



DEFINING THE FUTURE

# MVNOs - competition policy and market development

ITU workshop on 3G mobile

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# What is an MVNO?

<i>Characteristic</i>	<i>Service provider</i>	<i>Indirect access operator</i>	<i>Enhanced service provider (ESP)</i>	<i>Mobile virtual network operator (MVNO)</i>	<i>Mobile network operator (MNO)</i>
Spectrum					Licensed to use
SIM card			Brands host's SIM cards	Issues own SIM cards	Issues own SIM cards
Network infrastructure		Switch and transmission	Varies	Switch + HLR + transmission	Switch + HLR + VLR + transmission
Pricing		Partially independent	Partially independent	Fully independent	Fully independent
Branding	Some independence	Some independence	Fully independent	Fully independent	Fully independent

# Why become an MVNO?

<i>Player</i>	<i>Type of MVNO</i>	<i>Example</i>
3G only MNO	2G MVNO in home country to get early customer base	Group 3G on EPlus 2G network
2G only MNO	3G MVNO in home country	Bouygues Telecom
2G/3G MNO	3G MVNO in other countries eg via reciprocal agreements	Hard to find examples
3G ESP/MVNO	3G MVNO in other countries	Virgin Mobile

# Supply conditions for the MVNO

- Current supply conditions negotiated rather than regulated
- Buying in bulk cheaper but riskier:

## ***Buy in bulk***

***High risk*** - pay for capacity which may not be used

***Poor*** cash flow - pay up front

***Low*** price per minute - 30% (?) below retail prices

## ***Pay roaming charges***

***Low risk*** - pay only for minutes used

***Good*** cash flow - inbound and outbound payments at same time

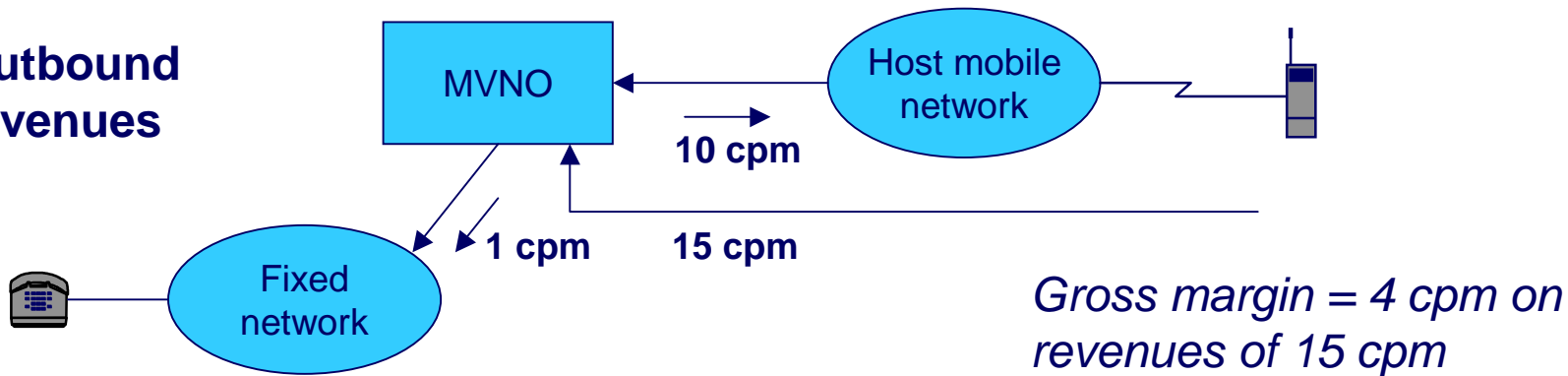
***High*** price per minute - at or slightly above retail (?)

# The commercial case for MVNOs

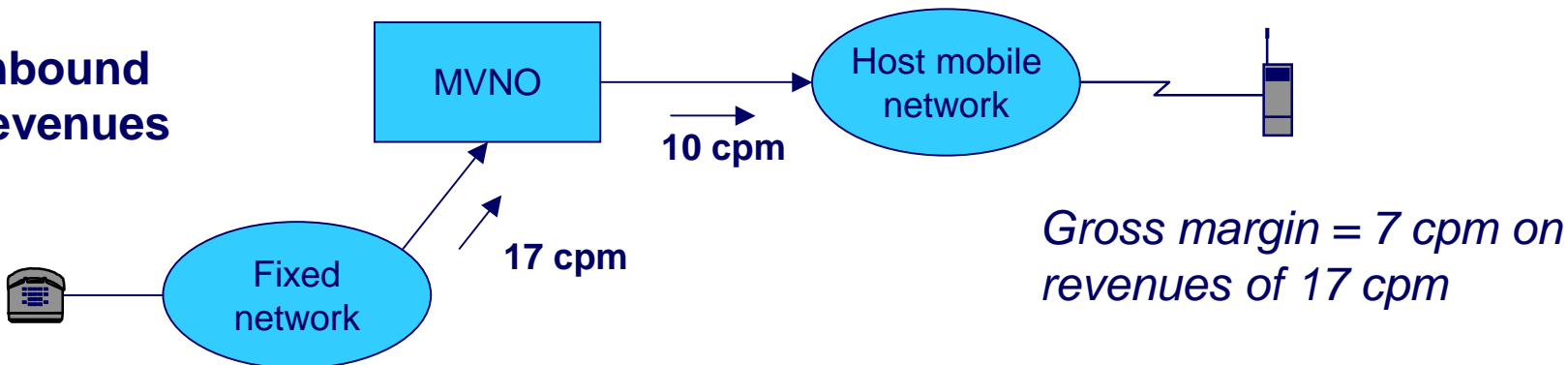
- Capex much lower than MNO but higher than ESP
  - 30% gross margin likely - but not enough for viable voice only business  
SO.....
  - .....need to develop significant volume of value added data services
  - Important to get inbound as well as outbound revenue streams
- Main MVNO capex (v ESP):
    - *mobile switching centre/HLR/VLR*
    - *SIM cards*
    - *VA services and billing platforms*
  - But no radio access network capex (v MNO)

# The importance of inbound call revenues

## Outbound revenues



## Inbound revenues



# The growing importance of MVNOs with 3G

- 2G MNOs have resisted MVNOs and national roaming
- 3G MNOs much more open to both
- Why?

- MNOs concerned whether 3G will give adequate ROCE given:
  - *capex on licence fees*
  - *prospective capex on network roll out*
- **National roaming** cuts capex for 3G national coverage
- **MVNOs** enable improve cash flow for 3G MNO by filling network early
- **MVNOs** reduce risk of inadequate 3G revenues:
  - *revenues dependent on innovative value added data services*
  - *revenue failure less likely with multiple service providers*

# Current regulation in support of MVNOs

- Mandatory national roaming a possible route but...
- ....most NRAs restrict national roaming:
  - **to** *stand alone 3G licensees* - typically *when 20% coverage reached*
  - **from** *2G operators with 3G licences*
- Only Denmark requires 2G MNOs to offer national roaming to MVNOs. But at what price?
- Regulated roaming rates typically > airtime reseller rates
- Current EU framework offers little help
- New EU framework may be better eg:
  - *separate markets for mobile call origination*
  - *CEC recognises need for clarification*

*Will IRG report on mobile access (10/01) offer clarification?*

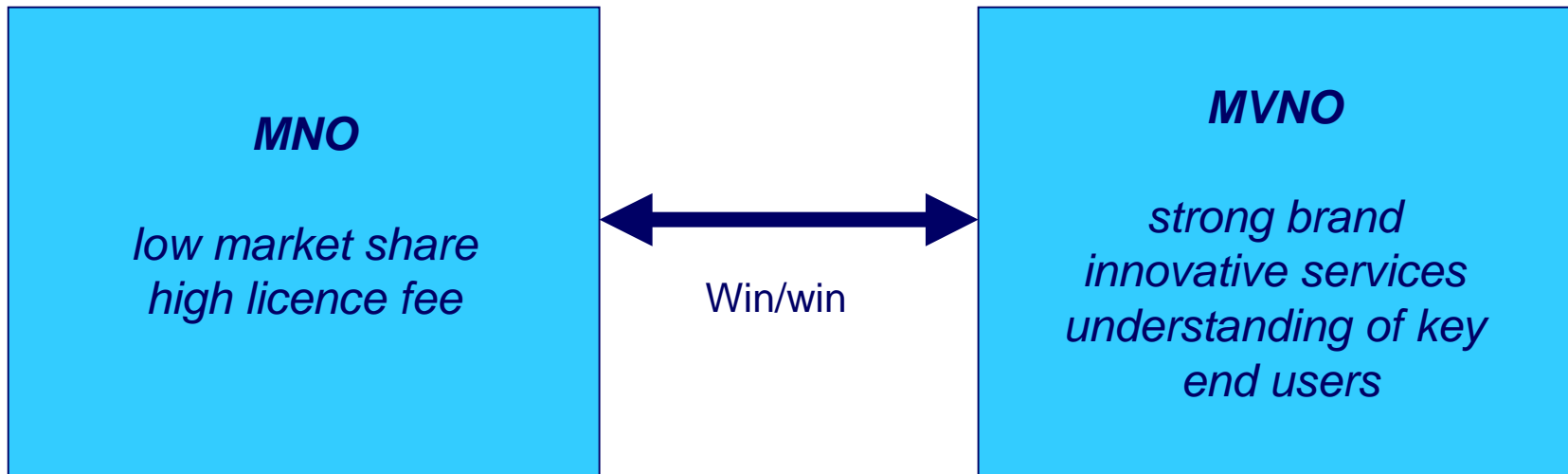
# The case *for* regulation for MVNOs

- 3G MVNOs lead to more service competition and:
  - *greater innovation*
  - *more chance that 3G will succeed early*
- Without regulatory support 3G MVNOs will not enter the market for the long term:
  - *good negotiated supply conditions possible in short term (while MNOs want to fill their networks) but*
  - *long term MNOs will raise prices to drive MVNOs from the market and take full end user revenues*

# The case *against* regulation for MVNOs

- Four or five 3G MNOs per country is enough for strong service competition
- Adequate opportunities for MNOs and MVNOs to negotiate deals
- Regulated supply to MVNOs likely to reduce investment:
  - *danger that NRAs will set supply price too low*
  - *incentives for investment then switch from infrastructure to service*

# Are long term stable relationships possible?



- MNO which raises prices and drives its MVNOs out of business not guaranteed to capture their customers

# Regulating for MVNOs - Ovum view

- Strong service competition if all 3G licensees successful
- But how many will succeed?
- Regulating price of supply to MVNOs will:
  - *produce worse deal for MVNOs than negotiation (regulated price too high) **OR***
  - *decrease infrastructure investment incentives **AND***
  - *reduce chance of MNOs succeeding (regulated price too low)*

## *Conclusions for discussion*

- remove barriers to MVNO entry eg allocation of mobile network codes
- leave MNOs and MVNOs to negotiate supply conditions
- only intervene if clear evidence of market failure