

# Operations Review



3 serves Hong Kong and Macau by delivering innovative services through advanced mobile networks - all in customer-centric fashion.

## Network Excellence is 3 Hong Kong's Primary Focus

3 Hong Kong is the only local operator commanding a wide variety of spectrum in the 900MHz, 1800MHz, 2100MHz, 2300MHz and 2600MHz bands, and has been re-farming spectrum to maximise bandwidth efficiency in response to changing data usage patterns among customers. During 2017, 3 Hong Kong reformed 2100MHz spectrum. With the completed reform exercise and network enhancement, all five bands of spectrum are now available for service, enabling 3 Hong Kong to meet rising data demand.

3 Hong Kong provides customers with a seamless mobile experience by combining 1800MHz, 2100MHz, 2300MHz and 2600MHz spectrums with Frequency Division Duplex (FDD) and Time Division Duplex (TDD) five Component Carriers (5CC) Carrier Aggregation (CA) technologies, as well as 4 × 4 Multi-input Multi-output (MIMO) and 256 Quadrature Amplitude Modulation (QAM) technologies.

A two-phase project that monitors network traffic, while deploying the latest technologies and applications, was launched throughout 18 busy MTR station concourses and platforms, as well as tunnels, during 2017. Completion is scheduled for 2019. This will increase capacity such that customers will enjoy an even smoother mobile experience.

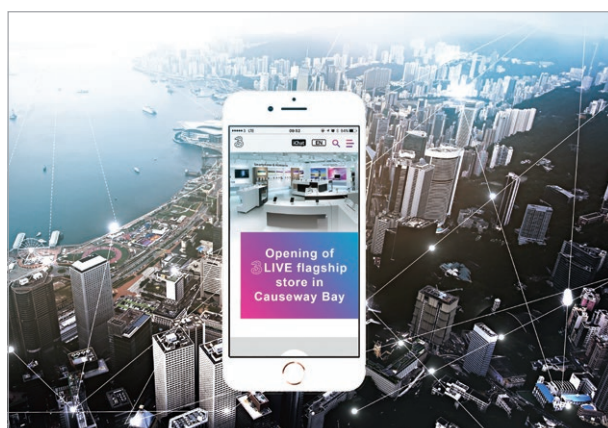


Our NB-IoT network now extends throughout Hong Kong and is ready for commercial applications.



3 Hong Kong is transforming itself by utilising the latest technologies to maximise engagement with customers through various digital channels. The idea is to provide a uniquely, personalised and caring service that will promote a better understanding of customers and help to generate new revenue streams.

3 Hong Kong is deploying 5G technology and upgrading existing network architecture as the industry moves steadily towards 5G and the era of IoT. The Group has conducted research and trials using technologies involving small cells, network cloudification, network function virtualisation and Massive MIMO. These efforts will better equip 3 Hong Kong to meet customer demand once the 5G standard and Hong Kong's spectrum plans are confirmed.



3 Hong Kong is deploying 5G technology and upgrading existing network architecture as the industry moves towards the 5G era.

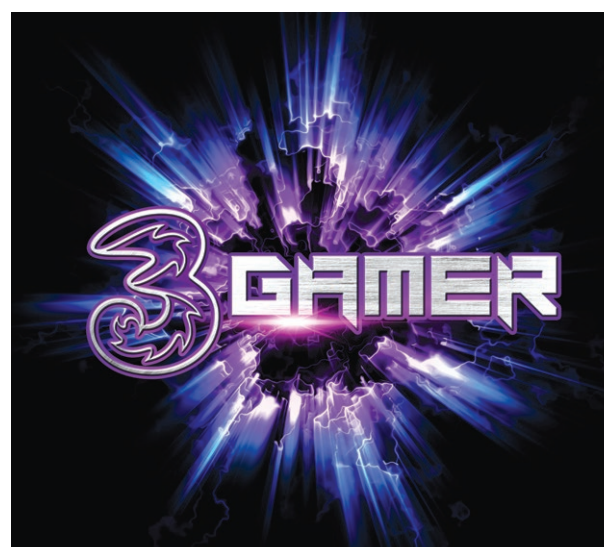
NB-IoT is the future, prompting 3 Hong Kong to construct end-to-end infrastructure featuring NB-IoT modules designed in accordance with the 3rd Generation Partnership Project standard. In this regard, 3 Hong Kong supports start-ups and is establishing a local NB-IoT ecosystem that will provide innovative commercial NB-IoT applications and promote value creation for the business community, while preparing 3 Hong Kong for a new era of massive connectivity through 5G technology.



"3InnoCity" is a free certified NB-IoT specialist programme for the benefit of start-ups.

### Innovative Gaming Products and Services

The role of mobile operator changes constantly, especially in the IoT era. For example, 3 Hong Kong has entered the gaming market with Razer - the leading lifestyle brand for gamers - to serve a new generation of customers by combining network service excellence with advanced gaming systems. A range of tariff plans bundled with Razer's gaming devices have been tailored to provide a superior gaming experience.



Launch of the "3Gamer" portal enables customers to play thousands of online games from our business partners through a single portal.



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In December 2017, 3 Hong Kong became the first local mobile operator to launch Razer handset devices that enabled gamers to enjoy new functionality designed to maximise mobile entertainment.

After collaborating with Razer to capitalise on the latest eSports trend, 3 Hong Kong continued to search for attractive gaming propositions. Launch of the 3Gamer portal enabled customers to play thousands of online games offered by our business partners through a single portal, while taking advantage of game credit promotions. Customers can top-up mobile plans and buy PC game credits to enjoy bonus privileges.

3 Hong Kong aims to become the preferred mobile operator among gamers, while collaborating with world-class partners in order to offer the hottest gaming products and services. Gamers will then be able to follow trends and take advantage of a succession of offers from 3 Hong Kong.

### Tailored Roaming Packages

In order to meet the needs of travellers, 3 Hong Kong has introduced a variety of roaming packages including the Roam-in-Command service which covers 21 popular travelling destinations. Customers can roam hassle-free in Europe, the Americas, Greater China and other parts of Asia Pacific.



3 Hong Kong offers a variety of roaming packages to suit frequent travellers.

Close ties between CKHH Group's 3 Group and relationships with other global carriers are helping 3 Hong Kong develop value-for-money roaming packages offering extensive overseas coverage to meet customer needs. This means customers can stay connected with friends and family with the utmost ease.

In addition, 3 Hong Kong offers a Europe Roaming Pass that allows unlimited data roaming and voice calls at popular European destinations for five or 10-day periods.



3 Hong Kong opens the 3LIVE flagship store in Causeway Bay as a hang-out for digital citizens.

3 Hong Kong also launched the 3RoamLite Pass and WhatsApp Roaming Pass for low-usage customers seeking budget mobile data options when travelling.

### Creative Data Packages

During 2017, 3 Hong Kong introduced a new and flexible Cross-Month Top-up data package that allows customers to enjoy peace of mind by buying top-up data which can last up to 12 months.

In the fourth quarter of 2017, the Fun Sharing Monthly Plan was launched to allow data entitlements to be used in mainland China, Hong Kong and Macau with an additional optional Mainland China mobile number.

### Passionate Customer Service

A succession of campaigns and initiatives last year promoted the premium mobility experience of 3 Hong Kong. For example, a new 3LIVE flagship store of more than 5,000 square feet was opened in a prime location to promote the brand's attributes of innovation, stylishness and energy – all alongside 3 Hong Kong's customer-centric service.

In 2017, 3 Hong Kong launched the 3Rewards customer loyalty scheme. The Group aims to delight loyal customers with special treats and privileges every year, with a view to strengthening existing relationships and acquiring new customers.



The 3Rewards loyalty scheme delights customers with special treats and privileges.

The same customer-centric philosophy is exemplified by the online and digital support we offer. Online video promotions help strengthen our brand positioning, while other examples include the 24/7 3iChat customer interface under web and application platforms to facilitate a friendly rapport.



In 2017, 3 Hong Kong launched the new My3App to facilitate customer access to various self-help services from an integrated platform. They can connect with 3 Hong Kong periodically to get useful information on topics such as data usage, topping up and tariff plans, while managing their account details and purchasing roaming packages.

### Macau

3 Macau continues to launch innovative data offerings, as well as appealing IDD and roaming services, in order to attract yet more of the city's high-value smartphone users. Tri-city tariff plan was launched to allow data sharing in Macau, Hong Kong and mainland China for frequent travellers in these locations.

December 2017 saw continued enhancement of 4G LTE coverage serving all major hotels, casinos, business districts and other busy locations such as the Hong Kong-Zhuhai-Macao Bridge infrastructure project.

3 Macau is committed to continuous improvement of customer service and network quality – preparing the way for subscription growth and higher volumes of local and roaming traffic.