

# 1. Background

## Government Policy Objectives

A successful 3G licensing will enable Hong Kong to continue as leader in mobile communications market in the region

### Policy Objectives

- Promote development of telecoms industry
- Promote consumers' interests
- Maximise benefits to the economy
- Efficient and fair allocation method
- Level playing field regulatory environment
- Maximising revenues is **not** Government's primary objective, but...
- ...the auction should allocate licences to parties who value them most highly



**The 3G licensing must achieve Government's stated policy objectives**

# 1. Background (Cont'd)

## Current Market Conditions

### Hong Kong's mobile market is very challenging...

- ▶ Penetration rate at 76%
- ▶ Six incumbent operators with intensive price competition
- ▶ Financing for operators is increasingly expensive or difficult to obtain

### 3G licensing in a highly adverse market environment...

- ▶ Market has become more sceptical about the 3G business opportunities
- ▶ Credit downgrades of certain 3G licence winners due to high prices paid



**Auction must be designed to minimise the initial financial burden on licensees**

## **2. Selection Method and Number of Licences**

### **Hybrid approach : pre-qualification and spectrum auction**

- Pre-qualification conditions to ensure quality services from licensees
- Spectrum auctioning process to ensure an efficient and fair allocation method

### **4 licences to be issued**

- Limited spectrum available
- Ensure appropriate market competition



**Selection method must be efficient and fair**

### 3. Various payment options considered

#### Options

- 1) Up-front cash
- 2) Deferred payment
- 3) Royalties
- 4) Hybrid : royalty with minimum payment

#### Considerations

- Avoid market distortion
- Prevent costs being passed to consumers
- Promote entry
- Prevent collusion
- Minimise bidders' funding requirement
- Increase the Government's ability to share upside
- Reduce credit risk to Government
- Ensure simplicity



**Hybrid method chosen : “Pro-entry”  
and does not undermine consumers’  
interest**

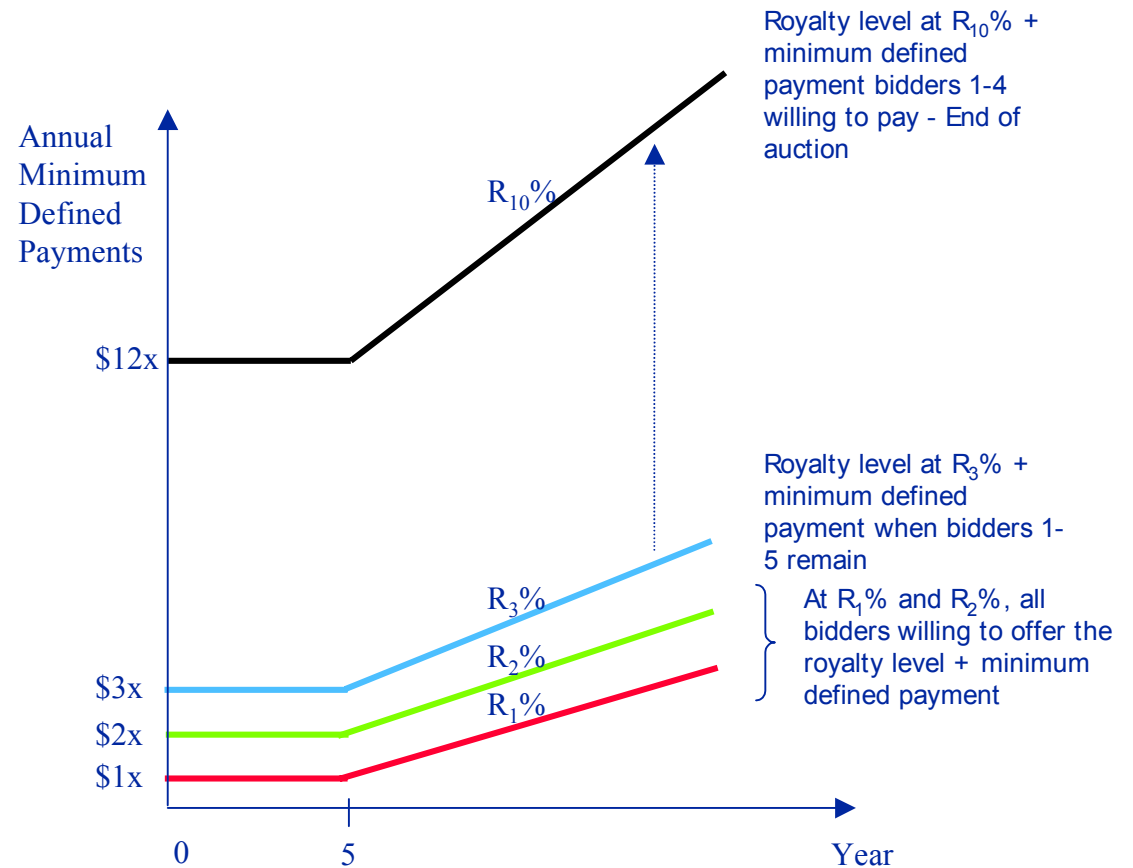
# 4. The Payment Method

For illustrative purposes only

## Minimum defined payments

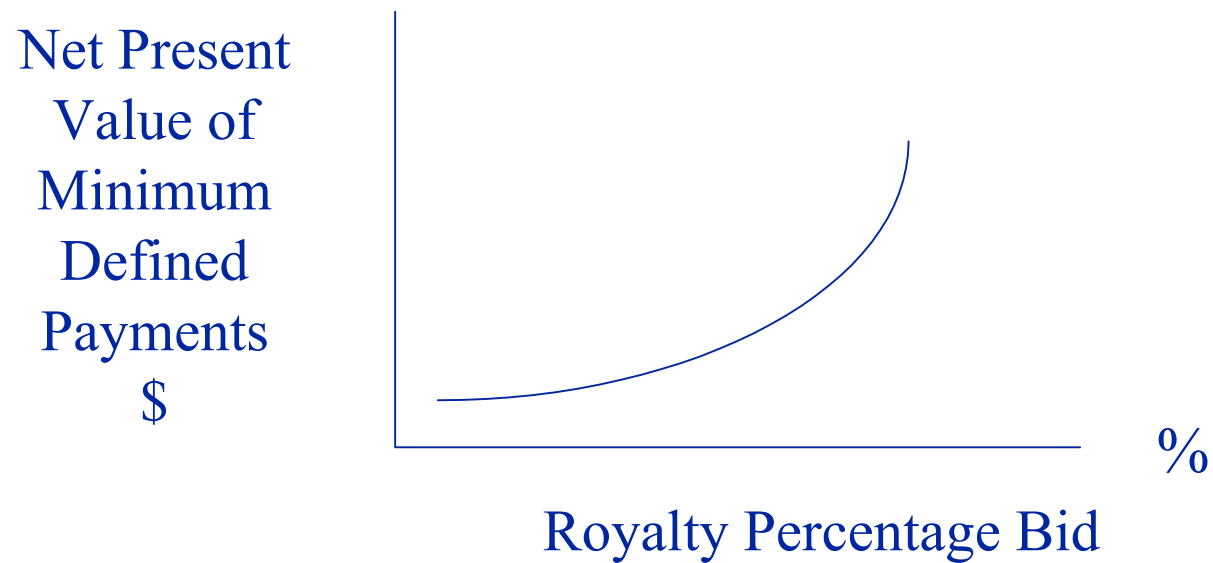
- Government sets a bidding schedule which defines successive steps of bids to be submitted
- Bidders bid for a % of royalty, which has correlated minimum, guaranteed defined payments
- For the first 5 years, all licensees pay a flat annual minimum defined payment
- From year 6, the annual minimum defined payment increases by a pre-determined amount

## Minimum defined payments spread over time



## 4. The Payment Method ( Cont'd )

### Relationship between Royalty Percentage Bids and Minimum Defined Payments



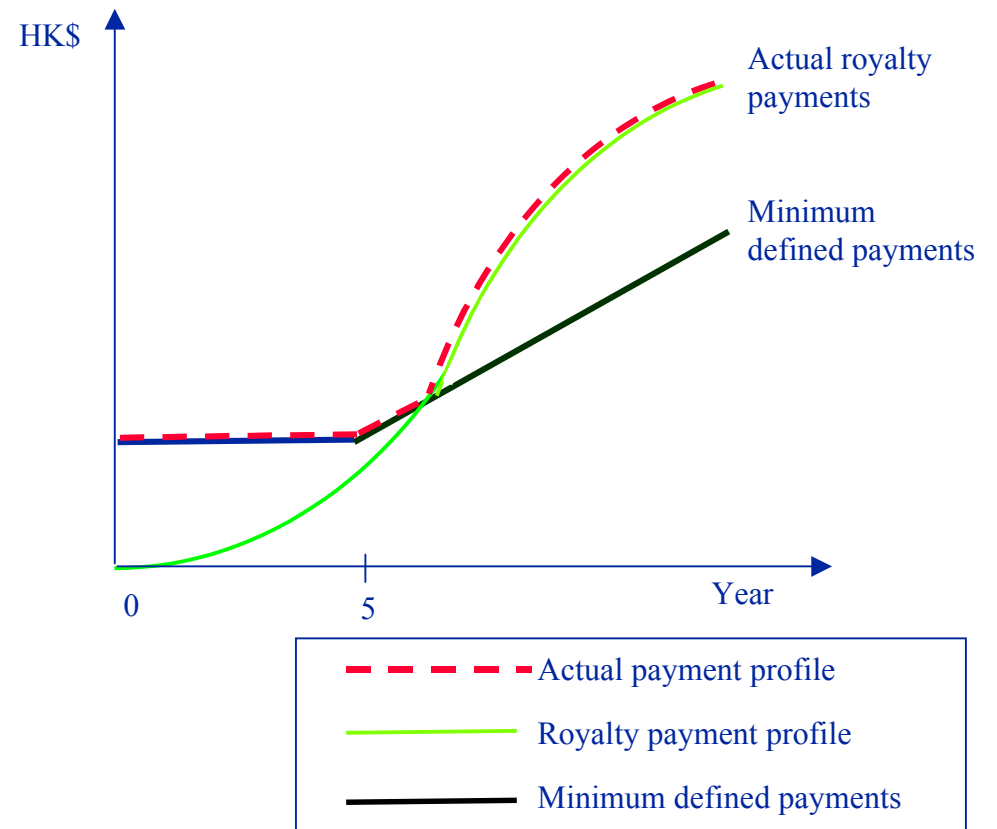
## 4. The Payment Method (Cont'd)

For illustrative purposes only

### Royalties

- From year 6 onwards, annual payments will be higher of the royalty based on actual turnover or the minimum defined payments
- 5-year rolling guarantee required for minimum royalty payments

### Actual payments over time



## 4. The Payment Method (Cont'd)

### Auction Design

**Design needs to be tailored to the chosen payment method and...**

- Promote entry to the auction
- All successful bidders will subject to the same royalty percentage
  - To minimise distortive effect
- An efficient method (for example, a further round of cash auction) will be designed to allocate the four frequency bands to the winning bidders



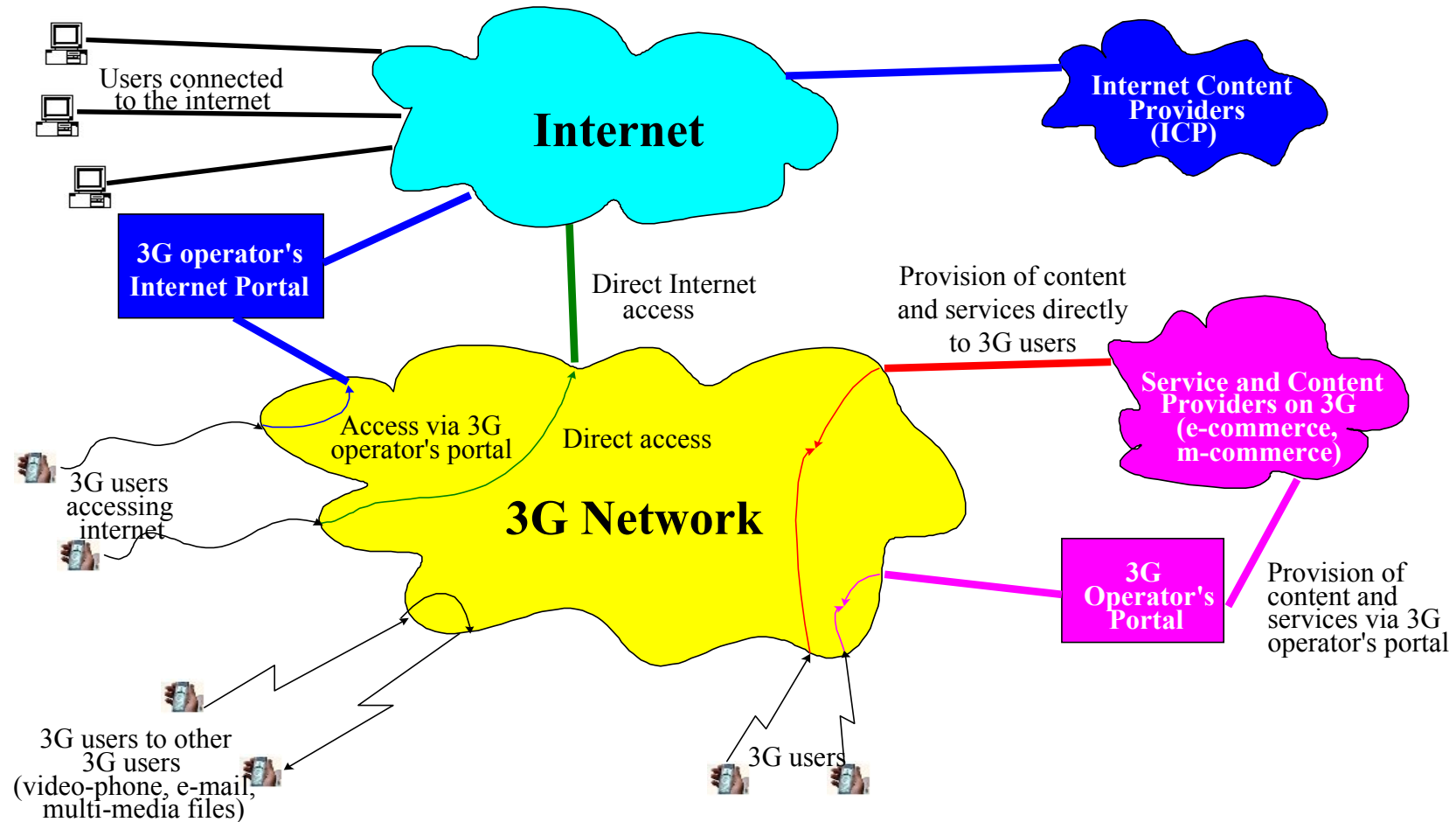
**A number of designs are currently being considered**



# 5. Regulatory Framework

## Open Network Requirement

Potential paths for 3G usage: “Walled Garden or Open Access”



## 5. Regulatory Framework (Cont'd)

### Open Network Requirement - Framework

- Minimum 30% of network capacity open for non-affiliated companies
  - Mobile Virtual Network Operators (MVNOs)
  - Content Providers
- Commercial negotiations of wholesale prices for MVNOs access
- Tariffs for Content Providers set by the 3G licensees, reflecting all relevant cost and cost of capital
- TA has the reserved power to determine interconnection price when commercial negotiations fail, sufficient return will be permitted to reflect risk in 3G
- If required, licensees will need to provide evidence to prove 30% of capacity has been opened up
  - TA will accept alternative methods of measurement proposed by the operators

## **5. Regulatory Framework (Cont'd)**

### **Availability of Additional 3G Services Spectrum**

- Refarming for 3G Services by existing 2G operators will be permitted for the remaining licence period
- Industry consultation on future arrangements for renewal of 2G licences will be conducted
- Additional spectrum in 2.5GHz band allocated by ITU will not be available before 2005
- Industry consultation before 2005 to decide how the 2.5GHz bands are to be allocated

## 5. Regulatory Framework (Cont'd)

### Roaming between 2G and 3G Services Networks

- ▶ Mandatory roaming for new entrants onto 2G networks of successful 3G bidders
  - “Sunset” date currently intended to be five years after licensing

## 6. Public Consultation

### Industry Consultation

- 3G licensing and regulatory framework
  - March and October 2000
- Open Network Requirement
  - Industry workshop in January 2001

## 7. Next Steps

- ExCo approved spectrum auctioning based on royalty
- Formulate method for determining spectrum utilization fee
  - preparing subsidiary legislation
- TA to invite 3G applications upon enactment of legislation
  - TA will work out the design of the auction and the terms and conditions for inviting applications
- Issue of licences around mid-2001