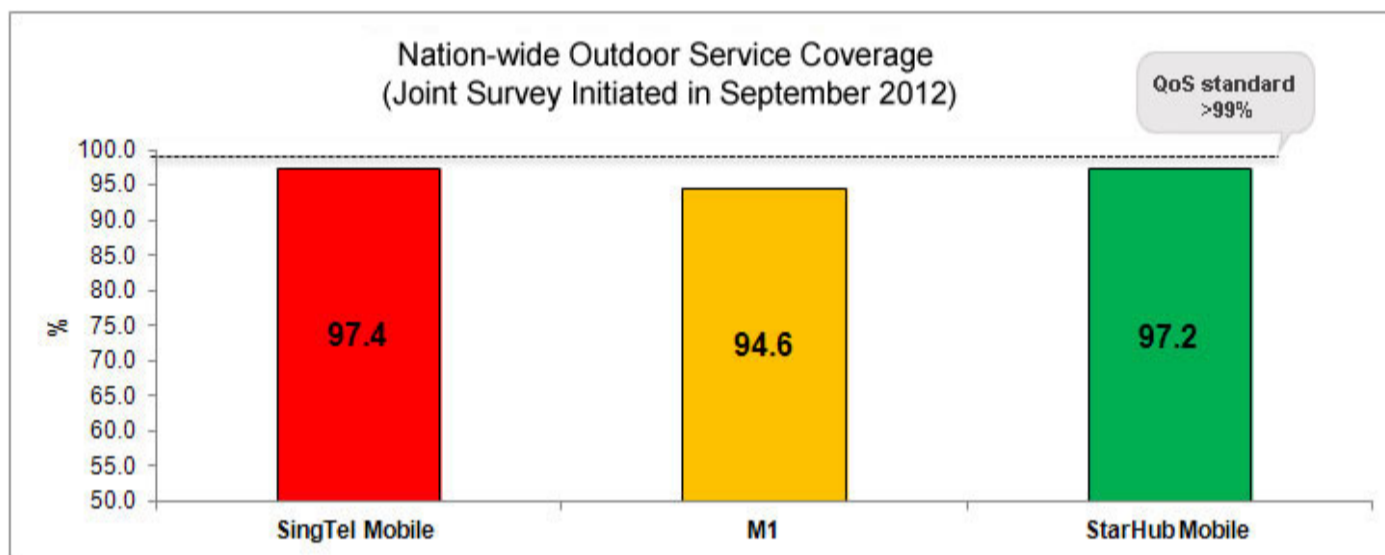


# Quality of Service (QoS) Standards for 3G Public Cellular Mobile Telephone Service (PCMTS)

## Nation-wide Outdoor Service Coverage (Joint Survey Initiated in September 2012)

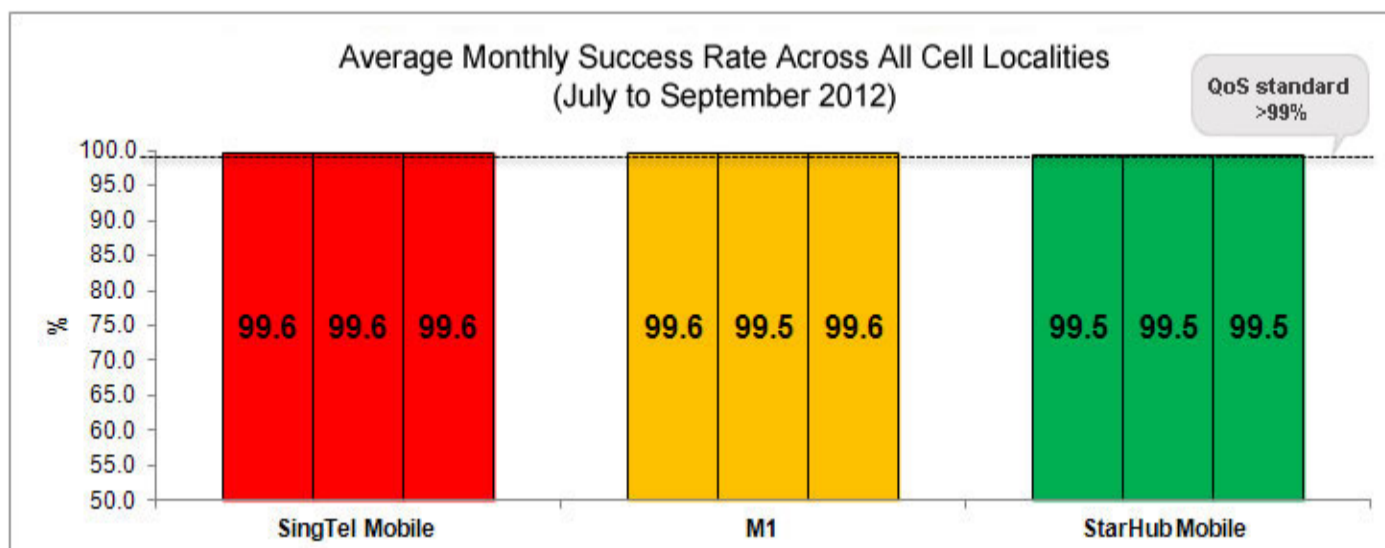
This indicator measures Nation-Wide Outdoor service coverage for the 3G cellular network. Service coverage is determined by signal strength. The availability of service coverage is the ability of a cellular network to achieve the minimum signal strength of at least -100dBm. An average of 524,875 signal strength sample readings are taken for each cellular network. Under IDA's 3G PCMTS QoS framework, mobile operators are required to achieve Nation-Wide Outdoor service coverage of >99%.



\*Based on IDA's independent tests which includes nation-wide outdoor drive test and areas such as housing estates/town centres, outdoor recreational areas and above ground MRT tracks.

## Call Success Rate

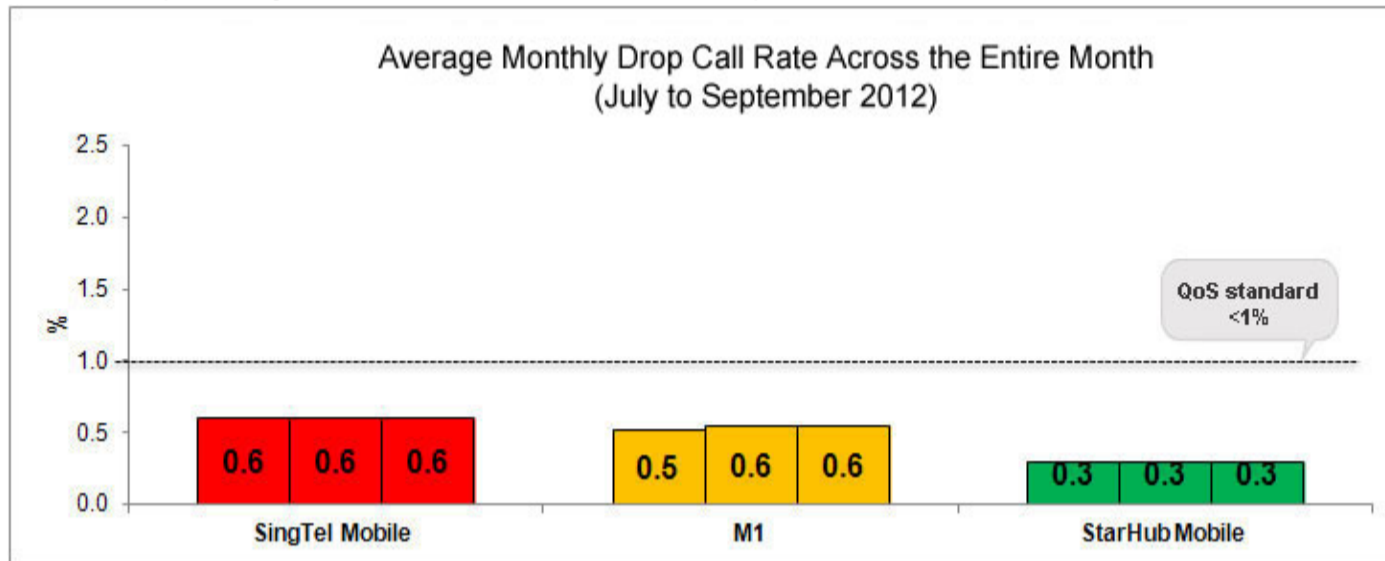
This indicator measures the percentage of successful call attempts made on the 3G cellular network. A call attempt is deemed successful when the calling party (the individual who makes the call) gets connected to the called party (the individual who receives the call) or receives a busy tone. Under IDA's 3G PCMTS QoS framework, the mobile operators are required to achieve >99% success rate (average across all cell localities during busy hour).



\*Based on mobile operators' actual network traffic logs

## Call Drop Rate

This indicator measures the percentage of unintended disconnection of 3G mobile calls by the cellular network during a 100 second call. Under IDA's 3G PCMTS QoS framework, mobile operators are required to achieve <1% drop call rate (average across the entire month).



\*Based on mobile operators' actual network traffic logs