Case Reference	R/E/I/094
Title	Service Difficulty – SingTel Mobile's 3G Service Incident ("Service Difficulty Incident")
Case Opened	6 September 2011
Case Closed	23 May 2012
Complainant	IDA initiated this proceeding pursuant to the Code of Practice for Telecommunication Service Resiliency ("Code")
Respondent	SingTel Mobile Singapore Pte Ltd ("SingTel Mobile")
Case Summary	On 6 and 7 September 2011, a service difficulty incident occurred affecting SingTel Mobile's 3G network, which caused a number of SingTel Mobile's 3G customers to experience intermittent difficulties in the use of voice and data services, as well as SMS and MMS. At all times, 2G services were available. Based on IDA's investigation, IDA found that the Service Difficulty Incident lasted for a total of 22 hours and 11 minutes, comprising the following periods: (a) 12.58pm to 1.40pm on 6 September 2011; (b) 3.45pm on 6 September to 5.54am on 7 September 2011 (including a maintenance window between 0.00am to 5.54am to reboot the equipment); and (c) 12.21pm to 7.41pm on 7 September 2011. The Service Difficulty Incident affected approximately 25,000 SingTel Mobile 3G subscribers in some areas in central Singapore including Orchard, Telok Blangah, Tanglin and Alexandra. IDA found that more than 5% of SingTel Mobile's base stations were affected by the Service Difficulty Incident. IDA's investigations revealed that the Service Difficulty Incident was caused by a software glitch in the new Internet Protocol ("IP") switches that were being progressively installed on SingTel Mobile's network. The software glitch led to routing errors and random Media Access Control ("MAC") address flooding at the distribution switch, resulting in intermittent service disruptions. SingTel Mobile had continued with the deployment of the new IP switches during the period of the Service Difficulty Incident as its initial diagnosis did not indicate the new IP switches to be the cause of the service disruptions. In restoring the 3G services during the first two service disruptions, SingTel Mobile took steps to reboot the affected equipment during the maintenance window on 7 September 2011.

However, the service disruption occurred again subsequently. During the third service disruption, SingTel Mobile and its vendor support teams were able to trace the fault to the new IP switches and take restorative efforts to fully restore 3G services.

IDA's Determination

SingTel Mobile would be in breach of the Code for any service difficulty incident that exceeds a duration of one hour and affects an aggregate of 5% or more of its base stations. It would not be a breach of the Code if SingTel Mobile can establish to the satisfaction of IDA that the occurrence of the Service Difficulty Incident was not within its control and occasioned through no fault on its part.

In this case, IDA had noted SingTel Mobile's explanation that extensive testing was carried out prior to the deployment of the new IP switches and that the same IP switches were deployed by overseas operators without any service difficulty being detected. After reviewing the facts, IDA did not find SingTel at fault for the cause of the Service Difficulty Incident.

However, IDA found that SingTel Mobile had not exercised sufficient diligence to detect the root cause of the Service Difficulty Incident in a timely manner. IDA also found that SingTel Mobile should not have proceeded or continued with the installation of the new IP switches on 7 September 2011, in view of the extensive nature of the service disruptions that had already taken place and given that SingTel Mobile had yet to discover the cause of the problem after the restoration of services following the second service disruption.

In view of the above, IDA found that the Service Difficulty Incident could have been shortened and that SingTel Mobile had not established to IDA's satisfaction that it had no fault in relation to expeditiously restoring services as required under the Code. IDA therefore determined that SingTel Mobile was in breach of the Service Resiliency Code.

In determining the appropriate amount of financial penalty to be imposed on SingTel Mobile, IDA took into account all relevant factors, including the cause and nature of the Service Difficulty Incident, the duration of the incident, and relevant mitigating factors. This included the fact that SingTel Mobile's 2G services were not affected by the Service Difficulty Incident and that end users who took the step of switching from SingTel Mobile's 3G network to its 2G network were able to continue using their mobile telephone services.

Taking into consideration all of the above, IDA has imposed a financial penalty of S\$400,000 on SingTel Mobile. SingTel Mobile has sought IDA's reconsideration of its decision. Upon

reconsideration, IDA has decided to maintain its decision.