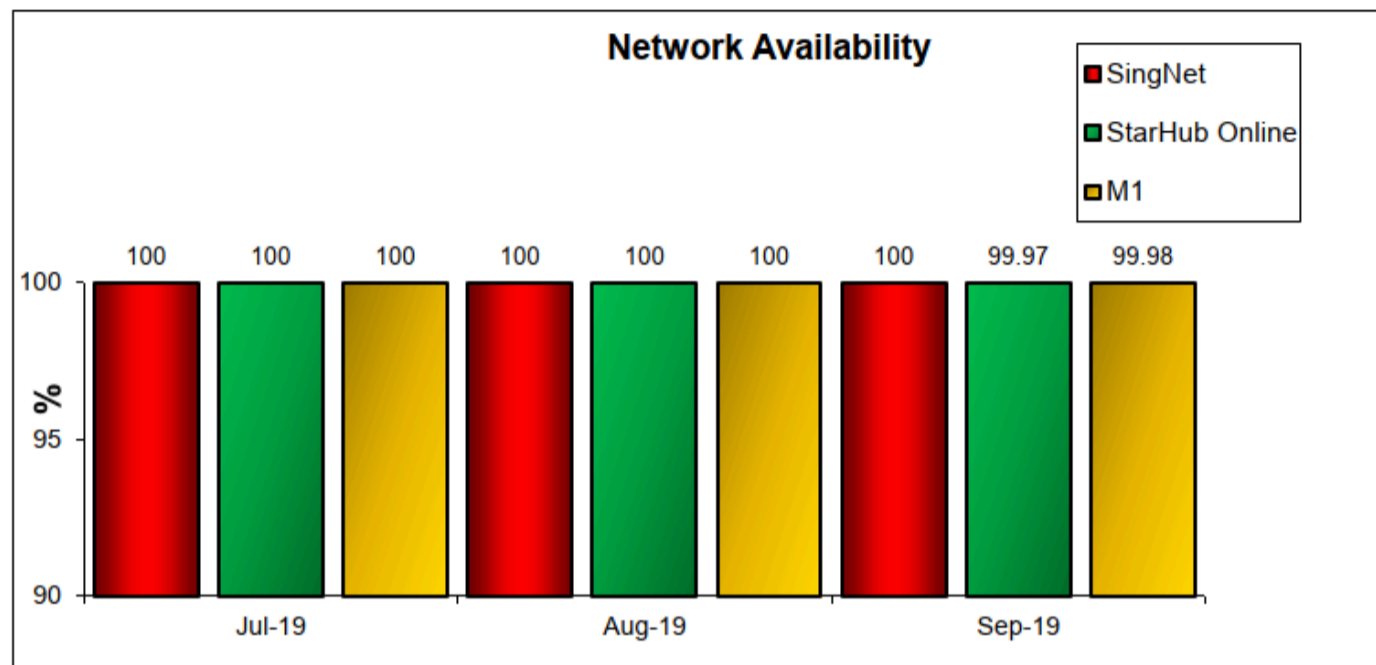


Broadband QoS Performance for Q3 2019

Quality of Service (QoS) Standards for Fibre Broadband Services for Jul – Sep 19 Quarter

1. Network Availability

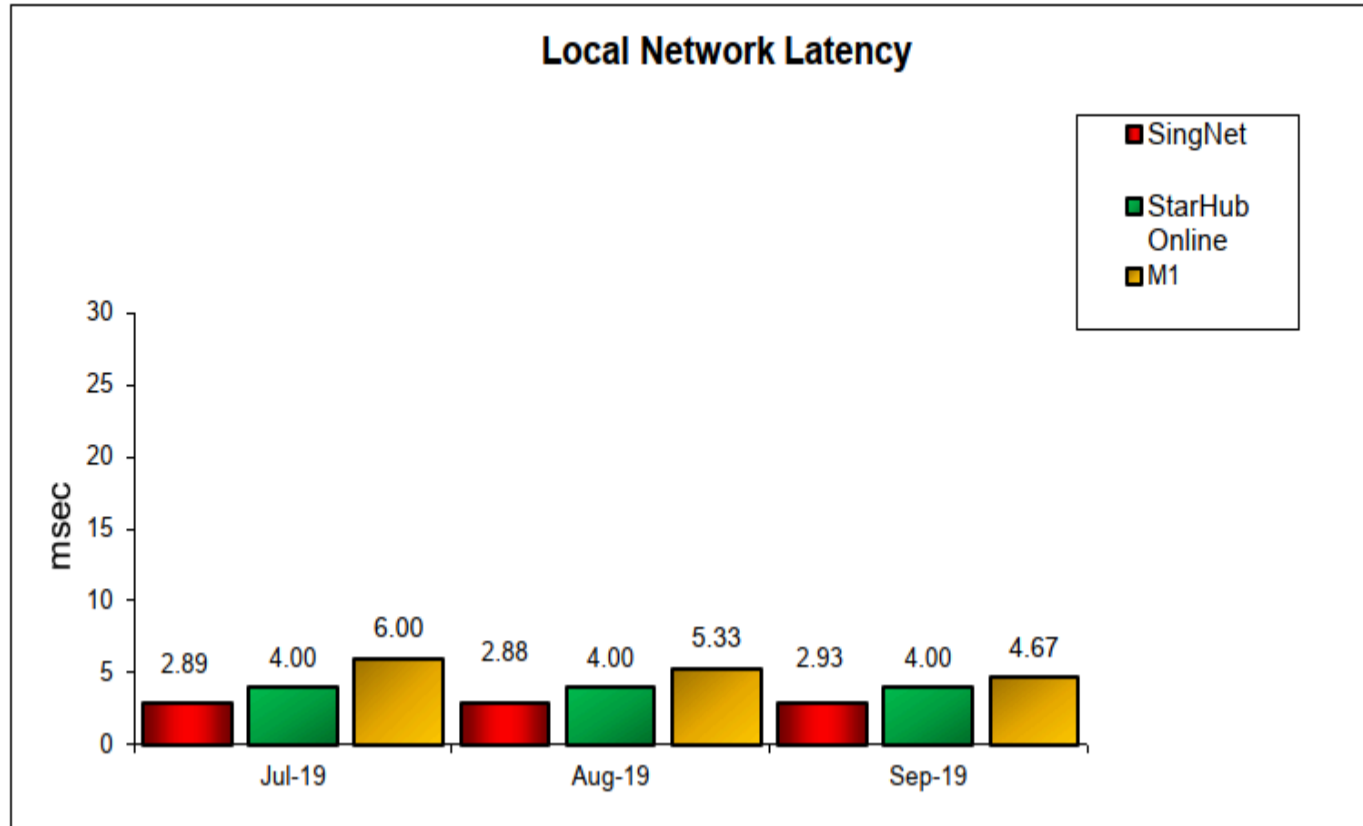


Network Availability is the measure of the degree to which the network is operable and not in a state of failure or outage at any point of time. It measures the total downtime of the network, including the Optical Line Termination (OLT), multiplexers, routers, email facilities (if provided) and connection to Internet Exchanges and/or Internet backbone over a month. All scheduled downtime for the purposes of maintenance and upgrading of the network system will be excluded from the calculation. However, all access network operators must keep their users informed of such maintenance times.

Network Availability = $[(\text{Total Operational minutes} - \text{Total minutes of service downtime}) / \text{Total operational minutes}] \times 100\%$

Results are rounded off to two decimal places. Therefore, a result of “100%” does not necessarily reflect that there was no service downtime in that month.

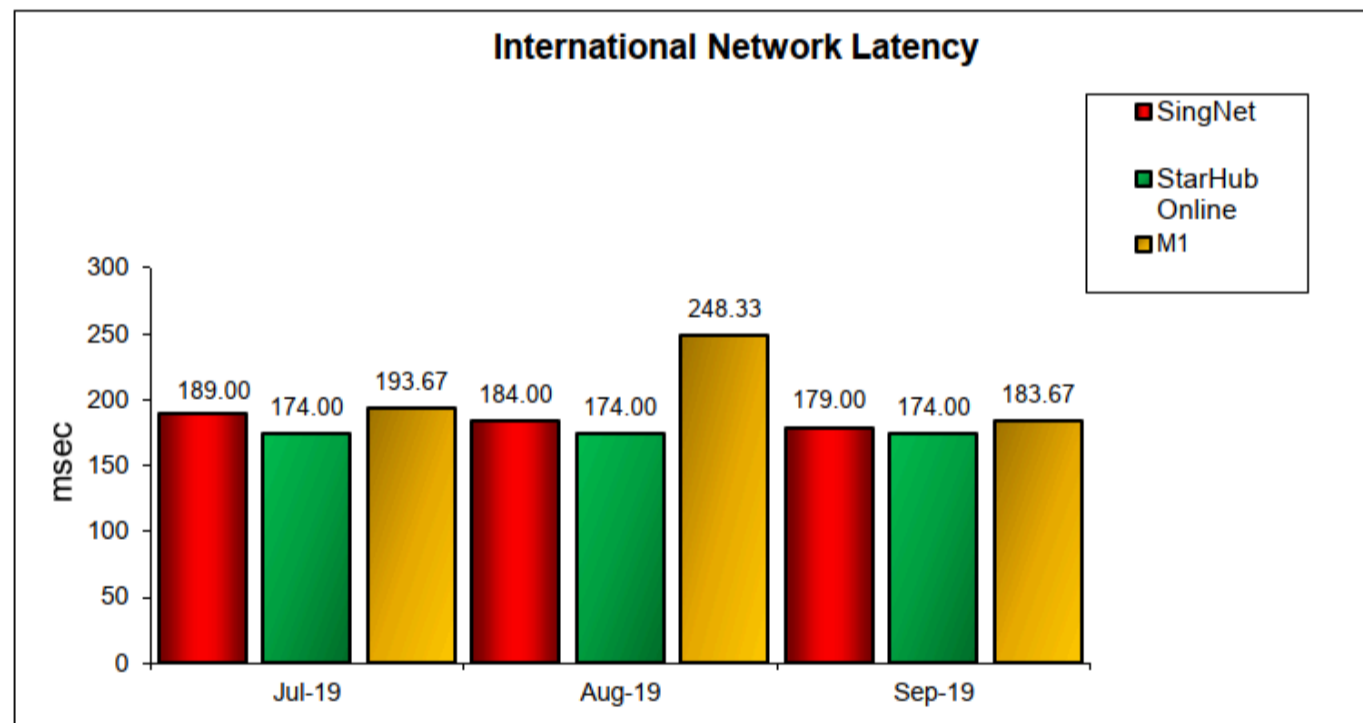
2. Local Network Latency



Local latency measures the round-trip time for PING packets to travel between the test clients in Singapore and the Broadband Access Service Provider’s (“BASP’s”) test node(s) in its local Point-of-Presence (“PoP”).

Results are rounded off to two decimal places.

3. International Network Latency

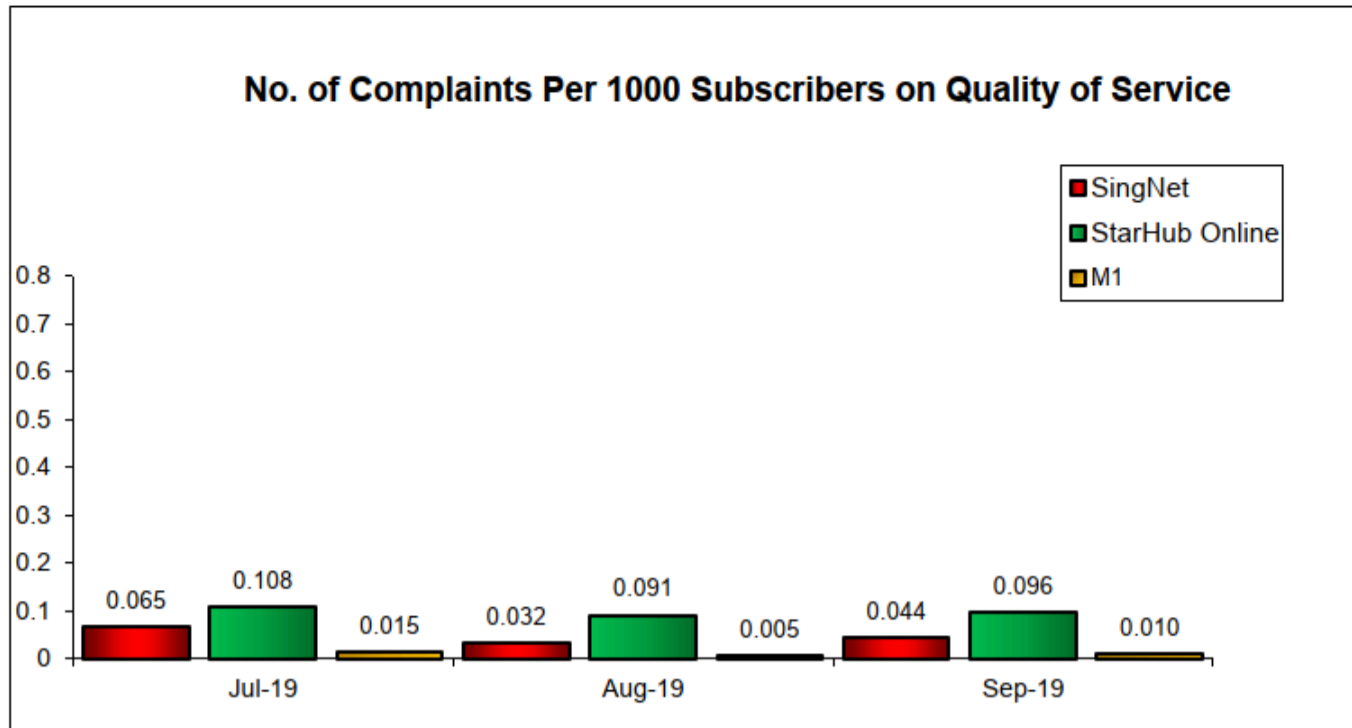


International latency measures the round-trip time for PING packets to travel between the test clients in Singapore and the BASP’s test node(s) in its first US PoP.

Results are rounded off to two decimal places.

4. Number of Complaints Per 1000 Subscribers





The term "complaints" is defined as any expression of dissatisfaction with the service providers' service, product, advertisement or policy via oral or written communication that requires some action by the service provider beyond the initial contact.

Results are rounded off to three decimal places. Therefore, a result of "0" does not necessarily reflect that there were no complaints on fibre broadband services in that month.