

INTERNATIONAL REGULATORS FORUM
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First Session on 4 October 2021:
Secure mobile networks of the future – how are regulators
preparing for/responding to new phenomena

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Introduction

Thank you, Dr. Eschweiler. Fellow regulators, ladies and gentlemen, good afternoon.

2. Thank you of having me in this session. I am glad to see you all again at the International Regulators' Forum as organised by IIC. While it is a pity that we still cannot meet fact-to-face for two consecutive years, the online arrangement once again demonstrates the indispensable role of telecommunications in keeping the world running and connected.

5G Services in Hong Kong

3. To start with, I would like to briefly introduce the progress of Hong Kong in terms of 5G network development. Up to this moment, 5G networks already cover over 90% of the population in Hong Kong. Basically, all the business districts and metro stations have 5G coverage. The penetration of 5G subscriptions is in the order of 20% by now. And, there is a great variety of 5G service plans offered by operators with the monthly tariff as low as US\$ 20 for 10 GB of mobile data.

Timely Release of 5G Spectrum

4. As one of our regulatory strategies, we are always minded to release radio spectrum to the market as early as possible. We have assigned about 2 000 MHz of new spectrum in the mid- and high-frequency bands for 5G two years ago. And, we are now actively preparing for a mega auction to be held

later this month. The second batch of 5G spectrum in frequency bands of 600, 700 and 850 MHz as well as 2.5 and 4.9 GHz will be assigned through the coming auction.

Security Issues in 5G Era

5. The 5G networks with increased capacity and extended coverage are not just to connect people anytime and anywhere. They are also used for ultra-reliable communication and mission critical applications such as intelligent transport systems and remote surgery. As such, network reliability and security is of increasing importance.

6. In Hong Kong, the telecommunications regulatory regime is based on technology neutral and market driven principles, which allow network operators to adopt network models of their own choices. In other words, network operators may freely shift from traditional radio access network (RAN) to Open-RAN. However, with adoption of open interfaces and open source codes, together with the use of products from multiple vendors, it is essential for operators to ensure their network performance and security.

7. In this regard, we have updated our security guidelines for next generation networks in the light of the development of 5G and emerging technologies including network slicing, network functions virtualisation (NFV), software defined networking (SDN) and edge computing. Practical guidance is offered to the industry with reference to the latest international standards, specifications and best practices adopted in other advanced economies. We will continue to work closely with the industry and international organisations as well as keep in view the latest development on new technologies and network models.

8. As enabled by 5G, there is massive deployment of Internet of Things (IoT) which underpins smart city development. To ensure secure and efficient operation of IoT devices across networks, we developed and issued a code of practice (i.e. Code of Practice on Operation and Management of IoT Devices) to set out the best practices for equipment suppliers to observe. For consumer protection, we issued a set of consumer advices on the use of IoT devices to remind the general public for better protection of their data when using such devices.

9. To address security risks, Computer Emergency Response Team Coordination Centre (HKCERT) has been set up in Hong Kong to collect intelligence and reports on network security related incidents such as malware, web defacement, phishing, scam, denial of service attack and other information security threats. The organisation coordinates responses on security incidents and issue advices on measures in relation to cyber security attacks. It also provides timely warnings to the public and conduct relevant public education.

Concluding Remarks

10. The above is a quick overview of some measures that we have taken to promote development and security of mobile networks in a new ecology made possible by advanced mobile technologies like 5G and beyond. I am happy to exchange views with other panel members and participants in the following discussion on the topic. Thank you!

Office of the Communications Authority, Hong Kong

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