

## QOS STANDARDS ON NETLINK TRUST’S PROVISIONING OF RESIDENTIAL END-USER CONNECTION SERVICE

Performance Indicator		Remarks	QoS Standards	Financial Penalty
(A)	Percentage of Residential End-User Connection service orders (“ <b>Residential Orders</b> ”) provisioned (i) within three (3) business days (“ <b>BD</b> ”) of the date of service order <sup>1</sup> or (ii) by the Request For Activation (“ <b>RFA</b> ”) date <sup>2</sup> (where Slot(s) are available on (a) T+3 BD or (b) the earliest date available for selection <sup>3</sup> )	For Compliance	<b>≥ 98.0%</b>	S\$10,000 per breach per month Additional penalties may be imposed for: (1) serious failures; or (2) continuing or repeated breaches.
(B)	Percentage of Residential Orders provisioned (i) within seven (7) BD of the date of service order or (ii) by the RFA date + four (4) BD (where Slot(s) are available on (a) T+7 BD or (b) the earliest date available for selection + four (4) BD <sup>3</sup> )	For Compliance	<b>100.0%</b>	

<sup>1</sup> The date of service order shall be the BD the Residential Order is submitted to NetLink Trust by the RL. If the Residential Order is submitted on a non-BD, it will be deemed to be submitted on the first BD immediately following the date of submission.

<sup>2</sup> RFA date refers to the date requested beyond the service provisioning timeframe of three (3) BD (or seven (7) BD) of the date of service order. Orders provisioned through the Fibre Takeover Process or Enhanced Fibre Takeover Process will be treated as “RFA date” order.

<sup>3</sup> For Residential Orders provisioned through the Fibre Takeover Process or Enhanced Fibre Takeover Process

1. For the avoidance of doubt, the QoS standards for a particular month (the “Month”) shall be computed as follows:

$$(A) \frac{\text{\textit{Total Number of Residential Orders Submitted in the Month which are Provisioned (i) within Three (3) Business Days or (ii) by the RFA date (where Slot(s) are available on (a) T+3 Business Days or (b) the earliest date for selection for Residential Orders provisioned through the Fibre Takeover Process or Enhanced Fibre Takeover Process as committed by NetLink Trust)}}}{\text{\textit{Total Number of Residential Orders Submitted in the Month – Total Number of Residential Orders Submitted in the Month which are Rejected/Cancelled within Three (3) Business Days or which are Rejected/Cancelled by RFA Date}}} \times 100\%$$

$$(B) \frac{\text{\textit{Total Number of Residential Orders Submitted in the Month which are Provisioned (i) within Seven (7) Business Days or (ii) by the RFA date (where Slot(s) are available on (a) T+3 Business Days or (b) the earliest date for selection for orders provisioned through the Fibre Takeover Process or Enhanced Fibre Takeover Process as committed by NetLink Trust) + 4 Business Days<sup>3</sup>$$

2. The Fibre Takeover Process is a process where the existing fibre strand is re-used when an end-user switches from one RSP to another. NetLink Trust has worked with the industry on refinements to the Fibre Takeover Process, and has implemented the Enhanced Fibre Takeover Process. Currently, the earliest date available for selection committed by NetLink Trust for Residential Orders provisioned through the Fibre Takeover Process and the Enhanced Fibre Takeover Process is nine (9) business days and five (5) business days of the date of service order respectively.
3. For the avoidance of doubt, Residential Orders provisioned outside of the Fibre Takeover Process and Enhanced Fibre Takeover Process may only be rejected by NetLink Trust under the following circumstances: (a) orders that are submitted to NetLink Trust are not in the prescribed form; (b) orders do not contain the required information; (c) the information provided in the orders is inaccurate; and/or (d) the RL has committed a material breach in its contract with NetLink Trust.
4. Where an RL requests a Residential Order to be provisioned beyond three (3) BD (or seven (7) BD), and such delayed delivery is truly at the request of the RL (including a request by the RL for the orders to be provisioned through the Fibre Takeover Process or Enhanced Fibre Takeover Process) and not due to or caused by NetLink Trust’s lack of quota slots or insufficient fibre capacity, such date shall be deemed as the “RFA Date” and the date when the order is submitted shall be deemed as day “T”. NetLink Trust will need to provide documentary evidence to satisfy IMDA that despite NetLink Trust’s quota slots being available within three (3) BD (or seven (7) BD), such delayed delivery is

truly at the request of the RL and not due to or caused by NetLink Trust.

5. Cancellation of Residential Orders can only be initiated by RLs, and NetLink Trust shall provide documentary evidence of the same to IMDA.
6. For the avoidance of doubt, delays in service provisioning due to NetLink Trust, end-users, building owners and other third parties will be included in the QoS standards computation.
7. NetLink Trust shall provide justification with supporting evidence to IMDA for any failure to meet the applicable QoS standards.
8. Any processing time beyond the specified standard caused by any provisioning quota from NetLink Trust will **not** be excluded from the QoS standards.
9. A Residential Order submitted in the Month, but provisioned in subsequent months, shall be included in the computation of the QoS standards percentage for the Month when the order was submitted to NetLink Trust.
10. When requested by IMDA, NetLink Trust is also required to provide statistics on the Residential Orders provisioned through the Fibre Takeover Process or the Enhanced Fibre Takeover Process (e.g. total number of such orders, NetLink Trust's QoS performance for these orders).
11. NetLink Trust shall provide the reports to IMDA on a monthly basis. To allow NetLink Trust sufficient time to prepare the reports, NetLink Trust is given up to one (1) month to submit the report after the last day of the Month (including all orders submitted in that Month) (e.g., to submit the report for the month of January 2013 by end February 2013.)

**QOS STANDARDS ON NETLINK TRUST’S PROVISIONING OF NON-RESIDENTIAL END-USER CONNECTION SERVICE**

Performance Indicator		Remarks	QoS Standards	Financial Penalty
(A)	Percentage of Non-Residential End-User Connection service orders (“ <b>Non-Residential Orders</b> ”) provisioned within four (4) calendar weeks of the date of service order <sup>4</sup>	For Compliance	<b>≥ 80.0%</b>	S\$10,000 per breach per month Additional penalties may be imposed for: (1) serious failures; or (2) continuing or repeated breaches.
(B)	Percentage of Non-Residential Orders provisioned within eight (8) calendar weeks of the date of service order	For Compliance	<b>100.0%</b>	

For the purpose of this QoS Framework, Non-Residential End-User Connection only refers to the connection provisioned by NetLink Trust from NetLink Trust’s Central Office to the Non-Residential End-User premise<sup>5</sup>.

<sup>4</sup> The date of service order shall be the BD the Non-Residential Order is submitted to NetLink Trust by the RL. If the Non-Residential Order is submitted on a non-BD, it will be deemed to be submitted on the first BD immediately following the date of submission.

<sup>5</sup> Non-Residential EUCs which NetLink Trust provides from NetLink Trust’s Central Office to (1) the Termination Point in the telecommunication riser on the same floor where the Non-Residential Premise is located; or (2) the FTTB Node of the Non-Residential Premise where NetLink Trust’s network ends will not be included in the computation of this QoS standard.

1. For the avoidance of doubt, the QoS standards for a particular month (the “Month”) shall be computed as follows:

*Total Number of Non-Residential Orders Submitted in the Month which are Provisioned (i) within Four (4) Calendar Weeks or (ii) by RFA Date (where T+4 Calendar Weeks Slot(s) is available)*

$$(A) \frac{\text{Total Number of Non-Residential Orders Submitted in the Month – Total Number of Non-Residential Orders Submitted in the Month which are Rejected/Cancelled within Four (4) Calendar Weeks or which are Rejected/Cancelled by RFA Date}}{\text{Total Number of Non-Residential Orders Submitted in the Month}} \times 100\%$$

*Total Number of Non-Residential Orders Submitted in the Month which are Provisioned (i) within Eight (8) Calendar Weeks or (ii) by RFA Date (where T+8 Calendar Weeks Slot(s) is available)+ Four (4) Calendar Weeks*

$$(B) \frac{\text{Total Number of Non-Residential Orders Submitted in the Month – Total Number of Non-Residential Orders Submitted in the Month which are Rejected/Cancelled within Eight (8) Calendar Weeks or which are Rejected/Cancelled by RFA Date}}{\text{Total Number of Non-Residential Orders Submitted in the Month}} \times 100\%$$

2. For the avoidance of doubt, Non-Residential Orders may only be rejected by NetLink Trust under the following circumstances: (a) orders that are submitted to NetLink Trust are not in the prescribed form; (b) orders do not contain the required information; (c) the information provided in the orders is inaccurate; and/or (d) the RL has committed a material breach in its contract with NetLink Trust.
3. Where an RL requests a Non-Residential Order to be provisioned beyond the four (4) calendar weeks (or eight (8) calendar weeks) despite NetLink Trust’s quota slots being available within four (4) calendar weeks (or eight (8) calendar weeks), and such delayed delivery is truly at the request of the RL and not due to or caused by NetLink Trust, such date shall be deemed as the “**RFA Date**” and the date when the order is submitted shall be deemed as day “**T**”. NetLink Trust will need to provide documentary evidence to satisfy IMDA that despite NetLink Trust’s quota slots being available within four (4) calendar weeks (or eight (8) calendar weeks), such delayed delivery is truly at the request of the RL and not due to or caused by NetLink Trust.
4. Cancellation of Non-Residential Orders can only be initiated by RLs, and NetLink Trust shall provide documentary evidence of the same to IMDA.
5. For the avoidance of doubt, delays in service provisioning due to NetLink Trust, end-users, building owners and other third parties will be included in the QoS standards computation.
6. NetLink Trust shall provide justifications with supporting evidence to IMDA for any failure to meet the applicable QoS standards.

7. Any processing time beyond the specified standard caused by any provisioning quota from NetLink Trust will **not** be excluded from the QoS standards.
8. A Non-Residential Order submitted in a particular month, but provisioned in subsequent months, shall be included in the computation of the QoS standards percentage for the month when the order was submitted to NetLink Trust.
9. NetLink Trust shall provide the reports to IMDA on a monthly basis. To allow NetLink Trust sufficient time to prepare the reports, NetLink Trust is given up to three (3) months to submit the report after the last day of the Month (including all orders submitted in that Month) (e.g., to submit the report for the month of January 2013 by end April 2013).