	D/E/1/400
Case Reference	R/E/I/100
Title	SingTel Mobile, M1 and StarHub Mobile's Failure to Comply with IDA's Quality of Service Standards for 3G Mobile Services
Case Opened	18 July 2012
Case Closed	12 April 2013
Complainant	Enforcement action taken pursuant to the 3G Public Cellular Mobile Telephone Services (" PCMTS ") Quality of Service (" QoS ") Framework
Respondent	SingTel Mobile Singapore Pte Ltd ("SingTel Mobile"), M1 Limited ("M1") and StarHub Mobile Pte Ltd ("StarHub Mobile"), collectively the Mobile Telephone Operators ("MTOs").
Case Summary	IDA conducted a performance survey of 3G PCMTS nation-wide outdoor service coverage together with the MTOs in September 2012 (" Joint Survey "). The results of the Joint Survey showed that the MTOs failed to meet the required QoS standard for nation-wide outdoor service coverage of more than 99%. Specifically, SingTel Mobile, M1 and StarHub Mobile achieved 97.37%, 94.61% and 97.20% respectively.
IDA's Determination	IDA announced the revised 3G PCMTS QoS framework on 30 January 2012. The MTOs are required to comply with the revised 3G PCMTS QoS standards with effect from 1 April 2012. If an MTO is non-compliant with a standard under the 3G PCMTS QoS framework, a financial penalty of up to S\$50,000 per standard per month ¹ may be imposed.
	Under IDA's 3G PCMTS QoS framework, IDA may initiate a joint survey with the MTOs if there are significant differences between IDA's independent performance survey of the MTOs' performance and the MTOs' own submissions of their performance. The results obtained in the joint survey would be used to assess the MTOs' compliance with 3G PCMTS QoS framework for the month the joint survey is conducted.
	Arising from differences between IDA's first independent measurement results after the revision of the 3G PCMTS QoS framework and the MTOs' submission for nation-wide outdoor service coverage for April to June 2012, IDA initiated a second independent measurement with the MTOs in September 2012 (the Joint Survey) to re-validate the results.

Other than the tunnel service coverage indicator where a financial penalty of up to \$50,000 per quarter may be imposed.

The results of the Joint Survey showed that all three MTOs had failed to meet the QoS standard of >99% for nation-wide outdoor service coverage. IDA noted that the MTOs' non-compliance was primarily due to the more stringent and extensive measurement methodology employed by IDA following the implementation of the revised QoS standards. Besides measurements using the conventional drive test, IDA had also included measurements at housing estates/town centres, outdoor recreational areas including nature parks, which were carried out on bicycles and on foot, and at above ground MRT tracks.

For failing to meet the QoS standard on nation-wide outdoor service coverage in September 2012 based on the results of the Joint Survey, IDA decided to impose a financial penalty of S\$10,000 on each of the MTOs. In deciding on the quantum of the penalty, IDA took into consideration the more stringent QoS standard and the more stringent measurement methodology. IDA also took into consideration the fact that this was the first enforcement under the revised 3G PCMTS QoS framework.

The MTOs had sought IDA's reconsideration of its decision, raising concerns relating to the measurement and computation methodologies adopted by IDA, and also the challenges and obstacles they faced in enhancing nation-wide outdoor service coverage. After considering the MTOs' submissions, IDA decided to maintain its decision, on the grounds that most of the issues raised by the MTOs had been raised by the MTOs previously and determined by IDA when the 3G PCMTS QoS framework was finalised. IDA will continue to review and fine tune the measurement methodology where necessary to take into account technology development and ongoing operational considerations when measuring the MTOs' 3G network performance.