



The Spectrum Shortage

Rajat Mukarji
Idea Cellular

7th March , 2014



“Leading economies have clearly grasped and responded to the urgent need to auction more government spectrum, because they appreciate data demand is relentlessly doubling annually.”

“All I see on the CES 2014 show floor is mobile, mobile, mobile, ----- and to me that means spectrum, spectrum, spectrum.”



Industry Status



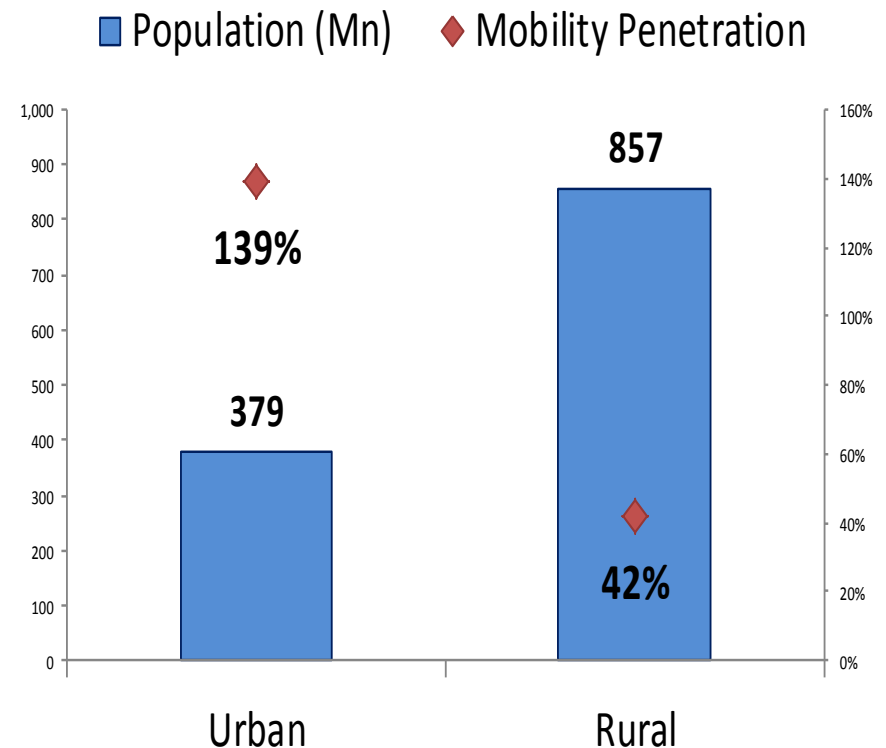
- Total Subscribers – 915 mn
- Wireless Subscribers – 886 mn
- Gross Revenues – Rs 212,592
- Gross Block – Rs 7.10 bn
- NET Debt – Rs 2.50 Bn
- EBITDA – Rs 0.4 Bn





The Urban – Rural Divide

- The total penetration is skewed towards urban
- Urban penetration is 139%
- Rural penetration is 42%
- Urban trends show the need for data
- Rural trends show the need for balanced voice and data
- Clear headroom for deeper rural penetration
- Spectrum the need of the hour.



Next Round – The Data Game



886 Mn Indians on Mobile Voice



One to One



One to Many

Internet on Mobile
Central Role in the Transition to Digital Lifestyle



Next Round – The Data Game



In 2013, **210 Mn** Indians had Internet Access



188 Mn of them on Mobile Internet!

More than **600 Mn** waiting to be connected...



Spectrum Holdings



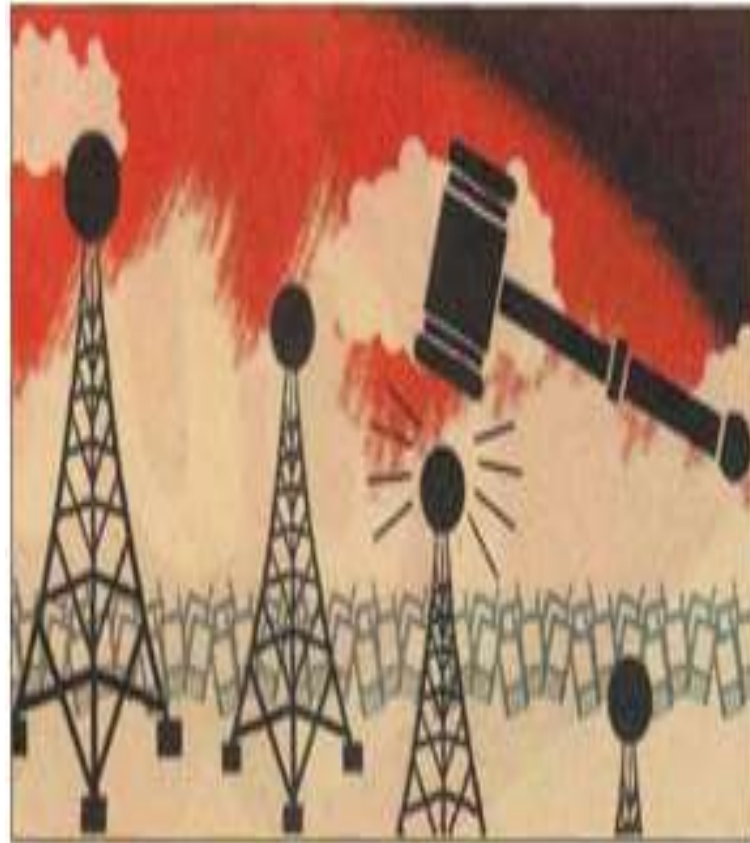
- | | |
|-------------------------------|-------------|
| • Before 2010 – | 1168.50 MHz |
| • Acquired — 2010, 2012, 2014 | 1635.80 MHz |
| • 800 MHz Band – CDMA | 236.25 MHz |
| • 900 MHz Band – GSM | 449.40 MHz |
| • 1800 MHz Band – GSM | 646.50 MHz |
| • 2100 MHz Band – WCDMA | 460 MHz |
| • 2300 MHz – BWA | 1320 MHz |



Spectrum Sharing



- Being actively considered by the DoT
- Principally implies active Infrastructure sharing
- Defined as the **SIMULTANEOUS** usage of a specific band
- Confined to a specific area only



Spectrum Trading



- Also being actively considered by DoT
- To be permitted on a circle basis
- Permission for a defined period of time



Spectrum Utilization Efficiency



| Total Subscribers | Total Spectrum | Subscribers/MHz |
|-------------------|----------------|-----------------|
| 883 mn | 3103 | 285K |
| 493 mn (56%) | 810 (26%) | 609K |
| 390 mn (44%) | 2293 (74%) | 170K |

- The top 3 National Operators account for just over half the total subscribers as of end of January 2014, but just over one quarter of the allotted spectrum

- There is a desperate need to get more spectrum to those who use it efficiently





Thank You