



3 Hong Kong gives its 4.5G service a boost by activating 5CC CA network technology ready for the new 5G era

Hong Kong, 22 March 2018 - 3 Hong Kong, the mobile arm of Hutchison Telecommunications Hong Kong Holdings Limited (HTHKH; stock code: 215), today took its existing 4.5G service a major step closer to the new 5G era by announcing official activation of 5CC (Component Carrier) carrier aggregation (CA) network technology.

This combines spectrum across 3 Hong Kong's 900MHz, 1800MHz, 2100MHz, 2300MHz and 2600MHz bands. Maximum speed achieved in a network trial reached up to 1.1Gbps following the move, together with deployment of advanced technologies such as 4x4 MIMO (Multi-Input Multi-Output), Massive MIMO and 256QAM (Quadrature Amplitude Modulation).

Users downloading a two-hour Netflix movie, 5GB game file or 50GB photo album from Google Drive via 5CC at a maximum network speed of 1.1Gbps will do more than seven times faster than when downloading via 1CC at a maximum speed of 150Mbps. The everyday examples in the table below demonstrate how 5CC advanced technology offers customers a significantly better overall telecommunications experience:

More than **7** TIMES faster

File type		File size	Download time *	
			5CC / 1.1Gbps	1CC / 150Mbps
4K movie	2-hour Netflix movie	13.5GB	1 min 38 secs	12 mins 17secs
	2-hour YouTube video	38.5GB	4 mins 40 secs	35 mins 3secs
HD music	5-min FLAC HD music	195MB	1 sec	10 secs
File	5GB game file	5GB	36 secs	4 mins 27 secs
	1GB Google Play Store update	1GB	7 secs	53 secs
	50GB photo album from Google Drive	50GB	6 mins 4 secs	44 mins 27 secs
	100GB Dropbox file	100GB	12 mins 7 secs	1 hour 29 mins
VR experience	Resolution:		4K	480p
	Frame rate:		120 frames per sec	30 frames per sec

**Time listed is the shortest time in theory. Actual downloading duration varies according to many factors such as location of a user, functionality of device used, application server and content service bandwidth, latency, compression ratio and so on.*

3 Hong Kong had already completed re-farming of the 2100MHz spectrum band to provide 4.5G service and became the only local operator to provide 4.5G service simultaneously via spectrum across five different bands.

Both 3 Hong Kong's network speed and coverage were enhanced and spectrum efficiency fully utilised following today's official activation of 5CC CA network technology. The move also coincides with launch of the Samsung Galaxy S9 and S9+, which are the first to be compatible with 5CC and work in conjunction with the new technology to deliver a smooth and high-speed mobile experience.

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About 3 Hong Kong

3 Hong Kong is a leading mobile communications service provider and the only local operator to own blocks of spectrum across the 900MHz, 1800MHz, 2100MHz, 2300MHz and 2600MHz bands. 3 Hong Kong offers cutting-edge data, voice and roaming services under the "3" brand via far-reaching advanced 4G LTE, 3G and 2G networks. 3 Hong Kong also works with renowned partners to offer a wealth of innovative mobile devices and value-added services, while providing high-speed Wi-Fi at 3 Hong Kong's hotspots to serve Hong Kong's major areas. 3 Hong Kong is the mobile division of Hutchison Telecommunications Hong Kong Holdings Limited (stock code: 215), a group member of CK Hutchison Holdings (stock code: 1).

For more information on 3 Hong Kong, please visit www.three.com.hk.
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