



DIGITAL
LIFE

ANALYST PRESENTATION

2nd MARCH, 2017

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OUR FUNDAMENTAL BELIEFS

Shift in Industry Revenue

- **Revenue Transition from voice to data in 1-2 years**
 - **Voice revenue to reduce from Rs 1.5 lakh cr to Rs 0.5 lakh cr**
 - **Shift of Rs 1 lakh cr from voice will take data revenue to Rs 1.3 lakh cr**
- **Overall Industry Revenue to grow to Rs 3 lakh cr by 2020-21**
 - **Leading global consultants have forecasted demand for data at 500 -600 cr GB / month. At yield of Rs 50/GB it translates to Rs 3.0 - 3.6 lakh cr / year**
 - **Equivalent to 1.35 -1.6 % of projected GDP (still lesser than 2.5% in developed economies)**
 - **Government revenues likely to increase by 50%**
- **Industry growth was low in last 5 years – next 5 years to see rapid growth with data explosion**

Mobile market to expand to Rs 3 lakh cr primarily from data

Elasticity of Demand

- **Industry is moving from voice to data**
- **Voice is demand constrained**
 - **Inelastic demand; limited by time availability**
 - **No possibility of service differentiation**
- **Data is supply constrained (demand will always outstrip supply)**
 - **Very elastic demand**
 - **Increase due to screen size, resolution, data speeds and time spent**
 - **Consumption will increase; Constrained by budget only → ARPU growth**

ARPU will grow because of shift from voice to data – revenue market share will be driven by data capacity share

Industry will move to ARPU / User from ARPU / SIM

- **ARPU per SIM is a misnomer while assessing ability to pay**
- **TRAI data indicates 1.13 bn SIMS in India**
- **Data can be activated only on one SIM (unlike voice on dual SIM)**

Particulars	UOM	Smartphone Users	Feature Phone users
Devices in circulation	Mn	263	496
Average SIM / User		1.19	1.28
ARPU per VLR SIM	Rs.	277	134
Effective ARPU per user	Rs	329	172

Source: TRAI, CMR data, Company estimates

1.13 bn SIMs will move to 0.8 bn SIMs with no voice arbitrage

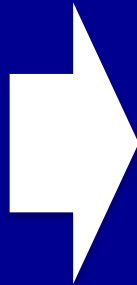
Customers have ability to pay

Particulars	Mobile Users
Subscribers in 2009	392 mn
ARPU in 2009	Rs 179
Equivalent ARPU in 2016 (adjusted for nominal per capita income)	Rs 500

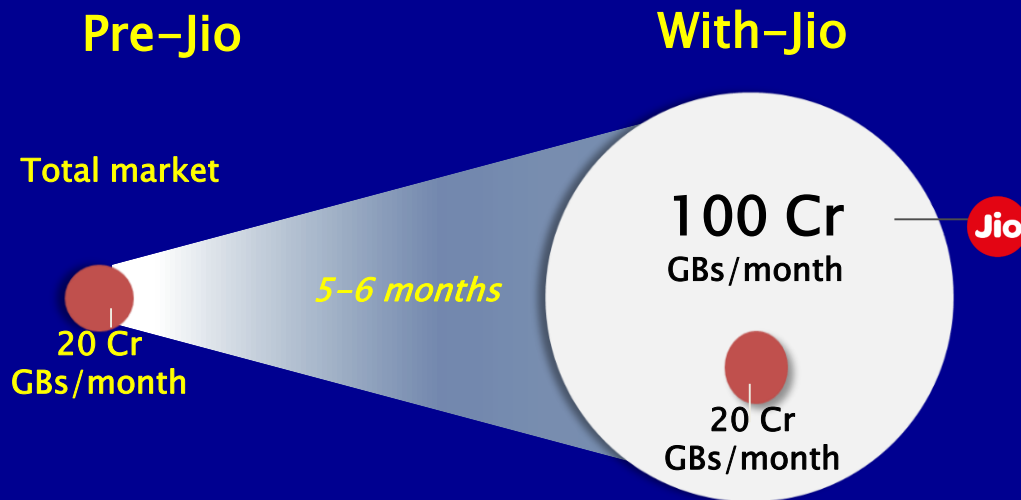
Source: TRAI, RBI, World Bank

400 mn subscribers can afford to spend Rs 500 and above on digital services

PRE JIO vs WITH JIO



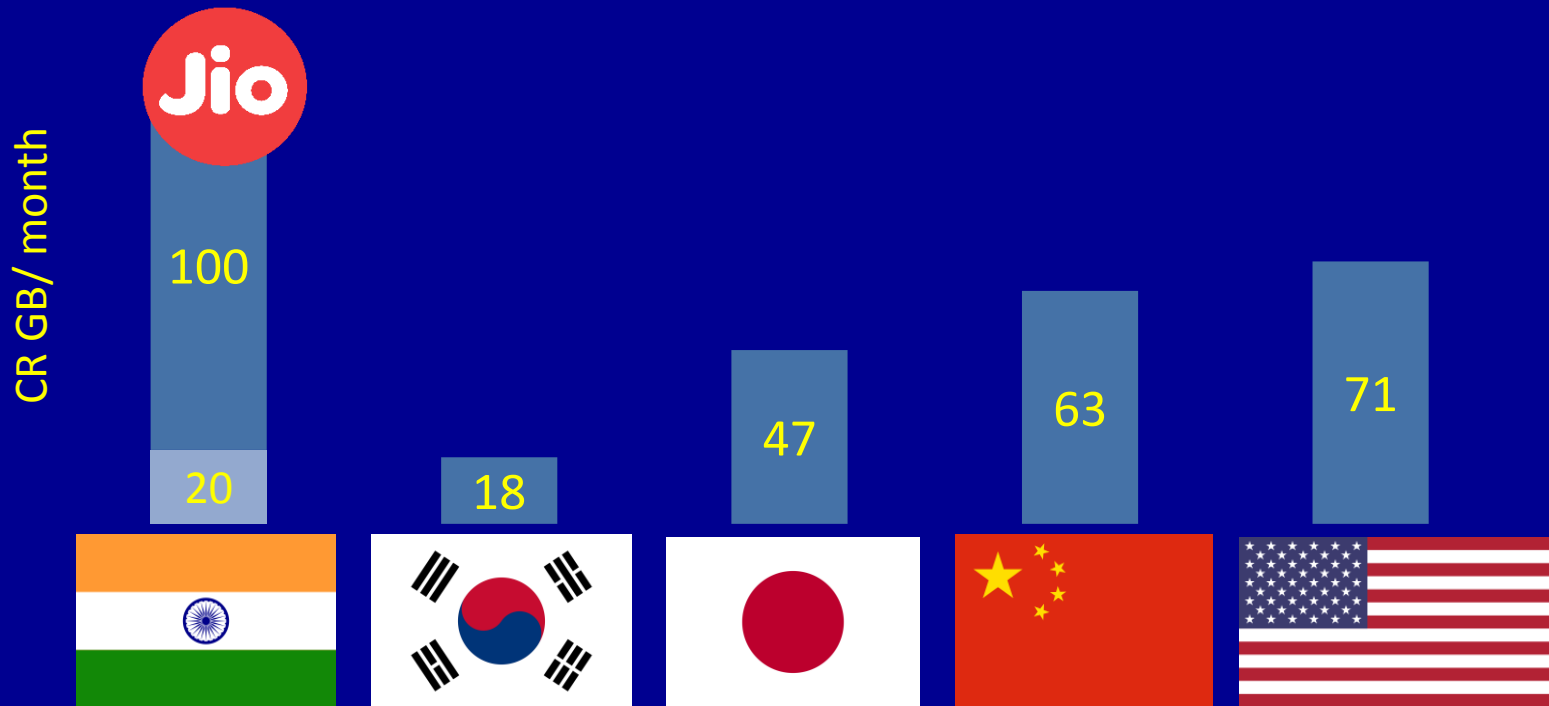
Data Explosion



- Jio has created world record for fastest 100 mn acquisition

Market expanded 6X with introduction of Jio in less than 6 months

Jio Impact on India Ranking



SOURCE: Cisco VNI; OVUM; Strategy Analytics; TRAI; Company Analysis

India has become no 1 country for mobile data usage with Jio



Jio First Mover for Customer Friendly Tariffs (1/2)

Before Jio

1. High base rate (Rs 4,000 – 20,000 per GB)
2. 16,000 plans to confuse customers
3. Roaming charges
4. Blackout
5. VAS charges

After Jio

1. Base rate = Rs 250/GB (pack rate at which competition sells)
2. Simple structure
3. All-India ONE ~ no roaming in India
4. No Blackout / Unfair charges
5. No old-world VAS in digital world

Jio First Mover for Customer Friendly Tariffs (2/2)



Before Jio

6. Pay for every service separately, including low-cost ones
7. High data rates, causing data anxiety and bill shocks
8. Voice charged at equivalent of Rs 5,000 / GB, premium for local, STD, Roaming, Off-net

After Jio

6. Only pay for one service (highest demand) – data
7. Lowest data rates in the WORLD with the BEST experience
8. Truly Free voice - Local, STD, Roaming, Off-net

Jio bringing the best to India

- **World's largest all IP network**
- **Highest VoLTE traffic of 200 cr mins/day (equals Vodafone India CS voice)**
- **Filed 53 global patents**
- **Created device ecosystem for 4G in India**
- **India has become most active market for Google and Facebook (70 mn additions post Jio)**
- **Jio hits ~3.6 mn peak simultaneous video streams daily (v/s largest US operator who had a peak of 1.7 mn simultaneous video streams during Super Bowl '17)**

Jio Applications



JioTV



JioCinema



JioMusic



JioMags



JioXpressNews



MyJio



JioMoney



JioChat



JioSecurity



JioNet



Jio4GVoice



JioNewsPaper



JioCloud

➤ **Free up to 31 March 2018 for Jio Prime Customers**

Jio has best suite of applications with the most comprehensive library of content ensuring stickiness of customers

JIO

**CONCERNS
V/S
PERFORMANCE**

Concerns v/s Performance



Concerns

There are very few devices for LTE

Mobile Data demand is limited

Performance

- **124 mn LTE devices**
- **All new smartphones models are LTE enabled (8-9 mn /month)**
- **2G/3G smartphones (165 mn) can enjoy 4G with JioFi**
- **4G smart feature phone is becoming a reality**
- **Data explosion with commencement of Jio services**
- **Average consumption of 10 GB/month across all circles and urban/ rural**

Concerns v/s Performance



Concerns

LTE cannot support good voice quality

Subscriber offtake would be slow

Performance

- **HD quality voice is only on Jio network**
- **Jio network today carries 200 cr mins per day; equivalent to large incumbent operators**
- **Jio has capacity to carry 100% of India's voice traffic**
- **On Jio network lowest call drop in Industry**
- **Deliberate attempt of incumbent operators caused POI issues**

- **7 subscribers per second over 170 days**
- **Activation within 15 minutes using eKYC**
- **Data adoption has been rapid**

Concerns v/s Performance



Concerns

Performance

Quality of Customers

- Handset price is proxy to ARPU
- Average price of handset on Jio network is >10k (Industry has 10% >10k)
- Jio has 40% market share in devices >20k

Ubiquitous LTE coverage and high quality indoor coverage not possible

- Jio population coverage of over 75%
 - 100% urban coverage
 - Plan for over 95% population coverage
- Only operator with pan-India sub-GHz LTE spectrum



MYTHS & HARD REALITY

Capacity = Spectrum x Towers

Capacity = Cells x Spectrum x

- **Jio 4.7x of entire Industry LTE MHz-cells (million)**

Jio*	13.46
Others	2.85

**includes Jio small cells under implementation*

SINR Factor x

- **Interference reduced by Jio's unique real-time analytics and automation tools**
- **Better Signal ensured- device support, single sector cells, indoor solutions**

Backhaul Factor

- **Backhaul constraints due to Site fiberisation**
- **Jio – 60%, Rest – 20%**
- **Incremental backhaul is not only expensive but also time consuming and complex execution**
- **Jio has 3-4 years head start**

It is not arithmetic which determines capacity, it is a detailed science

LTE device support all bands

- **Jio operates in Band 3 (1800 MHz), Band 5 (850 MHz) and Band 40 (2300 MHz)**
- **Jio's joint efforts with chipset, OEMs and brands helped in successfully shifting the market from 80 models a year ago to more than 762 models**
- **LTE device ecosystem in other bands is underdeveloped in India. Further, poor global ecosystem across these bands is major barrier**

4G device ecosystem beyond these three bands is underdeveloped

Refarming 3G to 4G is easy

- **Due to increasing voice load and absence of VoLTE, incumbents need to keep 3G on for voice traffic**
- **Conventional antennas may need to be replaced since they don't support remote electrical tilt and MIMO (Multiple Input, Multiple Output)**
- **Old 3G BTS cannot be upgraded to 4G. Even new 3G BTS would require additional card and huge license cost for 4G upgrade**
- **Even in most advanced countries, there is no shutdown of 3G yet**

Refarming 3G to 4G is very costly and challenging



STRONG ECONOMICS

Strong Economics

- **Superior spectral efficiency**
- **No legacy systems**
- **Lowest capex per unit capacity**
- **Lowest operating cost per GB**
- **Bulk of network is already built – can support more than 60% of forecasted 2020 - 21 India data demand**

Jio anticipates EBITDA margin >50% on gross revenue



SUMMARY

Summary



- **Voice revenues will shift to data. Data market in India will be Rs 3 lakh crore by 2020-21**
- **400 mn subscribers can afford to spend minimum of Rs 500 on digital services**
- **Jio caters to 85% of mobile data traffic in India today. Jio can support more than 60% of forecasted 2020 - 21 India data demand**
- **Jio is India's only 5G ready network due to its elastic network and deep fiber**
- **Well positioned to achieve more than 50% revenue market share**
- **Jio anticipates EBITDA margin >50%**



THANK YOU