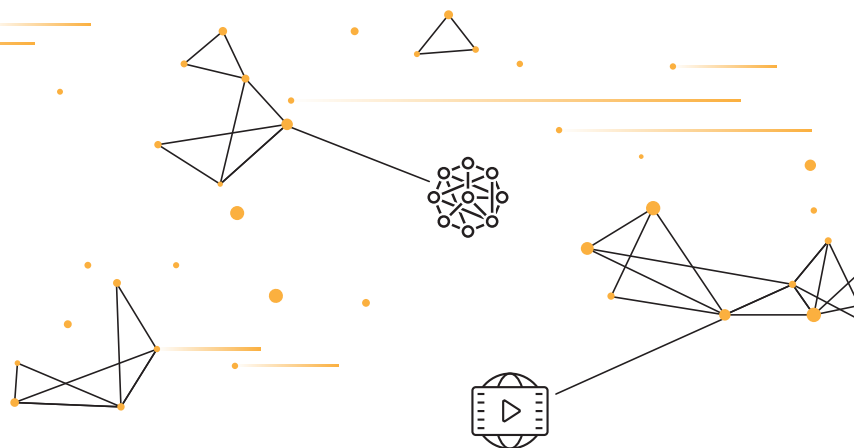


# Operations Review

**3** Hong Kong promotes Hong Kong as a smart city in preparation for the 5G era and a new digital internet economy.

# Operations New Era



The lives of our customers will become increasingly more digital in the new era of 5G. Eager to capitalise on this opportunity, 3 Hong Kong is transforming into a digitally-enabled organisation to improve the overall customer experience as part of a masterplan to drive take-up of subscriptions and revenue growth.

## Digital Transformation

A digital transformation project has been designed to streamline and automate internal business processes. Key areas covered include customer relationship management, omni-channel and intelligent marketing campaigns, sophisticated product catalogue and order management, enterprise business workflows, digital commerce with convergent billing, comprehensive data analytics and enhanced security.

This transformational journey will enable 3 Hong Kong to respond swiftly to market demands for provision of lifestyle-enhancing services. Advancements in analytics will provide 3 Hong Kong with real-time, predictive and

actionable insights, enabling the Group to demonstrate even greater agility when responding to dynamic customer needs.

## Promoting Hong Kong as a Smart City

3 Hong Kong promotes Hong Kong as a smart city in preparation for the 5G era and a new digital internet economy. Mobile payment has become a global trend at a time when 3 Hong Kong is keen to reap the benefits of FinTech applications and services. In 2018, for example, 3 Hong Kong offered an ewallet payment facility in collaboration with a global technology and financial services company. This collaboration now provides a secure and simple everyday facility that grants customers hassle-free convenience.

In 2018, 3 Hong Kong entered into strategic co-operation with a global technology company to develop an ecosystem that underpins Hong Kong's new digital internet economy. The move adds impetus to Hong Kong's development as a smart city. 3 Hong Kong's competitive



- A four-phase digital transformation project will transform our business operations and enable 3 Hong Kong to achieve an even greater degree of interaction with customers.

advantage in terms of branding, sales channels and operational experience - coupled with a vast pool of big data from a large-scale customer base - will help produce applications for enterprises of all sizes, as well as consumer customers.

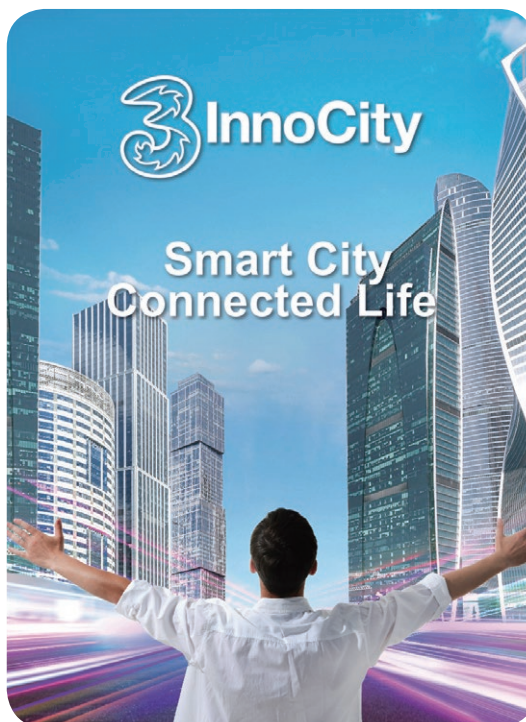
The cloud platform collaboration with this global technology company will help enterprises transform their operations, while creating new business models, opening up fresh revenue streams and generating more opportunities. This will also help accelerate Hong Kong's journey to smart city status.

### Propagating a New Digital Internet Economy Ecosystem

The IoT concept is crucial to the development of our industry. And 3 Hong Kong's NB-IoT network now extends throughout Hong Kong and is ready for commercialised applications, following activation in 2017. The Group draws on a worldwide ecosystem in order to build IoT platforms for homes, cities and industries. In 2018, 3 Hong Kong joined hands with solution partners to roll out related NB-IoT solutions for several smart buildings and construction companies.

3 Hong Kong collaborates with start-ups and other sources of talent to develop and promote enterprise IoT solutions with the aim of building an IoT ecosystem. In fact, 3 Hong Kong launched the 3Innocity programme with a view to bringing together innovative technology research companies to accelerate development of related applications. 3 Hong Kong selected projects with market potential and provided companies concerned with network, technology and promotional support. This arrangement also nurtures start-ups in the development of innovative IoT solutions.

In 2018, 3 Hong Kong hosted the Hong Kong Smart Enterprise Digital Summit, which was themed "digital transformation and smart city development". This saw executives and industry leaders from commercial sectors joining forces to exchange ideas and experience in deploying IoT and big data solutions.



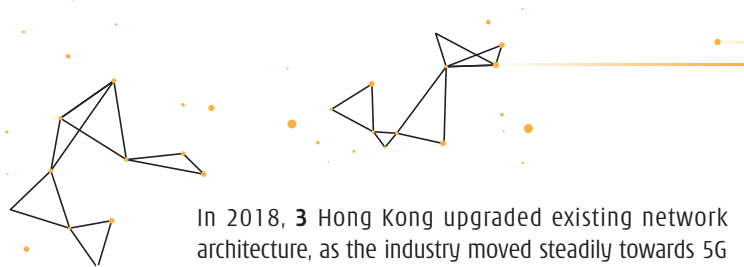
3 Hong Kong supports 3Innocity projects, enabling companies and researchers to reap the benefits of NB-IoT networking.

### Network Excellence

3 Hong Kong is committed to re-farming spectrum to maximise efficiency. Re-farming of the 2100 MHz band was completed in 2018 to enhance 4.5G network capacity and coverage. This helps satisfy ever-increasing demand for data service. 3 Hong Kong is now the only local operator to own blocks of spectrum across the 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2600 MHz bands.

The existing 4.5G service run by 3 Hong Kong took a major step towards the 5G era with official activation of 5CC (Component Carrier) carrier aggregation (CA) network technology. This combines spectrum across 3 Hong Kong's five spectrum bands alongside deployment of advanced technologies such as 4x4 MIMO (Multi-Input Multi-Output), Massive MIMO and 256QAM (Quadrature Amplitude Modulation). Network speed and coverage were enhanced, plus a boost to spectrum efficiency.





In 2018, 3 Hong Kong upgraded existing network architecture, as the industry moved steadily towards 5G and the era of IoT. 3 Hong Kong completed 5G outdoor network trials in the 3.5 GHz and 28 GHz bands and was the first to make a live outdoor broadcast via a 5G network in Hong Kong.

Construction of a “telco cloud” began at the end of 2016, as part of 3 Hong Kong's core network architecture. This will enable flexible deployment of network resources and in accordance with the types of services being utilised by customers with differing needs. 3 Hong Kong's “telco cloud” is highly resilient and capable of providing even greater network stability.

3 Hong Kong was the first operator to announce completion of a network to serve the local section of the Hong Kong-Zhuhai-Macao Bridge (HZMB). Our 4.5G network covers the bridge's deck and surrounding facilities, and was ready to provide high-speed mobile service the moment traffic began to roll. In addition, 3 Hong Kong completed network deployment for local section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link.

In 2018, the Group acquired spectrum resources in the 900 MHz band and 1800 MHz band for a total consideration of HK\$2,040 million. This acquisition represented the Group's effort in continuous network infrastructure enhancement, while ensuring customers continue to enjoy smooth and stable mobile service, coincide with the surging mobile data usage and demands.

### A Passion for Customer Service

A succession of campaigns and initiatives in 2018 promoted 3 Hong Kong's premium mobility experience. The same customer-centric philosophy is exemplified by the online and digital support we offer. Our My3 mobile



- 3 Hong Kong completes successful 5G outdoor trials in the 3.5 GHz and 28 GHz bands, and conducts Hong Kong's first live 5G outdoor broadcast.

application and company website were revamped to offer more user-friendly features that facilitate a closer rapport with customers, while simplifying the process of finding services.

### Pioneering Tariff Packages

In order to meet the needs of frequent travellers in mainland China and Macau, 3 Hong Kong launched the mainland China-HK-Macau plan to share data entitlements throughout these areas. The plan also includes worry-free cross-border use of WhatsApp and WeChat so customers can stay connected.

In 2018, 3 Hong Kong joined forces with a local FinTech pioneer to launch the 3Money New Phone and Cash Plan.



- 3 Hong Kong is the first to announce completion of a 4.5G network to serve the local section of the Hong Kong-Zhuhai-Macao Bridge.



- Network deployment for the local section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link completes promptly to provide high-speed mobile service the instant it is needed by travellers.

A 24-hour online application process via mobile handset enables 3 Hong Kong customers to subscribe to tariff plans that come complete with designated smartphone models – but without having to make payment upfront. At the same time, customers can opt for a cash loan of up to double the total contract value. The package introduces a new consumer financing solution by combining a conventional purchasing experience with an innovative FinTech facility.

### Tailored Roaming Packages

Close ties between 3 entities and CKHH Group, as well as relationships with other global carriers, are helping 3 Hong Kong to develop value-for-money roaming packages offering extensive overseas coverage. Customers can stay connected with friends and family as if physical boundaries did not exist.

3 Hong Kong is committed to developing and launching roaming products and services that meet customer needs in an ever-changing market. In this regard, the Group activated an NB-IoT roaming capability to meet demand created by rising export sales activity among corporate customers. Devices with NB-IoT chips embedded can be connected in countries where NB-IoT roaming-enabled networks are available. This now allows enterprises to explore business opportunities overseas.

In a move to accommodate travellers, 3 Hong Kong introduced a variety of roaming packages such as Roam-in-Command to cover popular destinations. Customers can now roam hassle-free while in Europe, Asia Pacific, the USA and Canada. 3 Hong Kong also launched the 3RoamLite Pass for low-usage travellers seeking budget mobile data options.

In 2018, 3 Hong Kong launched an in-flight roaming pass that enables customers to stay online even in air travel.

### Macau Developments

3 Macau continues to launch innovative data offerings, as well as appealing roaming solutions to attract yet more of the city's high-value smartphone users. Examples included tri-city (Macau-HK-China) pool sharing plans.



- New tariff plans enable data entitlements to be shared throughout mainland China, Hong Kong and Macau to create a seamless communications experience.

December 2018 saw continued enhancement of 4G LTE coverage serving all major hotels, casinos, business districts and other busy locations including the HZMB.

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 in future.



**3Money**

- 3Money's "New Phone and Cash Plan" enables customers to get a new flagship handset and cash loan – all in one go.