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The Office of the Communications Authority, Hong Kong

WIRELESS SECTOR GROWTH IN HONG KONG

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Wireless Sector Growth in Hong Kong

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Linda Yu

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Major Mobile Milestones



1984

Introduction of analogue mobile services

Jan 1993

Launch of GSM services



Apr 1998

Full digitalisation of the mobile networks



Mar 1999

Implementation of mobile number portability



Nov 1999

At 3 million, mobile subscribers surpassed the number of fixed line users



Jan 2004

Launch of 3G services 

Nov 2010

Launch of 4G-LTE services

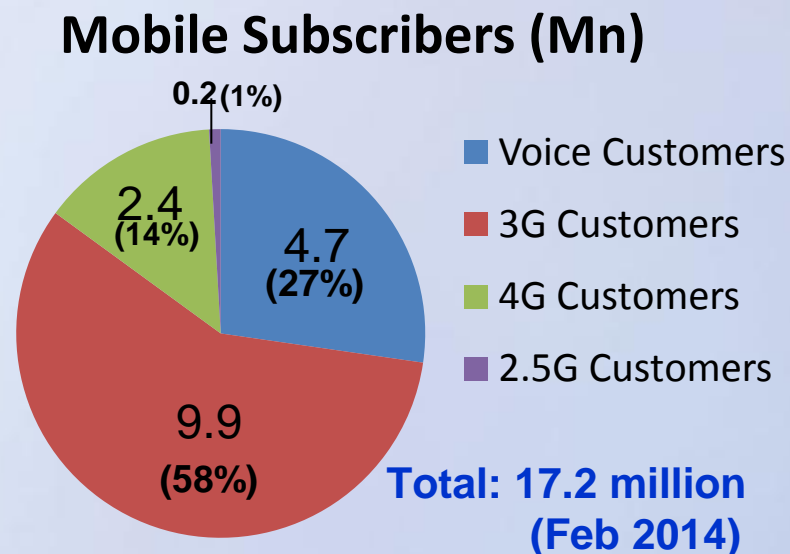


The Mobile Market Scene

- Hong Kong, China hosts one of the most competitive mobile market in the world



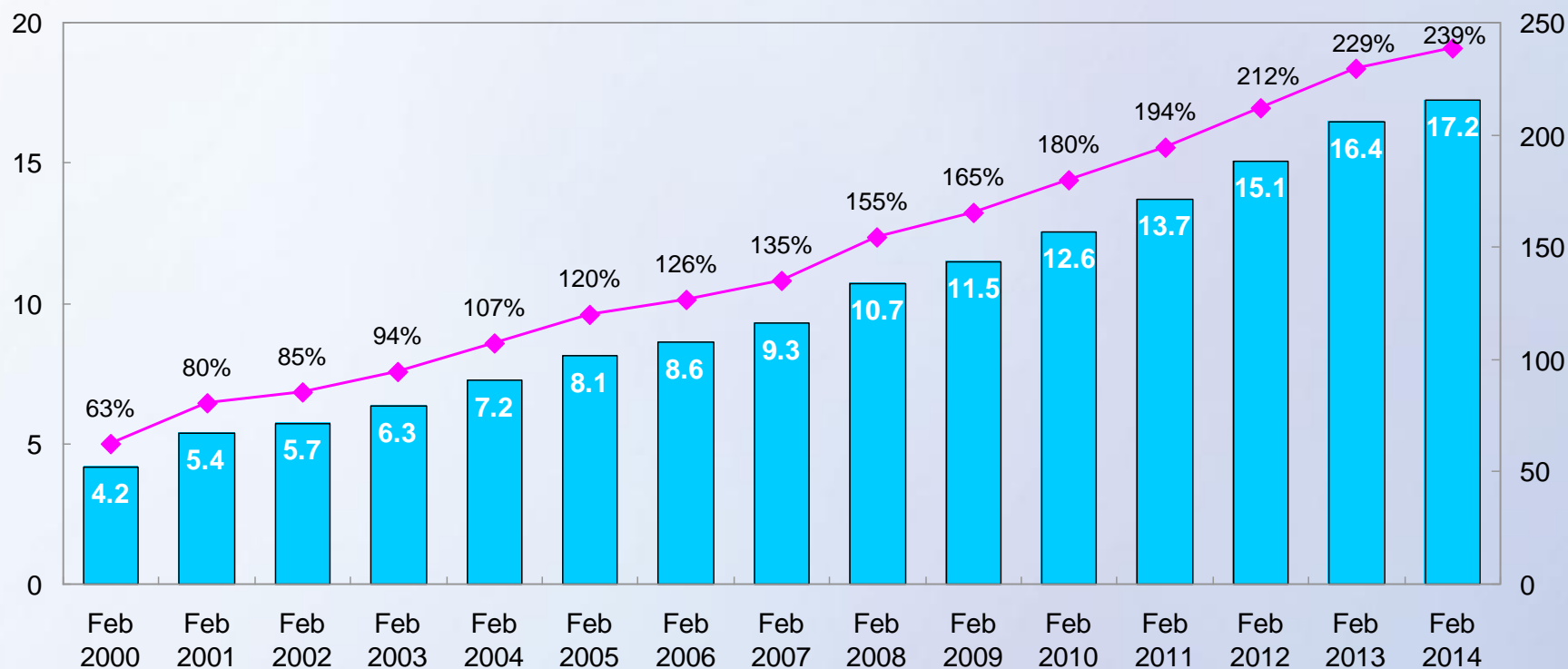
Competitive Mobile Service Charges		
US\$15 500MB data	US\$16 1GB data	US\$28 5GB data



Mobile Subscribers and Penetration Rate

Mobile subscribers
(million)

Penetration rate
(%)



Facilitating Role of the Government

✚ Spectrum Policy Objectives

- Facilitate the most economically and socially efficient use of spectrum
- Achieve technically efficient use of spectrum
- Fulfil Hong Kong's regional and international obligations relating to the use of spectrum
- Strengthen Hong Kong's strategic position as a world city and the gateway between the Mainland of China and the world

✚ Spectrum release plan to be updated annually

- Upon market indication of interest in the vacant frequency bands, the Communications Authority ("CA") may invite express of interest from potential bidders

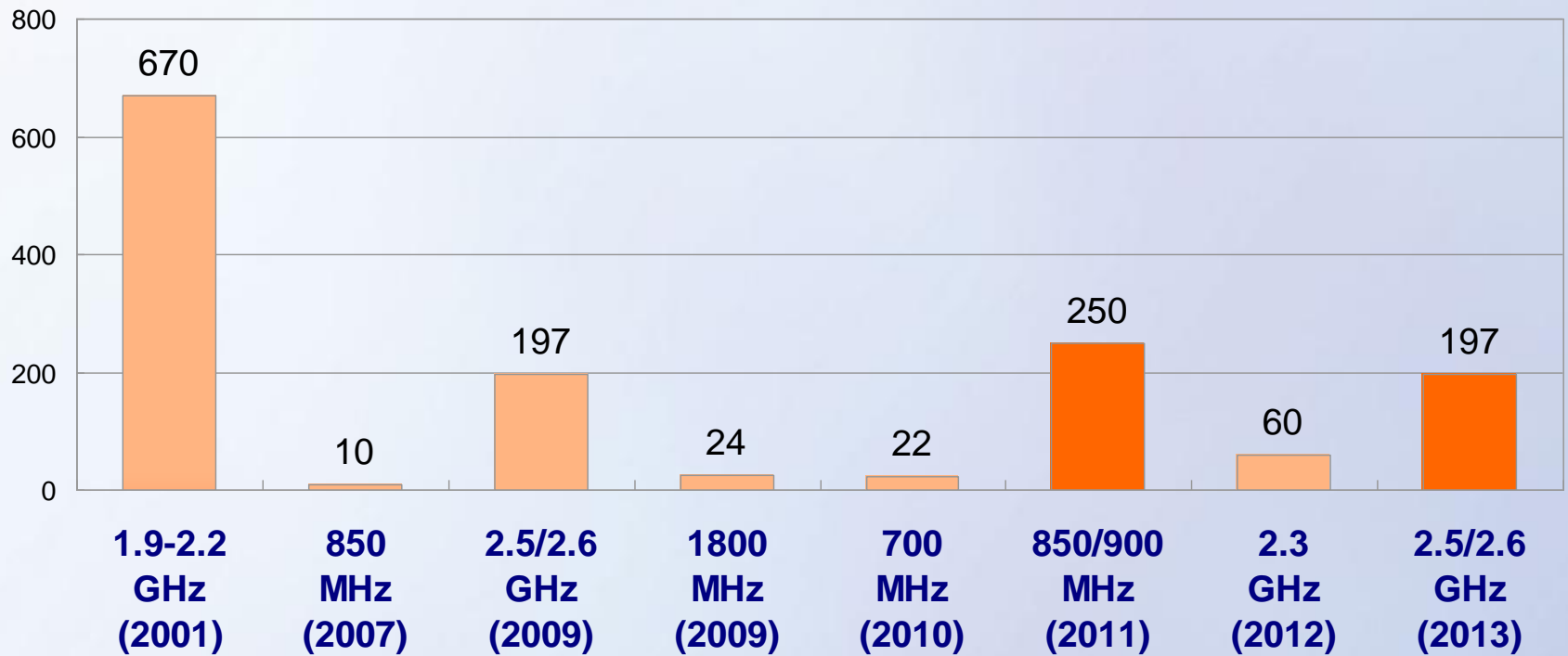
Facilitating Role of the Government

- ✦ Advance notice to be given to spectrum assignees
 - Spectrum assignment to be renewed with different frequencies assigned or not to be renewed upon expiry
 - Spectrum assignment to be varied or withdrawn before expiry

- ✦ Spectrum pricing to ensure efficient use of the frequency spectrum
 - Spectrum utilisation fee (“SUF”) to be determined by auction or other market mechanism
 - For spectrum administratively assigned, SUF set to reflect the opportunity cost of the spectrum

Past Spectrum Auctions

Total spectrum
utilisation fee
(US\$ Mn)



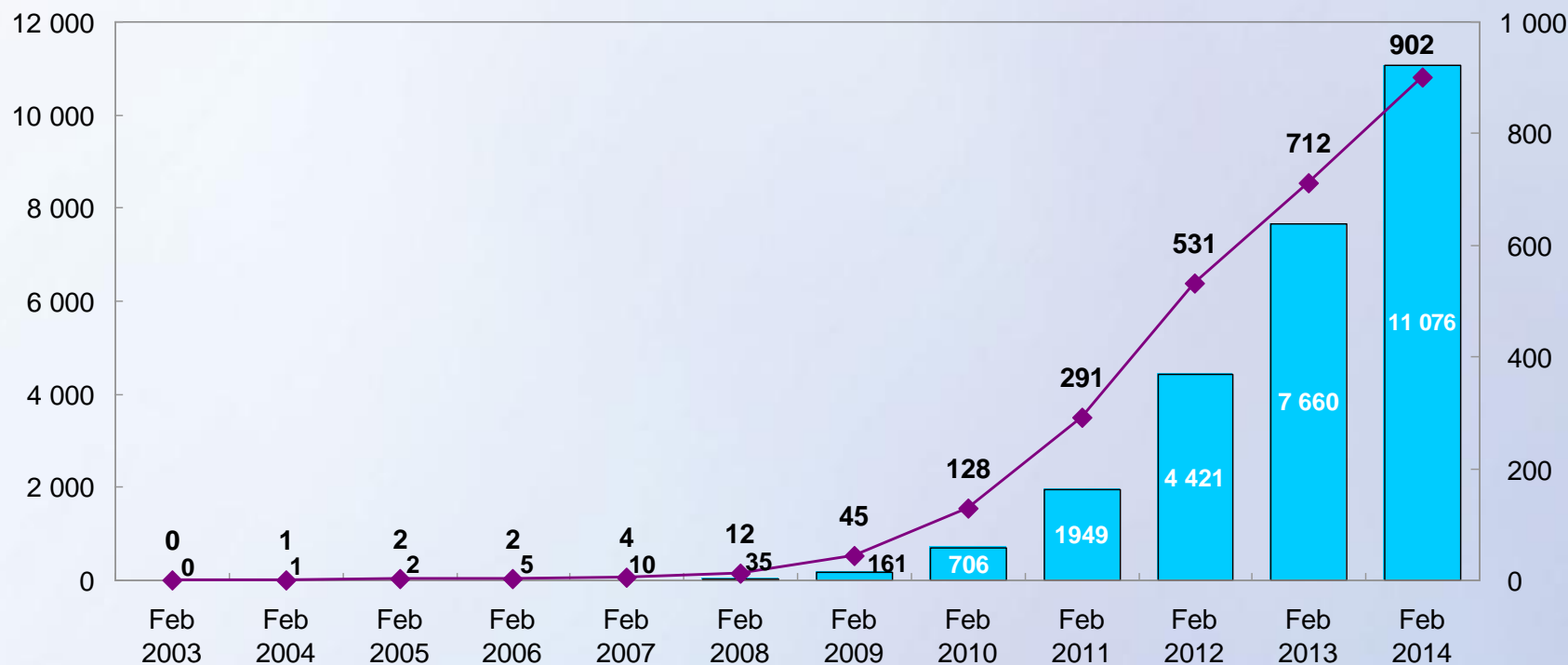
Re-assignment of the 3G Spectrum

- ✚ 120 MHz of paired spectrum assigned through auction to 4 incumbent 3G operators in 2001 for a term of 15 years
- ✚ Existing assignments will expire in October 2016
- ✚ Guiding principles in spectrum re-assignment
 - A market-based approach in spectrum management will be used wherever the CA considers that there are likely to be *competing demands* from providers of non-Government services, unless there are overriding public policy reasons to do otherwise
 - There is no legitimate expectation on the part of the licensees that there will be any right of renewal or right of first refusal of any licence or spectrum assignment upon expiry

Robust Growth in Mobile Data Traffic

Monthly mobile data usage (TBytes)

Usage per customer (MBytes)



Re-assignment of the 3G Spectrum

Objectives in the re-assignment of the 3G spectrum



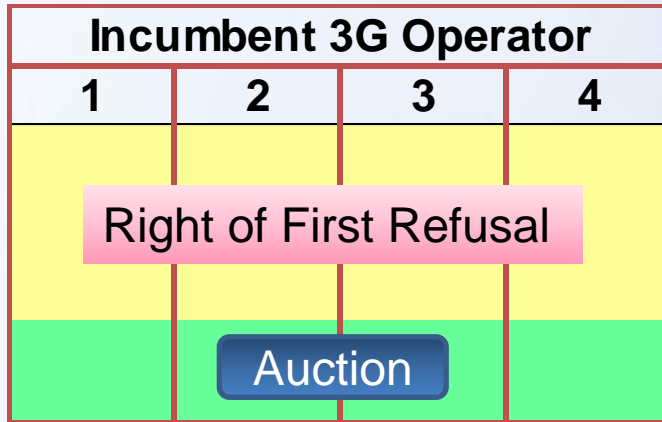
- Decisions on spectrum re-assignment arrangements and the concerned SUF announced in November 2013
 - 3 years advance notice given to the incumbent 3G operators on the spectrum re-assignment arrangements

Preparation for Spectrum Re-assignment

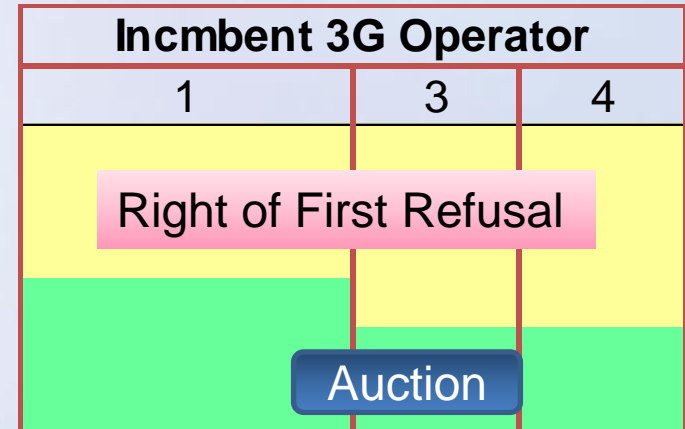
- ✚ Two rounds of public consultation
 - 3½ months for each round
- ✚ 1st consultation: March 2012
 - 3 options proposed
 - ◆ An administratively-assigned approach
 - ◆ A full-fledged market-based approach
 - ◆ A hybrid approach
- ✚ 2nd consultation: December 2012
 - Focus on the hybrid approach
- ✚ Consultancy study
 - Study the impact on service quality and customers by adopting the hybrid approach to re-assign the 3G spectrum

The Hybrid Approach Adopted

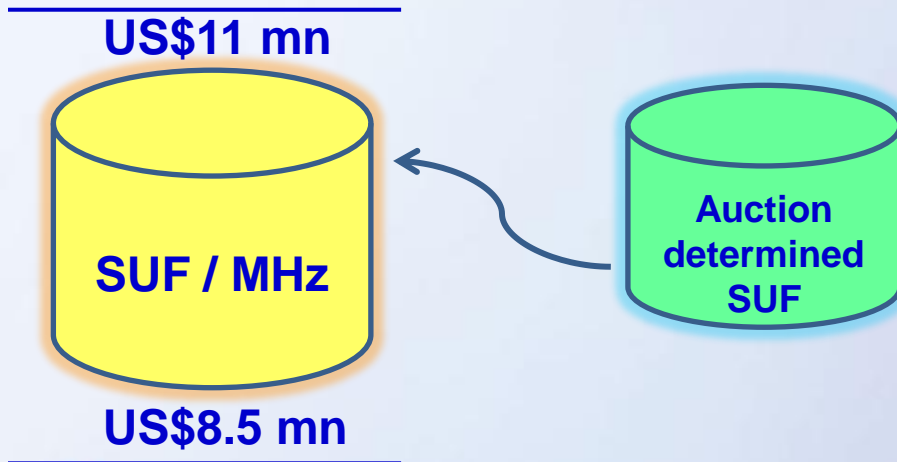
Spectrum Re-assignment



Nov 2013



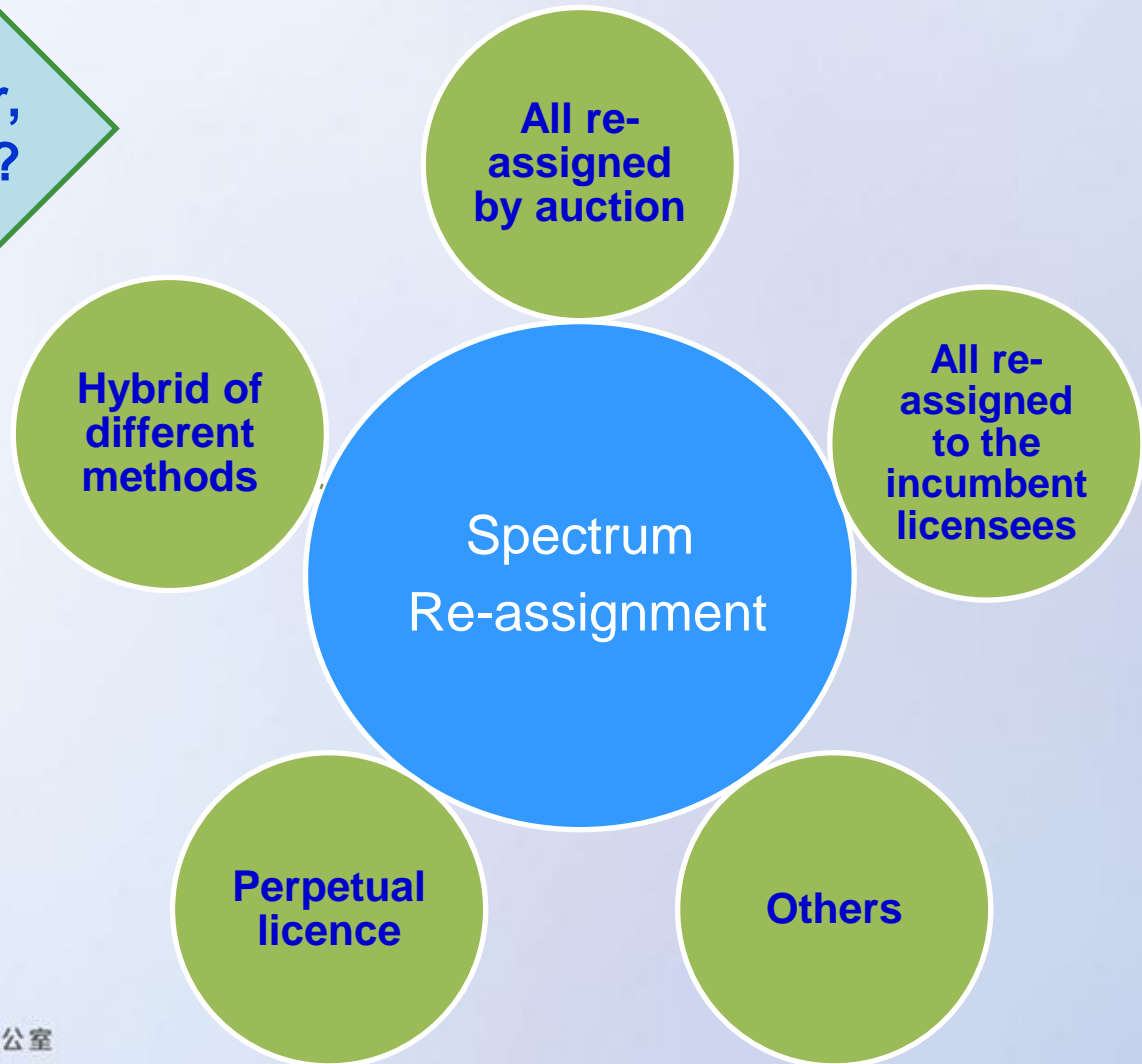
May 2014



Auction to be held in Q4 2014

Upcoming Spectrum Re-assignments

Hybrid method ? Or,
other possibilities ?



Thank You

CA's website - <http://www.coms-auth.hk>

OFCA's website - <http://www.ofca.gov.hk>