

# **3G "Open Network" Regulatory Framework Industry Workshop**

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5 Jan 2001*



# **“Open Network” Requirement**

- **Support the principle of "Open Network" requirement**
  - **Commercial negotiation is the best approach to accomplish the objective, with regulatory intervention only as a last resort**
  - **Regulatory approach will distort the market place**
  - **Innovation will be driven by commercial attractiveness and business models**

# Definition of Network Capacity & Open Network Percentage

- We disagree with TA's proposed definitions of "Actual NSP Traffic Occupancy Percentage" and "Open Network Percentage" because :
  - *only measured traffic occupancy is considered, instead of the committed capacity*
  - *theoretical maximum capacity is taken as the base of available capacity (through measurement of Rise Above Thermal)*

# Definition of Network Capacity & Open Network Percentage (Cont'd)

- Our proposal:

*MNOs will have met the “open network” obligation once :*

*Contractually Committed Capacity  
for all NSPs*

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*Installed Network Capacity  
at that moment*

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*Open Network  
Percentage*

## **Definition of Network Capacity & Open Network Percentage (Cont'd)**

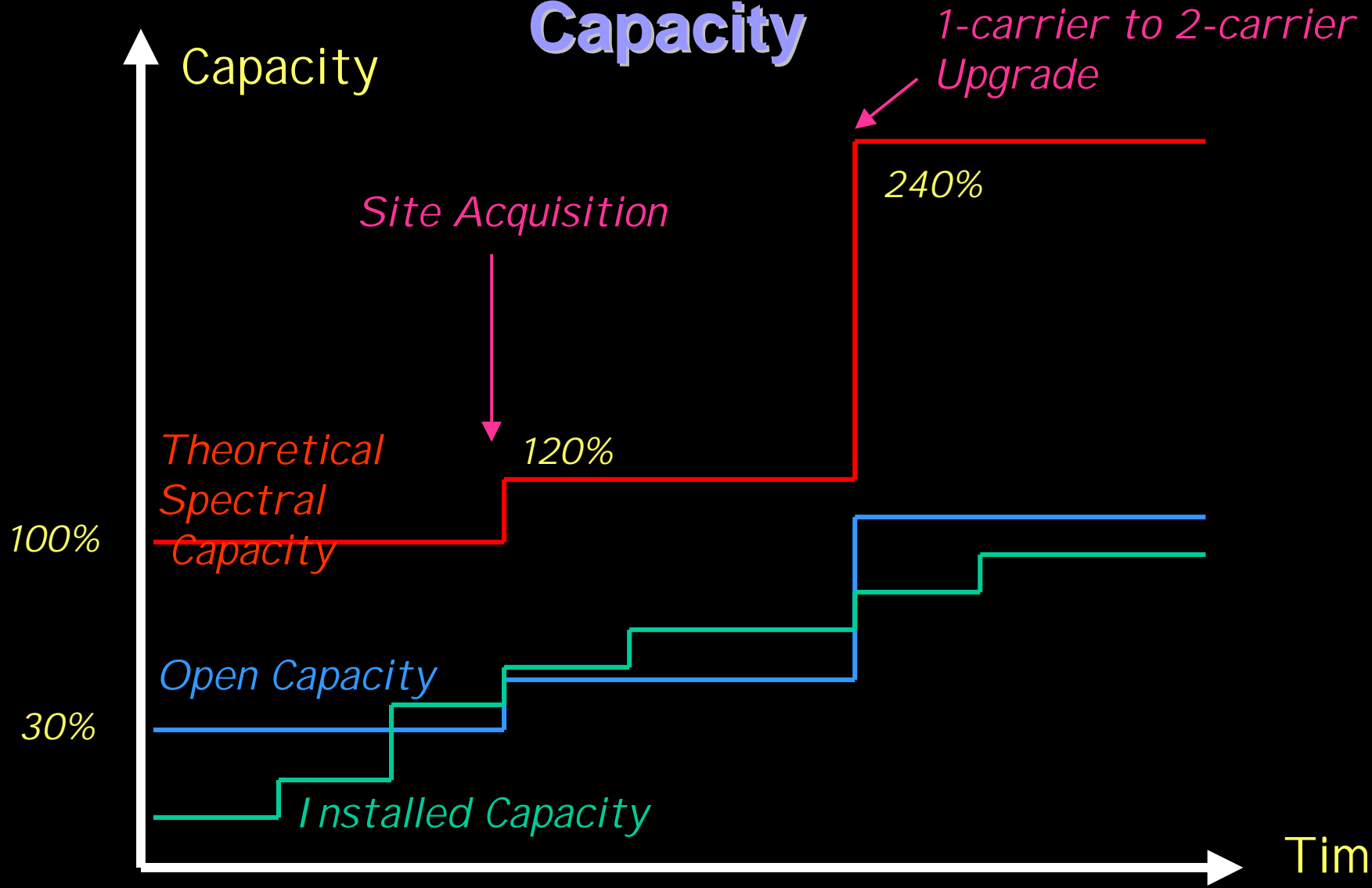
- **Suggest to adopt an Open Network Percentage of 20% to avoid any single NSP getting an aggregated capacity higher than that of an MNO.**
- **Need to define the meaning of “Non-affiliated”**

# Hardware Capacity vs Spectral Capacity

The proposed measurement methodology only calculates Ultimate Spectral Capacity without considering the installed hardware capacity (e.g. channel cards).

- In reality, there are operational and commercial constraints that have to be taken into considerations
- Open network percentage should be based on hardware capacity rather than theoretical RF capacity measured from Rise Above Thermal (RAT).

# Theoretical Spectral Capacity vs Installed Capacity



# Obligations of NSPs

- **MNO**

- Heavy investment : *License cost + network investment*
- Many obligations :
  - *Open Network requirement*
  - *Efficient use of radio resources and safety requirements*
  - *MNP requirement*
  - *Interconnection requirements*
  - *other MNO obligations .....*

- **NSP**

- *Low license cost & low entry cost*
- *Should bear all obligations as MNO's except Open Network requirement*
- *Have to pay for the committed capacity whether they use it or not.*



# Wholesale Price

- What is the exact meaning of an “undistorted market”?
- OFTA should ensure in the 3G market there is no distorted competition, which is currently happening in the 2G/2.5G market
- Retail minus approach will not be applicable in a “distorted market”
- Suggest a hybrid pricing scheme (i.e. retail minus or cost plus, whichever higher) to reflect network cost and risk and a fair return
- License cost should be taken into considerations in the case of cost plus.

# Regular Traffic Reporting

- Reporting of data volume on per cell basis is not feasible because :
  - Cell ID information in CDR is not specified in UMTS Rel.4 (R99)
  - CDRs cannot reflect traffic usage of intermediate cells in the case of handovers
- OFTA's proposed methodology will involve customized reporting facility that will be costly and time consuming to develop.
- Monthly reporting will be a tedious job and a burden for MNOs, and potentially for OFTA as well.
- Suggest a longer reporting period or report generation on-demand, instead of monthly.

# Measurement of Traffic Occupancy and Open Network Percentage

- Uplink Capacity

The proposed calculation of uplink capacity is only a theoretical model. Actual implementation is not practical:

- Need the facility to support automated and regular reporting of the Rise Above Thermal (RAT) values.
- Activation of such facility for real time measurement may cause serious impacts on system capacity and stability

# Measurement of Traffic Occupancy and Open Network Percentage

- Downlink Capacity

- The proposed downlink capacity equation is questionable.
- RF theoretical capacity is independent of the Real Time Traffic.

$$\frac{\text{Downlink Available Capacity}}{\text{Uplink Available Capacity}} \neq \frac{\text{Downlink Total Occupancy}}{\text{Uplink Total Occupancy}}$$

Theoretical Capacity  
Limit

Real Time  
Traffic

# Summary

- **The main theme of the discussion paper is on the solutions for traffic measurement and reporting.**
- **The feasibility and accuracy of the proposed methodologies and formulas are highly questionable.**
- **Many more open network issues need to be addressed, including but not limited to:**
  - **Clear definitions of MVNO, and their obligations**
  - **Various interfacing points and their standards**
  - **How to ensure NSPs' traffic utilisation is not exceeding what they have committed**

# Way Forward

- **Propose additional 3 - 4 weeks to address other issues in the paper with the industry**
- **Need to re-think on the measurement methodologies**

**Thank You**

