

QoS STANDARDS FOR FIXED NETWORK TELECOMMUNICATION SERVICE (PUBLIC BASIC TELEPHONE SERVICE)

This is applicable to Public Telecommunication Licensees (PTL) providing basic telephone services using number level “6” ¹

	Performance Indicators (For Compliance Unless Otherwise Indicated ²)	QoS Standard
(A)	Availability	
(1)	Network Availability³	> 99.9%
(B)	Fixed Voice Services (to be separately measured for residential and business fixed voice services)	
(1)	Telephone Installation and Activation for Fixed Voice Service⁴ - % of phones installed:	
(a)	(i) Within 3 working days after a working connection has been provisioned to the PTL by its upstream provider or on date agreed/specified by the customers for fibre connections; and (ii) within 5 working days or on date agreed/specified by the customers for copper and co-axial connections	≥ 95%
(b)	Within 4 working days after time specified in (a)	100%
(2)	Telephone Fault Repair Time⁵: % of faults fixed within:	
(a)	24 hours	≥ 90%
(b)	72 hours	≥ 99.9%
(3)	Number of Faults Reported per 100 Telephone Lines⁶	< 0.5
(4)	Telephone Fault Reporting Service⁷	
(a)	% of total calls handled ⁸	For monitoring
(b)	Average Waiting Time ⁹	For monitoring
(5)	% of Trouble Reports within 30 days of Installation and Activation¹⁰	For monitoring

¹ The QoS standards applies to all basic telephone services using number level ‘6’ provisioned through copper, co-axial and fibre connections.

² For each instance of non-compliance, a financial penalty of up to S\$50,000 per standard per month may be imposed. IMDA reserves the right to increase the quantum of the financial penalty for serious or continual breaches.

³ Network Availability is the measure of the degree to which the network is operable and not in a state of failure or outage at any point of time. It measures the total downtime of the network, including but not limited to the routers, softswitches, multiplexers and connection to the Internet backbone (if applicable) over a month. Outage time includes software and hardware faults. All scheduled downtime for the purposes of maintenance and upgrading of the network system will be excluded from the calculation. However,

the PTLs must keep their users informed of such maintenance times. Please note that reported downtime should include any downtime caused by upstream service providers, as experienced by the end user.

$$\text{Network Availability} = \frac{\text{Total operational minutes} - \text{Total minutes of service downtime}}{\text{Total operational minutes}} \times 100\%$$

- ⁴ Telephone installation and activation time for fibre connections should be computed from the date a working connection is provisioned to the PTL by its upstream provider, or based on the date agreed/specified by the customers. For co-axial and copper connections, the telephone installation and activation time should be computed from the date the application is received to the date the service is activated. The PTLs are required to submit the **aggregated** performance for the above and ensure that the aggregated performance meets the QoS standard of $\geq 95\%$. The computation of this indicator should be based on the orders submitted in a particular month, even though the order may be fulfilled by the PTL in a different month. For example, an order submitted in January but fulfilled by the PTL in February will be considered as a January order. For fibre connections, if the PTL is relying on the upstream provider's connection service to provision an order, the telephone installation and activation time will start once the upstream provider hands over a working connection to the PTL. For the avoidance of doubt, if the PTL is also relying on an Operating Company, such as Nucleus Connect Pte Ltd, the telephone installation and activation time includes the time taken by the Operating Company to provision a working connection service to the PTL. Should a PTL deploy its own fibre connections, the service activation time can be measured based on the PTL's ability to provision the service orders on the date agreed with / specified by the end-user.

Notwithstanding the above, for orders where the due date for service installation and activation under the QoS framework falls in the next quarter due to (i) the service activation and installation request being made in the last few days of the quarter; (ii) a delay by the upstream provider in handing over a working connection; or (iii) the date agreed/specified by the end-user falling in the next quarter, the performance of such orders should be computed in the subsequent month that the order was due to be fulfilled under the QoS framework.

A "working connection" refers to a connection where there is no installation-related fault. For example, in the case of NetLink Trust being the upstream provider, an installation-related fault is deemed to have occurred when a downstream provider first carries out the installation of network termination equipment and a "success" light is not detected on the network termination equipment for reasons not attributable to the downstream provider or the downstream provider's network, and for which the downstream provider has raised a trouble ticket to NetLink Trust's fault reporting and control centre. A fault reported on a fibre connection shall be treated as an installation-related fault if it is reported by the downstream provider within 7 calendar days from NetLink Trust's handover of the fibre connection to the downstream provider, subject to the fibre connection installation taking place on or before the requested service activation date, or any such date mutually agreed by NetLink Trust and the downstream provider. Where the fibre connection is delayed due to NetLink Trust, the timeframe shall be extended to 14 calendar days from NetLink Trust's handover of the fibre connection to the downstream provider. Faults reported that are still pending the results of investigations by the deadline of submission of the QoS report must be included in the month which they are installed.

- ⁵ Based on the time taken by the PTLs to repair faults that are within their network. For the avoidance of doubt, faults that do not require a truck roll (e.g. an onsite visit to the customer's location such as the customer's home) and faults due to the customer premise equipment should be included in the computation of the PTL's QoS performance.
- ⁶ Based on faults that are within the PTL's network.

⁷ Based on the total number of calls relating to the fixed voice service which were made to the telephone fault reporting service hotline.

⁸ Based on the % of total calls handled on the PTL's telephone fault reporting service hotline which end-users requested to be handled by a customer care officer.

⁹ From the time that the call is received by the call centre or customer care system, to the time when the call is handled by a customer care officer.

¹⁰ All trouble reports within 30 days of installation or activation that relate to the fixed voice service, including but not limited to faults due to the upstream provider, faults due to underlying network which the fixed voice service is riding on, faults which do not require a truck roll (i.e. an onsite visit to the customer's location such as the MDF room, distribution point and/or customer's home) and faults due to the customer premise equipment.