Re : Internet Service Disruptions Caused by Earthquake Damage to Several Undersea Cables

- An unprecedented outage…not just a single cable or satellite but a catastrophic outage of 7 undersea cables each with multiple breaks spread over 300km of ocean floor due to an earthquake and subsequent undersea landslides.

- PCCW has route diversity (i.e. capacity on multiple satellites and multiple undersea cables) and redundancy (i.e. capacity greater than actual demand) just in case of outages or demand surges.

- PCCW routes traffic via more than a dozen different routes as well as by time of day to match demand with capacity. PCCW routes traffic via different satellite systems, northbound undersea cable systems (i.e., toward Taiwan, Korea, Japan and North America), southbound undersea cable systems (i.e., toward Singapore/SE Asia, Australia, the Middle East and Europe) and overland through the Mainland. Undersea cable systems are the primary vehicle used due to their large capacity capabilities.

- PCCW does have contingency plans for system outages. Dynamic routing is employed to ensure service quality so that users do not see any difference when traffic outages or surges occur (except obviously in catastrophic outages). In PCCW's dynamic routing regime, traffic is re-routed when there is a planned or unplanned system outage, or traffic surge.

- PCCW believes that is has the most sophisticated system management arrangements with route diversity and redundancy in place.

- PCCW, working very hard with carriers in Hong Kong and around the globe, in just a few days restored all or almost all IDD, internet and IPLC services. Excess capacity was brought on line, new routes were established, and underutilized capacity received additional traffic. In particular, the assistance of Mainland carriers should be noted. Looking at how big the natural disaster was, it is important to note what we (and others) accomplished in just a few days.

- In parallel, our customer inquiry line is also now back to normal. During the last few days of December our inquiry calls increased by about 15-20%.

- Looking forward, while catastrophic natural disasters cannot be avoided, the question is what lessons have been learned. There are a few. First, PCCW and other carriers did promptly address and fix the problem, and can be relied upon in the future to do the same. There is no need for Government intervention. Second, additional investments by PCCW and other carriers in planned undersea cables will ensure route diversity and redundancy and make networks less susceptible to natural disasters. Third, since the market can be relied upon, PCCW certainly does not see a need for any compulsory shared carrier capacity arrangement. Fourth, it is important to be reminded that international undersea cable systems are thousands of miles in length and represent billions of dollars of investment. Government policies need to promote investment and allow for commercial returns. No free riders; no special policy or wholesale pricing favors for resellers.

In Summary

- PCCW's view is that the market can and does handle outages, even catastrophic ones. The Government should take no role other than preserving investment incentives and reporting to the public in cases of natural disasters as it did here.

- One should not lose sight of what was accomplished. That is, a catastrophic disaster occurred and services were substantially restored within a few days.