
PUBLIC CONSULTATION ON NETLINK TRUST'S INTERCONNECTION OFFER

**Submission by StarHub Ltd to the
Infocomm Media Development Authority**

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Introduction

1. StarHub Ltd (“**StarHub**”) thanks the Infocomm Media Development Authority of Singapore (the “**Authority**”) for the opportunity to comment on the proposed changes to the NetLink Trust (“**NLT**”) Interconnection Offer (“**ICO**”).
2. As a retail service provider (“**RSP**”) over the nationwide broadband network (“**NBN**”), StarHub is keenly interested to review any proposed changes to NLT’s processes. We believe that this consultation is timely to address the new operational issues inherent with the provisioning of NBN services to buildings constructed under the Code of Practice for Info-communication Facilities in buildings 2013 (“**COPIF 2013**”).
3. In general, StarHub agrees with the Authority’s required changes to NLT’s ICO. However, it is important to note that the charges imposed by NLT will ultimately be passed-through to end-users, and any operational issues or delays faced by NLT will significantly impact the end-user experience. It is therefore imperative that NLT’s ICO contain a clear statement on NLT’s processes, as well as how NLT expects to charge for its services.
4. Based on our review, we are concerned that NLT’s proposed ICO changes do not provide sufficient detail on its operational processes for managing fault repairs at COPIF 2013 buildings. There are also several significant question marks over how NLT will seek to impose charges, and who will be responsible for bearing those charges. These items need to be clarified upfront, to prevent any disputes.
5. StarHub’s detailed comments are attached below. We sincerely appreciate the Authority’s consideration of our comments.

StarHub's Comments:

One-Time Charges ("OTCs") for Residential and Non-residential End-User Connection ("EUC") Services

6. The Authority has allowed NLT to impose a new Service Activation Charge for delivery of Residential and Non-residential EUC services. In its consultation paper, the Authority has stated that this new Service Activation Charge is meant to *"cover works related to patching at the MDF room, FIP and/or FDP as well as any subsequent corresponding un-patching arising from order deactivation, termination or service relocation"*.

7. However, under the proposed Schedule 15 of the NLT ICO, NLT is suggesting that, in addition to the Service Activation Charge, the following charges will continue to apply:

- Section 1.4 and 2.4: Patching Charge in the CO;
- Section 1.1.4 and 2.15.2: Per Patch Cable deactivated/removed in CO (where applicable); and
- Section 1.1.4 and 2.15.2: Per Patch Cable deactivated/removed in MDF Room.

8. Given that the new Service Activation Charge is meant to cover "patching" related work, we respectfully suggest that NLT should remove all other patching-related charges from its ICO. We believe that this is in-line with the Authority's intent. The removal of the additional patching charges also significantly simplifies NLT's charging methodology.

NLT Cost Savings for Deployments to COPIF 2013 Buildings:

9. We note that NLT will enjoy significant cost savings in deploying its network to COPIF 2013 buildings, as it will no longer have to rollout its infrastructure directly into every home. Not only is this a one-time saving in deployment costs, it will also translate to reduced NLT maintenance costs.

10. The reduction in NLT's costs should be reflected in the regulated wholesale rates it is allowed to charge to RLs (in particular falls to the monthly recurring charges for residential EUC services). Given the competitive nature of the retail services market, reductions in NLT's wholesale rates will also translate to lower retail rates, which benefits end users.

11. We look forward to the Authority's review on this matter.

Clarity on Fault Repair Process for COPIF 2013 Buildings:

12. In relation to the fault repair process for COPIF 2013 buildings, StarHub fully agrees with the following:

- That NLT should move away from No Fault Found charges, and towards a Fault Investigation Charge (“**FIC**”) regime;
- The Authority’s framework depicting when NLT’s FIC and Repair Charges under Schedule 15 of the ICO shall apply (the “**Repair Framework**”)¹; and
- That NLT shall be the sole party fronting its requesting licensees (“**RLs**”) on fault management for both pre-COPIF 2013 and COPIF 2013 buildings.

13. In particular, it is critically important that NLT specify upfront in the ICO that it must deal with all requests for fault identification and repair in a prompt manner, and that it cannot seek to direct RLs to other parties for fault resolution. As a responsible service provider, NLT should also be required to provide updates on its fault restoration process, as well as estimated times for the fault to be resolved. At the end of the process, NLT should also provide a statement of the action it has taken to investigate and resolve any fault. This is essential to keep end-users updated, and manage their expectations.

14. We have also identified instances where NLT’s proposed ICO does not address operational issues that could arise for fault repairs at COPIF 2013 buildings. These are set-out below.

Identifying Location of Faults:

15. Should an end-user experience a fault, RLs / RSPs are unlikely to be able to identify the exact location of faults (if the fault is outside of their networks). In particular, given the layout of COPIF 2013 buildings, RLs / RSPs will not be able to tell whether a fault is within NLT’s network, or within the fibres installed by the building developers.

16. This provides NLT with an incentive to claim that faults lie outside of its network, in order to be able to impose the FIC and repair charges.

17. Given this asymmetry of information, we would respectfully suggest that, before NLT is allowed to impose any charges related to fault repairs, it must provide RLs with an investigation report, listing down:

- The investigations it has carried out;
- Evidence showing the location of the fault, and why NLT should be allowed to charge for the fault repair.

18. In addition, if NLT is proposing to charge additional man-hours above the minimum FIC of \$64, it needs to clearly explain why those charges are necessary. In StarHub’s experience, it is very difficult to explain to end-users why they should be paying for repairs

¹ With reference to Diagram 1 of the Authority’s consultation paper.

at all, let alone an hourly rate for NLT to carry out the repairs. Without a clear explanation of NLT's costs, it will be very difficult for RLs / RSPs to justify NLT's charges to end-users.

Faults Affecting Common Infrastructure:

19. In certain cases, the faults may be at common infrastructure located outside of NLT's network, but shared by multiple RLs / RSPs / end-users. For example, damage in the fibres along the common corridor of a high-rise residential building. As common infrastructure may be located in publicly accessible areas, the cause of the fault is unlikely to be due to any individual RL / RSP / end-user.

20. It is not clear how NLT will seek to proportion the repair charges for faults affecting common infrastructure. For example:

- Should the first RL that raises the fault be required to foot 100% of the bill? This creates a clear disincentive to report faults. As mentioned above, the cause of the fault may be outside of the end-user's control, and the end-user is unlikely to agree to pay the repair costs; or
- Should all RLs providing service over the common infrastructure be required to equally proportion the bill based on the number of end-users served? This would be subject to disputes as some end-users could claim they never asked for the repairs. It is also unclear how this could be enforced on the different parties.

21. In StarHub's view, repairs to common infrastructure should either: (a) be absorbed by the building developer as it is their infrastructure; or (b) be borne by NLT as part of its normal course of business. We would respectfully request the Authority to clarify its position on the matter, and how NLT should implement this position.

Faults Affecting Infrastructure under Warranty:

22. In certain cases, NLT may determine that the fault lies within the fibres installed by the building developers in COPIF 2013 buildings. In many cases, COPIF 2013 buildings will be relatively new, and faults could be covered by the developers' warranty.

23. For such cases, we respectfully suggest that NLT come-up with a process explaining how it will:

- Refer the case back to the developer in question for repairs under the warranty;
- Follow-up as necessary to ensure that the fault is rectified; and
- Calculate the charges for services rendered, and who should be liable for the charges.

Setting-out this process upfront provides clarity to RLs / RSPs / end-users.

24. In such a scenario, NLT may be required to follow-up on multiple occasions with the developer. It is unclear if NLT would be seeking to impose multiple FICs as a result of this. We believe that any such move would create significant end-user dissatisfaction.

25. Therefore, as a general suggestion, we believe that NLT should only be allowed to charge the FIC once for each fault escalation incident.

NLT's Authorised Contractors:

26. In the proposed Section 11.8(e) of Schedule 1 of NLT's ICO, NLT has stated that end users may approach any of NLT's authorised contractors to carry out fault rectification for faults in the building owner/ building developer's network in COPIF 2013 buildings.

27. We would respectfully request that NLT provide a link, in its ICO, to a list of authorised contractors (with their contact details). This provides a convenient source of information for RLs / RSPs / end-users.

28. There may also be cases where an RL / RSP / end-user engages one of NLT's authorised contractors to repair a fault, but it is subsequently discovered that the fault extends onto the NLT network. In such a scenario, will the authorised contractor have the right to work directly on the NLT network? We believe that this should be allowed, to minimise the downtime experienced by the end-user.

Mixed Developments:

29. As a matter of clarification, we would also respectfully request the Authority to advise whether there will be any case where a single development contains a mix of both COPIF 2013 and pre-COPIF 2013 buildings. If this is possible, it is also important for RLs to understand how NLT will reflect this within their system.

OTCs for Non-residential EUC Service:

30. Under the proposed Section 2.3.4 of Schedule 15 of the NLT ICO, NLT has stated that the "*Installation of Network Charge for Non-Residential End-User Connection ... will also cover third-party works necessary for the provisioning of such a connection, including creation and reinstatement of access openings in ceilings and/or deployment of scissor lifts or any other suitable means of access cable trays*".

31. Given the substantial increase in NLT's OTC for Non-residential EUC services, we are concerned that it may not fully cover all third party charges involved in the provisioning of the service. For example, it is not clear whether the revised OTC covers items such as:

- Maps;
- Deposits;
- Insurance;
- Escort Fees;
- Overtime charges for building personnel;

- Specific aesthetic requirements; and
- Other special requirements imposed by the building manager.

32. It would be a dissatisfactory outcome if NLT was allowed to substantially increase its OTCs, only for end-users to continue to face delays due to NLT's inability to cover third party costs. To provide clarity, we respectfully request that the Authority require NLT to fully specify all cost items which are included and excluded in the revised OTC.

Fault Identification Charge for Non-Residential Buildings:

33. Under the proposed Section 2.8 of Schedule 15 of the NLT ICO, NLT has stated that: *"For avoidance of doubt, NetLink Trust will not levy any Fault Identification Charge for instances **whereby the fault is due to NetLink Trust's Network or equipment**"* (emphasis added).

34. This position appears to contradict the Authority's Repair Framework. According to the Repair Framework, where the fault occurs on the NLT network, NLT shall only impose FIC and repair charges for faults *"evidently caused by RL/RSP/End-user"*. For *"faults not caused by RL/RSP/End-user: It will be NLT's responsibility to maintain its network and hence to identify and rectify any faults"*.

35. In this case, NLT's proposal suggests that, so long as the fault is not directly attributable to NLT's network or equipment, end-users are liable to pay the FIC and repair charges. This is not reasonable. For example, if NLT suffers a cable cut, or if its equipment is damaged by rats, it cannot be the responsibility of the end-user to pay NLT for repairs to its network.

36. We would respectfully suggest that NLT be required to align Section 2.8 of Schedule 15 of the NLT ICO with the Authority's Repair Framework.

Comparison between FIC and other Investigation / Onsite Charges:

37. NLT has set-out the following charges in its proposed ICO:

- FIC: \$64 (minimum charge for first two hours);
- Joint Investigation Charge: \$130 (minimum charge per staff for first two hours); and
- Onsite Charges: \$130 (minimum charge per staff for first two hours).

38. The work involved for all three activities appear to be similar (i.e., qualified NLT personnel will be sent onsite to review an issue with the NBN). The similarity of these charges is further reinforced by the fact that the charges for the subsequent hourly block charges are exactly the same.² We also note that the FIC appears to be \$64 regardless of the number of staff sent by NLT to investigate the reported fault.

39. It is therefore not clear to StarHub why the Joint Investigation and Onsite Charges are more than double the FIC. We would respectfully request clarification on this point. If the scope of work is similar, it may be logical for NLT to reduce the Joint Investigation and Onsite Charges accordingly, to better reflect the actual cost of its work.

Timeframe for Implementation:

40. Given the fairly wide scope of NLT's changes to its ICO, individual RLs / RSPs will need time to amend their systems and processes to accommodate the changes. We respectfully request that the Authority allow RLs / RSPs a minimum of 6-months to implement the necessary changes.

² i.e., between \$20 to \$40 per hour depending on the period of work.

Conclusion

41. A summary of the key points of StarHub's submission is as follows:

- NLT's new Service Activation Charge is meant to cover patching related works. Therefore, all other patching charges should be removed from the ICO. This also has the benefit of streamlining NLT's charging methodology;
- The reduction in costs enjoyed by NLT for deployment to COPIF 2013 buildings should be reflected through a reduction in its wholesale rates. Given the competitive nature of the retail services market, this will also translate to reduced retail prices for end users. StarHub looks forward to the Authority's review on this matter;
- NLT must be required to follow-up end-to-end on any fault incidents reported. It should also provide regular updates on its investigations, and the work it has done to rectify the fault. This is part of responsible customer management;
- RLs / RSPs will have limited information on faults occurring outside of their networks. This creates an incentive for NLT to claim that faults lie outside of its network in order to charge the FIC and repair charges. To address this asymmetry of information, before NLT imposes any charges, it should provide an investigation report explaining its investigations, and showing evidence that it is allowed to charge for the repairs;
- There may be cases where faults lie in common infrastructure which is in publicly accessible areas (such as common corridors). NLT needs to have a process in place explaining how it will seek to charge for any faults occurring in common infrastructure. We respectfully suggest that such charges should either be (a) borne by the building developer; or (b) borne by NLT itself as part of the normal course of its business;
- NLT needs to clearly specify its process for handling faults in COPIF 2013 buildings which are still under warranty. This provides clarity upfront to RLs / RSPs / end-users. NLT should also only be allowed to impose one FIC per fault escalation incident. This is to prevent multiple rounds of charging if NLT is required to follow-up on several different occasions;
- NLT's OTCs for the Non-residential EUC service needs to clearly (and fully) specify the type of third party costs that it covers. Otherwise, there will continue to be delays and disputes over what NLT is obliged to pay for to deliver a non-residential connection;
- NLT's ICO should provide a link to its list of authorised contractors. NLT should also allow its authorised contractors to carry out works directly on its network, if so necessary. This minimises the downtime experienced by end-users who experience faults over the NBN;

- NLT's position on the responsibility of paying for repairs at non-residential buildings appears to contradict the Authority's Repair Framework. We respectfully suggest that the Authority review this point;
- The charge for the FIC is less than half the amount of NLT's Joint Investigation and Onsite Charges. It is important for the Authority to clarify the difference between these charges, and whether they should be aligned to better reflect NLT's cost of service; and
- StarHub requests the Authority to provide a 6-month timeline for RLs / RSPs to amend their systems and processes to align with the revised NLT ICO.

42. StarHub is grateful for the opportunity to comment on this matter and we appreciate the Authority's consideration of our comments.