions

2.3 SingTel submits that at least 1 months' advance notice for scheduled service interruptions is necessary to allow RLs and RSPs to update their systems and service records, inform end-users of interruptions and make and implement service continuity plans where warranted. For these reasons, OpenNet should continue to provide 1 months' notice of scheduled service interruptions.

2.4 Service interruptions which OpenNet needs to carry out on shorter notice can be managed in accordance with the alternative processes discussed below.

Postponements of planned service interruptions

2.5 After an interruption is scheduled, if OpenNet is prevented from carrying out works due to circumstances outside its reasonable control, an interruption could be postponed by OpenNet giving two weeks' notice. The ICO should not be amended in accordance with OpenNet's proposal to give RLs only 24 hours' notice of a change to a scheduled interruption as that proposal is impractical. For the reasons

set out above, such a period would not give RSPs enough notice to avoid end-user disruptions and inconvenience.

Urgent service interruptions

- 2.6 SingTel accepts that there may be exceptional circumstances in which OpenNet needs to carry out urgent service interruptions to avoid imminent damage to facilities and carry out rectification works immediately. However, this should be a strictly limited set of circumstances and should not normally include postponed scheduled service interruptions.
- 2.7 To ensure that the urgent service interruption processes are used only when strictly necessary, the OpenNet ICO should include:
- (i) a clear description of the circumstances that would justify an urgent service interruption (e.g. imminent damage to facilities which could not be avoided in any other way despite OpenNet's best efforts);
 - (ii) a mandatory service interruption window scheduled at a time to cause least inconvenience for end-users; and
 - (iii) a maximum interruption period to minimize disruption for end-users.

3. Manual Handling Process for "Address Not Found" Cases

- 3.1 OpenNet has proposed a codification in the ICO of its manual handling process for "address not found" cases in clause 4A of Schedule 1. These situations are exceptional and should be managed informally in the first instance on an exceptions basis, as they are currently.
- 3.2 However, at the ICO level, a formal process for managing addresses not found on the OpenNet Platform must include the following general principles:
- (i) OpenNet must resolve inaccuracies in its systems expeditiously; and
 - (ii) OpenNet must provision the new connection request in accordance with existing processes once OpenNet has updated the missing address to the OpenNet Platform.

OpenNet Platform correction

- 3.3 OpenNet should respond to an RL's missing address notification within three business days as OpenNet has proposed, but it should also update the OpenNet Platform within that time if the missing address notification is valid. This approach reflects the process and timeframes for correcting errors in Mandated Service Information under clause 5.12(b) of Schedule 1.

Connection timeframe for missing addresses

- 3.4 SingTel does not consider that 40 business days are necessary to connect a premises once it is notified of a missing address. The 40 day window is only required if OpenNet has insufficient capacity in a particular location to meet the demand of end-users. Such a long lead time should not automatically apply where an address is not found in the OpenNet Platform. SingTel agrees with the IDA's proposed approach to new connections for missing addresses as set out in paragraph 7 of the Consultation Paper: OpenNet's proposed clauses 4A.2 to 4A.5 should be replaced with an obligation that RLs and OpenNet both manage a new connection request in accordance with existing processes once OpenNet has added a missing address to the OpenNet Platform in accordance with the mandatory timeframe proposed above.
- 3.5 When a connection relates to a new building in particular, OpenNet should deploy its facilities and network to the new building before the building is issued with a Temporary Occupation Permit (TOP) in order to ensure that OpenNet complies with its universal service obligation. OpenNet participates in the state Telecommunication Facility Co-ordination Committee (TFCC) and will have an opportunity to plan necessary works well in advance of any new building developments. End-users who plan to move into a new TOP building cannot and will not wait for 40 (+3) business days for a connection after requesting a new service. In general, licensees with a universal service obligation start deployment into new buildings as early as six months prior to the intended TOP date.

4. Reclassification of Premises

- 4.1 In clause 4.3 of Schedule 1, OpenNet has proposed a number of changes to the manner in which it reclassifies premises between the 'Residential' and 'Non-Residential' categories. SingTel does not have any issue with OpenNet's proposal that RLs must provide two items of documentary evidence when requesting

premises reclassification or OpenNet's changes to the list of acceptable documentary evidence. However, SingTel considers that the majority of OpenNet's remaining proposals can be amended to improve end-user outcomes as discussed below.

- 4.2 First, OpenNet proposes to reject a residential premises reclassification request if there is an active Non-Residential End User Connection in place at the time that the reclassification request is submitted (and vice versa). This would likely inconvenience end users without a corresponding policy benefit. If an end-user provides substantive evidence warranting a premises reclassification, as set out in clause 4.3 of Schedule 1 or Schedule 2 (as applicable), OpenNet should reclassify the premises irrespective of what existing services may be in place.
- 4.3 Second, OpenNet proposes that it should have a right to conduct site surveys and determine that a proposed Residential premises "is not normally used for residential purposes" (and vice versa) in clause 4.3 of Schedule 1 and Schedule 2 (respectively). The basis on which OpenNet determines whether the building is "used for residential purposes" should be defined in the ICO. SingTel proposes that a premise should only be classified as a Residential Premises if it is "designed, adapted or used for human habitation of a residential nature" and otherwise it should be classified as Non-Residential. Where there is a dispute with respect to the use of a premise, the classification used by the IRAS should be conclusive evidence of the use of the premises. Notwithstanding the general classification however, premises such as SLA properties may need to be considered separately. Including general standards in the ICO which are objective, and consequently applying them in site surveys, will provide necessary guidance to allow RLs to make an informed decision about whether to submit a reclassification request and help to unnecessary delays for end-users.

5. Amendments to Annex 14A-1 – OSS/BSS Form

- 5.1 SingTel does not have any comment regarding OpenNet's proposed amendments to Annex 14A-1 of the ICO, OpenNet's OSS/BSS connection form.

6. NBAP Connection that resides within Non-Residential Building

- 6.1 SingTel does not have any comment regarding OpenNet's proposed amendments to Schedule 3 to allow the use of distribution points installed for Non-Residential End

User Connections for the purpose of serving Non-Building Access Point connections deployed within the same building.

7. Amendments to Physical Access Procedures

7.1 SingTel does not have any comment regarding OpenNet's proposed amendments to Schedule 12 to reflect the house rules of building management at exchanges.

8. Delay in Service Provisioning Attributed to Third Party

8.1 In clause 2.6 of Schedule 1, and particularly in clause 2.6(1), OpenNet has proposed a broad and non-exhaustive exemption from SLGs where a connection cannot be completed due to the action or inaction of a third party outside OpenNet's reasonable control. In paragraph 6 of the Consultation Paper, the IDA proposes that OpenNet would only receive a limited extension of five business days from the requested service activation date in such circumstances. After that time SLGs would apply regardless of the reason for delay.

8.2 SingTel agrees with OpenNet that OpenNet should not be responsible or penalised for bona fide delays caused by MCSTs/developers/owners. SingTel also supports the IDA's proposal a mandatory timeframe for OpenNet to attempt to resolve delays. However, at the end of that timeframe, SingTel submits that OpenNet should not be penalised for a matter outside its control, but should rather escalate the unresolved issue to the IDA for assistance. This is a mechanism that the IDA discusses in the Consultation Paper as a secondary step, but SingTel submits it should be the primary step if OpenNet is not able to resolve a third party delay.

9. Enhancements to Fibre Takeover

Background

9.1 SingTel supports amending the fibre takeover (FTO) process in clause 20 of Schedule 1 of the ICO in order to allow end-users to transition from one RSP to another as efficiently and seamlessly as possible. An efficient FTO process enhances competition in the fibre retail market, furthers the objectives of the NBN and ultimately benefits the interests of end-users.

9.2 While SingTel supports the intentions behind OpenNet's proposed changes to the FTO process, it considers that OpenNet's specific proposals will not achieve the

outcomes it intends. SingTel instead proposes an alternative model that is better suited to allowing end-users to effectively transition between RSPs and that better facilitates the objectives of the NBN.

Summary of SingTel's preferred approach to the FTO process

9.3 In Figures A to E of Attachment 2, SingTel sets out its preferred model for the FTO process through a series of interaction diagrams that show the key steps in the FTO process, including:

- (i) the normal (successful) FTO process – Figure A in Attachment 2;
- (ii) the process where an FTO request is rejected by the Losing RL or Losing RSP – Figure B in Attachment 2;
- (iii) the process where an FTO request is unsuccessful on technical grounds – Figure C in Attachment 2;
- (iv) the process where the end-user abandons the FTO process after being informed of the relevant terms and conditions – Figure D in Attachment 2; and
- (v) the process where a Layer 1 FTO is not required because the Gaining RSP and the Losing RSP are contracted to the same RL, i.e. a layer 2 churn – Figure E in Attachment 2.

9.4 SingTel agrees with a number of aspects of OpenNet's proposal and incorporates them into the proposal described below, including the following:

- (i) requiring the Gaining RSP to make the FTO request using the OpenNet Platform;
- (ii) a timeframe of two business days for the Losing RL or Losing RSP to express any objections the Gaining RSP's request (though SingTel proposes that the ICO should make it clear that if no objections are raised by the Losing RL or Losing RSP, OpenNet should undertake FTO works on the third business day after the FTO request was made); and

- (iii) deemed approval of an FTO request if the Losing RL or Losing RSP do not respond to the request within the required timeframe.

9.5 SingTel believes that the above elements of OpenNet's proposal facilitate a smoother and more efficient FTO process, which is in the interests of end-users.

9.6 SingTel proposes the following amendments to the FTO process:

- (i) FTO requests made by the Gaining RSP should be simultaneously conveyed to the Gaining RL, OpenNet, the Losing RL and the Losing RSP via the OpenNet Platform;
- (ii) a Losing RL should only be allowed to reject an FTO request if it is providing services to an RSP at the end-user premises other than the Losing RSP;
- (iii) a Losing RSP should be allowed to reject an FTO request if it is providing services at a relevant premises to an end-user other than the end-user for whom the FTO request has been made and the provision of such service requires the use of the NBN fibre which is the subject of the FTO process;
- (iv) a Losing RSP should be allowed to reject an FTO request if it is providing other fibre services at a relevant premises using the NBN fibre which is the subject of the FTO process but not because it is providing other bundled non-fibre services, such as mobile services;
- (v) OpenNet should *not* automatically convert rejected FTO requests into requests for new connections;
- (vi) OpenNet's provisioning and notification obligations should be clarified and expressed in greater detail;
- (vii) the FTO process in the ICO should include an escalation process to manage failed FTO requests; and
- (viii) all obligations on RSPs should be implemented through back-to-back (pass-through) arrangements with RLs rather than through direct obligations in the ICO or via an industry-wide framework agreement.

9.7 These amendments are explained in greater detail below.

FTO requests made by the Gaining RSP should be simultaneously conveyed to the Gaining RL, OpenNet, the Losing RL and the Losing RSP

9.8 Under OpenNet's proposal, the Gaining RSP makes an FTO request to OpenNet and OpenNet must inform the Losing RL of the request within one business day. The Losing RL must then communicate the request to the Losing RSP.

9.9 This process can be made more efficient by requiring that FTO requests made by the Gaining RSP through the OpenNet Platform be transmitted simultaneously to OpenNet, the Gaining RL, the Losing RL and the Losing RSP. This avoids the need for OpenNet to manually forward the FTO request to the Losing RL and for the Losing RL to pass on the request to the Losing RSP. This will save time and avoid delays caused by interfacing issues or manual handling processes.

Grounds for rejection of an FTO request by a Losing RL or Losing RSP

9.10 OpenNet proposes that a Losing RL should have a right to reject an FTO request in two circumstances:

- (i) if the end-user has an existing bundled service and the Losing RSP requires the existing connection for the provision of the other services within the bundle; or
- (ii) if the Losing RL is using the same fibre connection to provide services to more than one RSP at the end-user premises.

9.11 SingTel supports the second ground for rejection. The Losing RL may reject an FTO request if the Losing RL provides services to other RSPs at the end-user premises.

9.12 The first ground for rejection should be limited to circumstances where the Losing RSP uses the same fibre connection to provide other fibre services to other end-users at the end-user premises or it provides other *fibre* services to the same end-user over the same fibre which is the subject of the FTO request. It should be made clear that a Losing RSP cannot reject an FTO request because it is providing a bundled service to the end-user at the retail level if the bundle comprises the fibre-

based service which is the subject of the FTO request together with a mobile service which is not operationally affected by the FTO process.

- 9.13 SingTel's proposal ensures that artificial barriers do not impede the FTO process and Losing RLs and Losing RSPs do not delay the process while safeguarding the end-user's interests by requiring the Gaining RSP to inform the end-user of the impact of the FTO process on any bundled services that the end-user has with the Losing RSP.

OpenNet should not automatically convert rejected FTO requests into requests for new connections

- 9.14 OpenNet proposes that validly rejected FTO requests will be automatically converted by OpenNet into "normal service provisioning orders". SingTel does not agree with this proposal.
- 9.15 First, there are circumstances where the most appropriate response to a rejected FTO request may be the lodging of a new FTO request by the Gaining RSP rather than a request for a new fibre connection. An example of this is where the Losing RL or Losing RSP's rejection is not based on valid grounds under the ICO. Automatically commencing the process for provisioning a new fibre connection after the first FTO request is rejected would be inappropriate and unnecessary in these circumstances.
- 9.16 Second, it would not benefit end-users for OpenNet to automatically convert rejected FTO requests to new connection requests even if the Gaining RSP ultimately wants to lodge such a new request because there are a number of matters which the Gaining RSP may need to manage before lodging the request. For example, it is possible that a new service would impose different terms and cost structures on the end-user as compared to an FTO process which the Gaining RSP would need to discuss with the end-user. Moreover, provisioning a new fibre connection may require the Gaining RSP to take steps such as arranging appointments with the end-user for works at their premises. Accordingly, the Gaining RSP should be left to manage a failed FTO process with an end-user in accordance with the Gaining RSP's normal processes. The Gaining RSP will have sufficient commercial incentive to expedite such actions. An automated process would not materially reduce the time in which the end-user obtains a new connection.

9.17 SingTel's proposal for dealing with rejected FTO requests is set out in Figure B of Attachment 2. In summary, where a Losing RL or Losing RSP rejects an FTO request within the set timeframe (for a reason as specified in the ICO), OpenNet should not proceed with the request. Rejection should be through the OpenNet Platform and be transmitted simultaneously to OpenNet, the Gaining RL, the Gaining RSP, and the Losing RL, so that the Gaining RSP or Gaining RL has the option of disputing the rejection, lodging a new connection request or taking such other action as may be appropriate in the circumstances. Any dispute could be the subject of the escalation procedures discussed in paragraph 9.21 below.

OpenNet's provisioning and notification obligations should be clarified and expressed in greater detail

9.18 SingTel agrees with OpenNet's proposal in clause 20.2(j) of Schedule 1 for implementing the actual FTO cutover. However, the proposal should be expanded to incorporate the following additional obligations:

- (i) upon completion of cutover of fibre from the Losing RL to Gaining RL, the OpenNet contractor must immediately notify the Gaining RSP, which must confirm whether or not any fault exists on the fibre connection;
- (ii) the OpenNet contractor must remain at the site for 20 minutes after the fibre cutover to allow the Gaining RSP time to activate its systems if no fault is found or to discuss options with an end-user if a fault is found;
- (iii) if a fault is found, the Gaining RSP must discuss the option of a further cutover to switch the fibre back to the Losing RL with the end-user and, if the end-user requests such a further cutover, the OpenNet contractor must revert the fibre to the Losing RL (provided the request is made within 20 minutes of the original cutover notification); and
- (iv) OpenNet must, on the same day as the FTO cutover occurs or is attempted, use the OpenNet Platform to notify the Gaining RL, Gaining RSP, Losing RL and Losing RSP whether the operation was successful.

9.19 If the FTO process is unsuccessful, OpenNet's notification is required for the Losing RSP to be aware that the end-user connection is restored. This approach avoids the end-user being left without a connection while the fault is investigated and resolved.

- 9.20 As explained in paragraph 9.21 below, an escalation process should also be included to allow the parties to expediently respond to faults that cannot be resolved within the appointed provisioning time. A summary of SingTel's preferred approach to unsuccessful FTO processes is contained in Figure C of Attachment 2.

The FTO process in the ICO should include an escalation process

- 9.21 OpenNet's proposed FTO process does not include any escalation mechanisms for dealing with technical or operational issues that may arise at different steps of the FTO process. An escalation process would be helpful, for example, where OpenNet's contractors are unable to successfully carry out FTO works at the appointed date. The escalation process should allow the interested parties to investigate the causes behind the failure and to find ways of resolving the problem where practical and avoid unnecessary delays to the end-user obtaining a requested service.

Obligations on RSPs should be implemented through back-to-back arrangements with RLs rather than through direct obligations in the ICO

- 9.22 The FTO process proposed by OpenNet imposes several obligations on the Gaining RSP and Losing RSP. For example, clause 20.2(a) of Schedule 1 creates an obligation on the Gaining RSP to "determine the End-User's eligibility for the FTO process via the OpenNet Platform", while clause 20.2(d) requires the Gaining RSP to "place the [FTO] order via the Gaining Requesting Licensee together with the particulars of the Gaining RSP's contractors".
- 9.23 SingTel does not oppose the general proposition that the Gaining RSP should check the end-user's eligibility for the FTO process and manage the process with an end-user. This is an efficient approach. However, the ICO is not the appropriate vehicle for imposing direct obligations on RSPs. The ICO is an agreement between OpenNet and RLs. RSPs are not parties to the ICO. Accordingly, RSPs do not have any direct legal obligation to observe the FTO process set out in the ICO and OpenNet has no privity of contract with RSPs to enforce those processes.
- 9.24 OpenNet's proposal appears resolve this issue through an industry-wide agreement as suggested in clause 20.1 of Schedule 1. An industry-wide agreement will be complicated and take time to negotiate and implement. It is an impractical and unnecessary solution to a problem that can be far more easily addressed. Making

the whole FTO process contingent on an industry-wide agreement delay the implementation of the new FTO process indefinitely. Requiring direct contractual relationships between OpenNet and RSPs also violates the principle behind the NBN regulatory framework, as the NBN is intentionally structured to allow OpenNet to provide services to RLs while being agnostic to RL-RSP arrangements, thereby providing maximum flexibility and competition at the higher levels of network service provision.

- 9.25 Instead of using the ICO to impose obligations directly on Gaining RSPs and Losing RSP or making the FTO process conditional on an industry-wide agreement, the ICO should require RLs to “back-to-back” or “pass-through” arrangements in relation to RSPs. These back-to-back obligations can be implemented using existing contractual arrangements between RLs and RSPs, rather than requiring any new agreements or frameworks to be concluded between multiple stakeholders.
- 9.26 SingTel agrees with the compensation and rebate proposals by OpenNet in clauses 20.2(i) to 20.2(n) of Schedule 1 of the ICO.

10. Main Body

- 10.1 SingTel does not have any comment regarding OpenNet’s proposed amendments to the main body of the ICO which relate to the supporting documentation required from RLs seeking to enter into the ICO.

11. Cancellation Charge under Relocation Service of Non-Residential End-User Connection to Another Address

- 11.1 SingTel does not have any comment regarding OpenNet’s proposed amendments to cancellation charges for the relocation of a non-residential end-user connection to another address under Schedule 15.

12. Report on Utilization or Activation Status of Fibre Connections Provisioned by OpenNet/ Release of Fibre Resources by Requesting Licensees Upon Termination of Use by RSP/End-Users

- 12.1 SingTel supports the introduction of a process to ensure that NBN fibre resources are used efficiently. However, OpenNet’s proposal in clauses 16.1-16.2 of Schedule 1 for a process based on fortnightly reporting by RLs will create a significant

unnecessary operational burden. RLs will also need more than 2 business days to terminate a fibre connection after receiving a termination request from an RSP. SingTel proposes an alternative hand-back approach as follows:

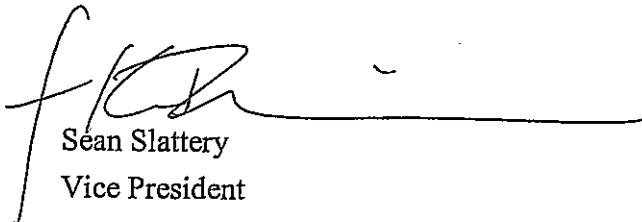
- (i) RLs must terminate an NBN fibre connection within 3 business days of the RSP receiving an end-user request to terminate the RL service on that fibre connection unless the RL is providing another service on the same fibre connection;
- (ii) RLs must also terminate an NBN fibre connection if the RL has not activated an RL service within 10 business days of receiving a request from an RSP on behalf of an end-user to provision an RL service; and
- (iii) where OpenNet reasonably believes that a RL is in contravention of the requirements in paragraphs 12.1 (i) or (ii) above, OpenNet may request that the existing RL provide evidence of use within 10 business days' of OpenNet's notice. Unless the existing RL can provide evidence that it is using the connection for an active service which has not been terminated, OpenNet may terminate the existing RL's use of the connection after the 10th business day.

13. SAP Rebate

13.1 SingTel does not have any comment regarding OpenNet's proposed amendments to the SAP Rebate formula in clause 6.9 of Schedule 1.

14. Please do not hesitate to contact us if you have any queries or require further clarification.

Yours sincerely,



Sean Slattery

Vice President

Regulatory & Interconnect

Singapore Telecommunications Limited

Attachment 1 – Table of Comments on Specific Clauses of the ICO

Clause	Subject of OpenNet Proposal	SingTel Submission
General		
	There are many instances where OpenNet has stated that it will inform the industry when certain features will be available on OpenNet's Platform.	OpenNet should review and update the ICO where the features have already been made available on OpenNet's Platform.
Main Body – Part 1		
Clause 1.8	Change to supporting documents required from RLs together with Notification of Acceptance of ICO	No comment
Schedule 1		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet cannot proceed due to any exception for 2 months	<p>Please see alternative proposal in section 8 of this Submission</p> <p>SingTel agrees with OpenNet's proposal to reject connection requests if OpenNet cannot proceed due to any exception for 2 months in part. Such cancellation should not occur for delays under clauses 2.6 (c), (g), (i) and (k)</p> <p>SingTel also submits that OpenNet must waive cancellation charges for any connection requests rejected after a 2 month SLG exception</p>
Clause 4.1	OpenNet has not proposed any change to this clause, which relates to how OpenNet updates Mandatory Service Information regarding newly connected Residential Premises, and subsequent service requests from RLs	OpenNet should review whether this clause is still necessary given its proposed insertion clause 4A, in relation to which SingTel has separately commented

Clause 4.2 (B) (ii) (a)	OpenNet has not proposed any change to this clause, which relates to circumstances in which OpenNet is not responsible for delays in relocating termination points within a premises	OpenNet should review whether clause 2.6(l) should be included in the list of circumstances in which OpenNet is not liable
Clause 4.3	Procedures and criteria for reclassification of premises as 'residential' or 'non-residential'	SingTel agrees with OpenNet's proposal in part. Please see proposed changes in section 4 of this Submission In addition, the current requirement, for OpenNet to provide one (1) business days' notice whether or not the reclassification is successful, should be retained. OpenNet's currently proposed amendment does not provide clarity on when the reclassification will be approved and when the RL may place a request
Clause 4A	New process for managing 'address not found' cases	Please see alternative proposal in section 3 of this Submission, which is consistent with the IDA's comments
Clauses 5.1–5.3, 5.13	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clause 6.2(B)	New time limit for no-charge cancellations of connection requests where OpenNet does not complete the connection at the requested time	No comment
Clause 6.9	Changes to SAP rebate	No comment

Deleted clause 6.11	Deletion of express service activation process	No comment
Clauses 9.5–9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLS of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Clause 20	Replaced process for fibre takeover	Please see alternative proposal in section 9 of this Submission
Annex 1D	New form for 'address not found' cases	Please see comments regarding clause 4A above
Annex 1E	New example of forecast notifications for proposed long-term alternative process for demand based service provisioning	Please see comments regarding clauses 5.1-5.3 and 5.13 above
Schedule 2		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet cannot proceed due to any exception for 2 months	Please see alternative proposal in section 8 of this Submission
Clause 4.3	Procedures and criteria for reclassification of premises as 'residential' or 'non-residential'	SingTel agrees with OpenNet's proposal in part. Please see proposed changes in section 4 of this Submission
Clause 4A	New process for managing 'address not found' cases	Please see alternative proposal in section 3 of this Submission, which is consistent with the IDA's comments
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clause 6.2(B)	New time limit for no-charge cancellations of connection	No comment

	requests where OpenNet does not complete the connection at the requested time	
Clause 6.12	Changes to SAP rebate	No comment
Clauses 9.5–9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLs of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Annex 2C	New form for 'address not found' cases	Please see comments regarding clause 4A above
Annex 2D	New example of forecast notifications for proposed long-term alternative process for demand based service provisioning	Please see comments regarding clauses 5.1-5.3 and 5.13 above
Schedule 3		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet cannot proceed due to any exception for 2 months	Please see alternative proposal in section 8 of this Submission
Clause 4.6	New obligation for OpenNet to use the nearest FTTB node to serve an NBAP connection within a non-residential building	No comment.
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5–9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Schedule 4		

Clause 2.6	New right to reject connection request if OpenNet cannot proceed due to any SLG exception for 2 months	Please see alternative proposal in section 8 of this Submission
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5-9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLs of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Schedule 5		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet cannot proceed due to any exception for 2 months	Please see alternative proposal in section 8 of this Submission
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5-9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLs of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Schedule 6		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject	Please see alternative proposal in section 8 of this Submission

	connection request if OpenNet cannot proceed due to any exception for 2 months	
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5-9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLs of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Schedule 7		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet cannot proceed due to any exception for 2 months	Please see alternative proposal in section 8 of this Submission
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5-9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLs of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Schedule 8		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet	Please see alternative proposal in section 8 of this Submission

	cannot proceed due to any exception for 2 months	
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5-9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLs of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Schedule 9		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet cannot proceed due to any exception for 2 months	Please see alternative proposal in section 8 of this Submission
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5-9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLs of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Schedule 10		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet	Please see alternative proposal in section 8 of this Submission

	cannot proceed due to any exception for 2 months	
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5-9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLS of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Schedule 11		
Clause 2.6	Exception from SLG for delay or non-cooperation from third parties and right to reject connection request if OpenNet cannot proceed due to any exception for 2 months	Please see alternative proposal in section 8 of this Submission
Clause 5.2	Changes to demand-based service provisioning approach	SingTel agrees with OpenNet's proposed refinements to the current process. However, SingTel does not agree with the long-term alternative proposal. Please see submission in section 1 of this Submission
Clauses 9.5-9.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission
Clauses 16.1-16.2	Changes to process for termination and hand-back by RLS of unused fibre connections	Please see alternative proposal in section 12 of this Submission
Schedule 12		
Clauses 7.10-7.11	Changes to processes for urgent / unscheduled diversion and maintenance activities	Please see alternative proposal in section 2 of this Submission

Annex 12F, clauses 1.8.1(c) and 1.8.4(b)	Change to physical access procedures for Central Offices (COs)	No comment
Schedule 12B		
Clause 1.8(h)	Extension of the current SLG exception for scheduled service interruptions to all service interruptions	Please see comments regarding clauses 6.6-6.8 below
Clauses 6.6-6.8	Changes to processes for urgent / unscheduled maintenance activities	Please see alternative proposal in section 2 of this Submission
Schedule 12C		
Clause 7.10-7.11	Changes to processes for urgent / unscheduled maintenance activities	Please see alternative proposal in section 2 of this Submission
Annex 12B-1, S/N 3	Changes to Co-Location rack space in Ayer Rajah CO	No comment
Annex 12F-1, clauses 1.8.1(c) and 1.8.4(b)	Change to physical access procedures for COs	No comment
Schedule 12C Annex 12C-1 Part A	OpenNet requires Co-Location Equipment to have an internal dimension of 42U. OpenNet should propose changes to this requirement which requires RLS to submit information about the internal dimension of rack and equipment to be co-located in COs.	<p>OpenNet should not use 42U as a measurement for height. "U" is a measurement of "internal" space within the rack, not the height of the rack. For example, rack with a 2.5meter height may only have 30U of space within it</p> <p>Imposing a maximum height limit in mm should be sufficient to meet OpenNet's requirements in managing the Co-Location Space</p> <p>OpenNet must not reject a Co-Location Equipment if the external dimension complies with the OpenNet's requirements.</p>

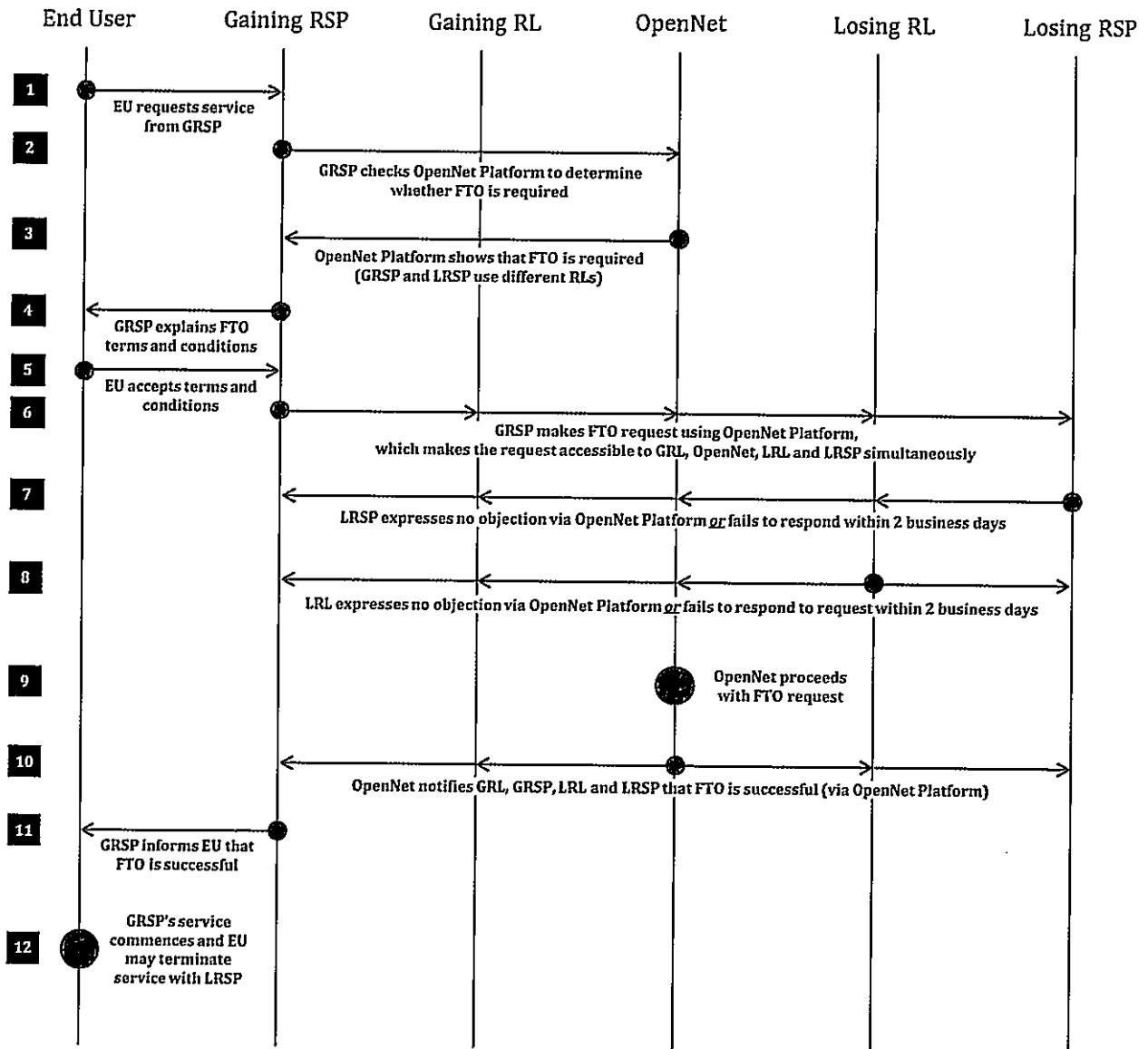
Schedule 12C Annex 12D-1 1.1.2	OpenNet should propose changes to this clause, which requires RL to only install racks which are exactly 600mm or 800mm wide in Co-Location space	This requirement is unnecessarily restrictive and may require RLs must custom build the necessary racks to be installed in the Co-Location Space ON should amend its ICO to allow any rack width up to a maximum of 10% greater than the relevant width of 600mm or 800mm.
Schedule 12 Annex 12D 1.5.2(a)	OpenNet should propose changes to this clause, which sets out the power that OpenNet will provide for co-located equipment	OpenNet does not currently offer fifty (50) Amp circuit breakers for direct current. To keep in pace with the latest equipment developments, RLs require, and OpenNet should offer, fifty (50) Amp circuit breakers for direct current in addition to the list of circuit breakers currently offered
Schedule 14		
Clause 2.3(b), Annex 14A-1	Changes to OSS/BSS connection form	No comment
Schedule 15		
Deleted clauses 1.12-1.13	Removal of express activation charges for residential end-user connections	Please see comments regarding clause 6.11 of Schedule 1 of this Submission
Clause 1.17	Addition of work slot charge for residential end-user connections	SingTel does not consider this charge to be necessary. Please see comments regarding clauses 5.1–5.3 and 5.13 of Schedule 1 and the equivalent clauses of other schedules above
Clause 2.16	Addition of incidental cost recovery provision for cancelled relocation requests	No comment
Clause 2.18	Addition of work slot charge for non-residential end-user connections	SingTel does not consider this charge to be necessary. Please see comments regarding clause

		5.2 of Schedule 2 and the equivalent clauses of other schedules above
Dictionary		
“Address Not Found Request”	Definition refers to “request for network coverage”	SingTel does not agree that OpenNet’s definition accurately reflects the concept of an “address not found” case. Please see comments regarding clause 4A of Schedule 1
“Daily Request”	New definition relates to OpenNet’s long-term alternative proposal for demand-based service provisioning	SingTel does not consider that this definition is required. Please see comments regarding clauses 5.1–5.3 and 5.13 of Schedule 1 and the equivalent clauses of other schedules above
“Demand Forecast”	New definition relates to OpenNet’s long-term alternative proposal for demand-based service provisioning	SingTel does not consider that this definition is required. Please see comments regarding clauses 5.1–5.3 and 5.13 of Schedule 1 and the equivalent clauses of other schedules above
“Express Service Activation Request Charge”	Changed definition reflects removal of express service activation option for residential end-user connections	Please see comments regarding clause 6.11 of Schedule 1 above
“Fibre Takeover”	Minor changes to language	No comment
“Gaining Requesting Licensee”	Changes to reflect OpenNet’s proposed changes to the FTO process	No comment regarding the definition
“Gaining Retail Service Provider”	Changes to reflect OpenNet’s proposed changes to the FTO process	No comment regarding the definition
“Losing Requesting Licensee”	Changes to reflect OpenNet’s proposed changes to the FTO process	No comment regarding the definition
“Losing Retail Service Provider”	Changes to reflect OpenNet’s proposed changes to the FTO process	No comment regarding the definition

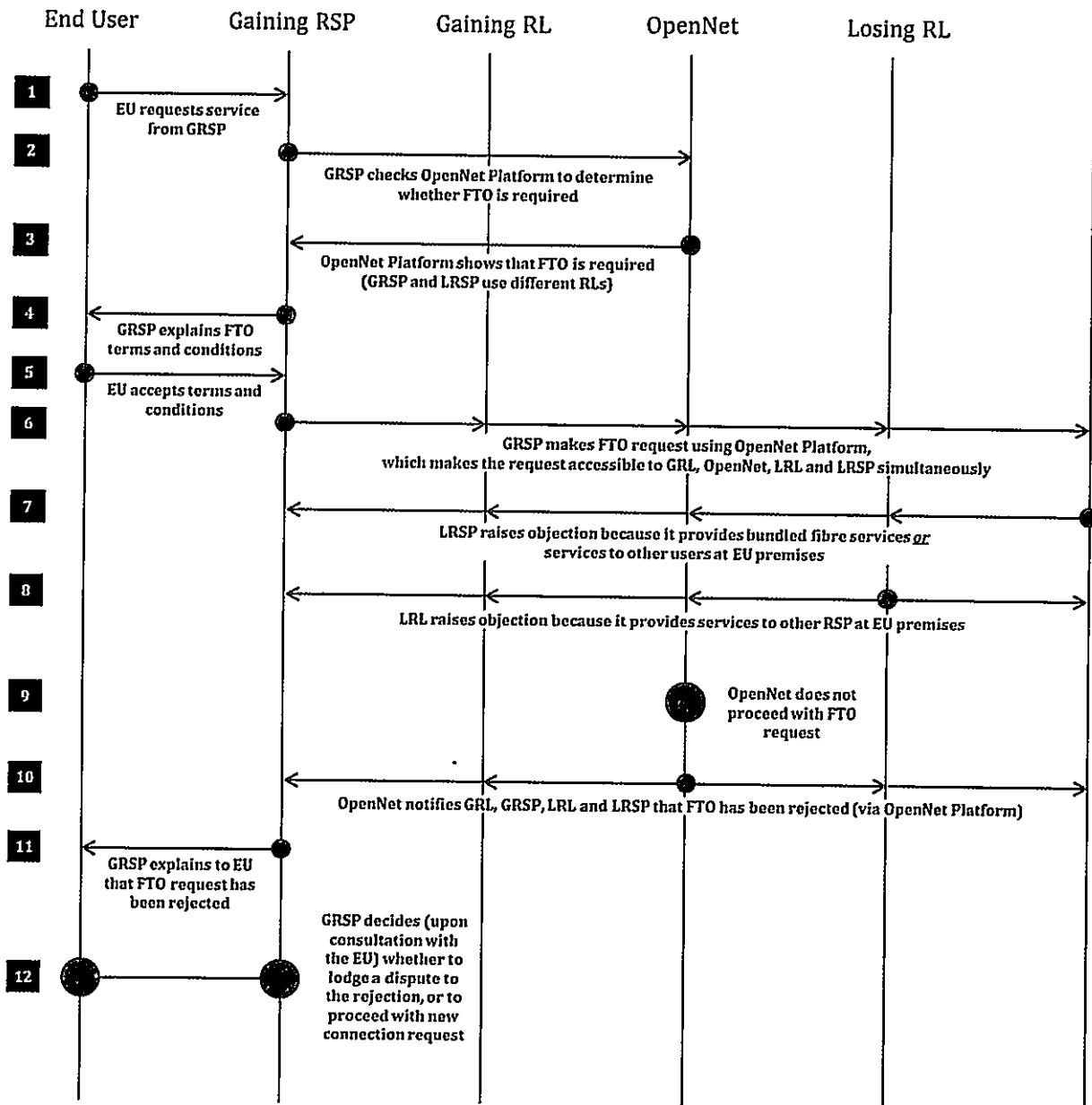
“Maximum Quota” [long-term approach]	Changes to reflect OpenNet’s proposed long-term demand-based service provisioning approach	SingTel does not consider that this definition is required. Please see comments regarding clauses 5.1–5.3 and 5.13 of Schedule 1 and the equivalent clauses of other schedules above
“Maximum Quota” [pre-long-term approach]	Proposed deletion to reflect OpenNet’s proposed long-term demand-based service provisioning approach	SingTel does not consider that this definition should be removed. Please see comments regarding clauses 5.1–5.3 and 5.13 of Schedule 1 and the equivalent clauses of other schedules above
“Minimum Commitment”	New definition relates to OpenNet’s long-term alternative proposal for demand-based service provisioning	SingTel does not consider that this definition is required. Please see comments regarding clauses 5.1–5.3 and 5.13 of Schedule 1 and the equivalent clauses of other schedules above
Deleted “New Requesting Licensee”	Deletion to reflect OpenNet’s proposed changes to the FTO process	No comment regarding the deletion of the definition
“SAP Rebate”	New definition relates to OpenNet’s proposed changes to the SAP Rebate	This definition should refer to the substantive clause instead of re-stating the formula for the rebate
“Seasonal Slot”	Proposed deletion to reflect OpenNet’s proposed long-term demand-based service provisioning approach	SingTel does not consider that this definition should be removed. Please see comments regarding clauses 5.1–5.3 and 5.13 of Schedule 1 and the equivalent clauses of other schedules above
“Seasonal Slot Notification”	Proposed deletion to reflect OpenNet’s proposed long-term demand-based service provisioning approach	SingTel does not consider that this definition should be removed. Please see comments regarding clauses 5.1–5.3 and 5.13 of Schedule 1 and the equivalent clauses of other schedules above

Attachment 2 – Interaction Diagrams of SingTel’s Preferred FTO Process

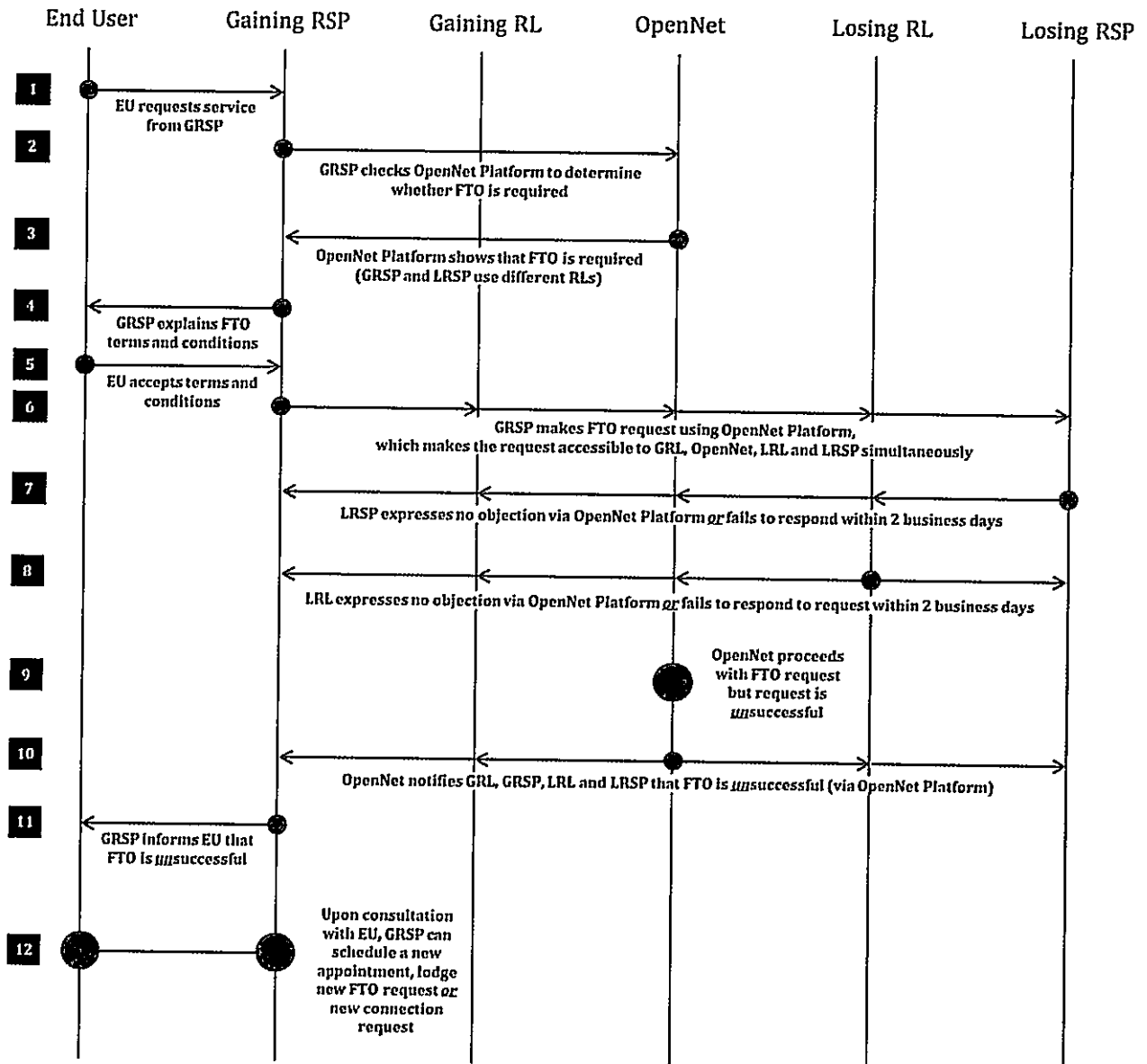
A. Normal FTO process



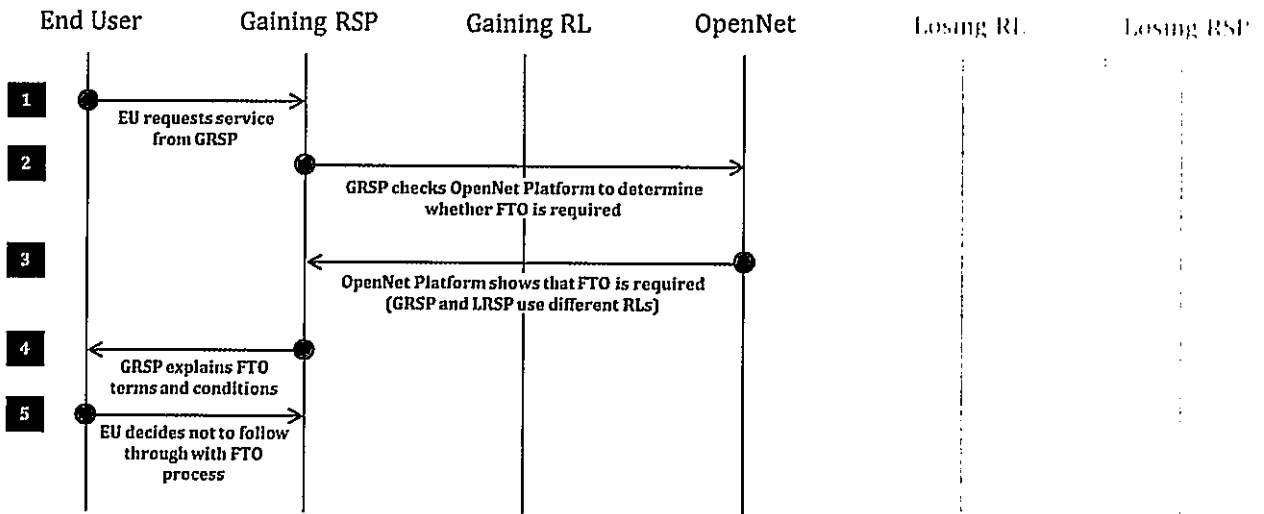
B. FTO process rejected by Losing RL or Losing RSP



C. FTO process unsuccessful on technical grounds



D. EU-abandoned FTO process



E. Layer 2 churn process

