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Tonse Opinion
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India Telecom 2009: Looking ahead with continued hope

2008 will probably be remembered as the year when icons of the financial world on the Wall Street struggled really hard to stay afloat. With lot of investment banking bellwethers going down, the world was thrown into financial turmoil. India was also not saved from this mayhem. The stock market gave away most of the gains made over last few years; companies saw drastic decrease in their market capitalization, revenues and profits; real estate struggled like never before. Telecom sector while not unaffected by these issues was one of the least severely affected sectors in India. In fact, 2008 should be remembered as a really good year for Telecom sector in India.

In this paper, we look back at 2008 and look ahead at 2009.

Telecom Subscriber Numbers:

- 374.13 million Telephone subscribers as of November 2008 against 264.77 million as of November 2007.
- 336.08 million Wireless (CDMA/GSM/WLL) subscribers as of November 2008 against 225.46 million as of November 2007.
- 44% growth in wireless subscribers from subscriber numbers at beginning of 2008. The growth rate will touch almost 45% when December numbers are taken into account.
- About 3.5% decline in fixed line telephone subscribers.
- 5.28 million Broadband subscribers as of November 2008 against 2.87 million as of November 2007.
- 69% growth in broadband subscribers from subscriber numbers at beginning of 2008.
- Rate of growth for Broadband has doubled in 2008 when compared to 2007.

The statistics above capture growth of telecom industry in 2008 in a nutshell. The India mobile engine continued its unprecedented growth – seemingly unstoppable!

In broadband, a lot has been said and written about slower than anticipated growth. However, it is encouraging to notice a higher rate of growth of broadband subscribers than in 2007. Coupled with drop in computer prices and increased awareness and need of people to be online, broadband is soon likely to be new success story for Indian Telecom market after the wireless telephony.

Regulatory updates that made news:

2008 was the year that saw many interesting fights between TRAI and DOT, which is not too different from earlier years! Nevertheless, they did come out with some really insightful recommendations and regulations that are sure to help the Indian Telecom sector. We summarize some of the developments here -

- TRAI sent recommendations to DOT in August, 2008 on introducing calling cards for making national long distance calls. This will provide consumers a choice of carrier for making long distance calls and will reduce call tariffs due to competition.

- In August 2008, restrictions on Internet Telephony in India were removed. With these restrictions removed, Internet Service Providers can now offer unrestricted internet telephony by terminating Internet Telephony calls on PSTN/PLMN and vice-versa. National Long Distance carriers can now connect to ISP through mutual agreements for offering Internet Telephony.

- TRAI also allowed operations of MVNO (Mobile Virtual Network Operators) through recommendations released in August, 2008. MVNO are entities that can offer mobile voice/data services without actually owning spectrum or infrastructure. They buy minutes from traditional mobile operators in bulk and resell to customers. However whether MVNO model will work in India remains to be seen with High Tax rates and FDI limits (if non-telecom players enter the MVNO market).

- In July 2008, TRAI released recommendations on restructuring Cable TV sector. Through this, TRAI has set time period of 5 years for all digital transmission through cable TV. With this, India moves closer to having MSO (Multi-System Operators) just as in developed world that own total digital networks capable of providing voice/video and data to end customers through their network.

- Limits on Foreign Direct Investments in major broadcasting sectors (Cable Television, DTH, FM Radio, Mobile Television, uplinking and downlinking of TV channels etc) has been increased significantly in April. In most cases, the limit has been hiked from 49% to 74%. This will allow bringing in funding needed to boost the sector, technology know-how and best practices from developed world and also opens export markets to Indian players.

- Mobile Number Portability has been approved by TRAI/DOT in April, 2008. This will allow subscribers to keep same mobile number while switching from one service provider to other. This is bound to increase competition and bring tariffs down while improving services as it becomes easier for consumers to switch service providers. MNP opens up a fairly massive CAPEX opportunity for vendors such as Telcordia / Tekelec and others in this space that traditionally sells SS7 gear. Our estimate is that in full fledged deployment this would generate total network CAPEX of about Rs1200 crores [or about $250 million] over the next year.

- Access Deficit Charge (ADC) payable by service providers to BSNL was scrapped. This has helped bring down the mobile call tariffs in 2008.

3G/BWA Roller-Coaster Ride

As people tracking Indian Telecom Industry are well aware, India has seen incredible mess when it comes to spectrum allocations (auctions or otherwise) for broadband wireless services such as WiMAX and 3G. 2008 saw some significant progress on the spectrum auction front when DOT announced auction policies for 3G (2.1 GHz) and BWA (2.3 GHz and 2.5 GHz) spectrum in August. It seemed almost certain that spectrum allocations will be complete before end of 2008. As per latest announcement from DOT/ Ministry of Finance, 3G and BWA auction is expected to start in January 2009. It is possible that 3G auction will be moved out to February or later, but it is hoped that BWA auction will start in January 2009.

Major events in Indian Telecom Industry in 2008

Some key industry events in 2008 are highlighted below.

- Many foreign Telecom giants made a move to enter Indian Telecom market. After all the fastest growing cellular market is too big to ignore. Japanese Telecom giant NTT DOCOMO bought 26% stake in Tata Teleservices for a price of $2.7 billion. Norwegian Telenor announced intention to buy 60% stake in Untech Wireless for a price of $1.1 billion. UAE based Etisalat has already opened India arm and decided to tie up with SWAN Telecom to enter Indian market.

- Major CDMA players – Tata and Reliance entered GSM space by acquiring licenses to offer GSM services. Network build-out has already started with plans to offer GSM based services in 2009.

- I-Phone was launched in India on Vodafone and Airtel networks. Entry of I-Phone is important not only because it heralds entry of touch screen phones to Indian market, but also due to the potential of increased use of mobile data services by Indian consumers. However, it must be noted that I-Phone has enjoyed only limited success in India so far.

Extremely high price tag associated with it and lack of 3G services in India can be attributed to failure of I-Phone to splash.

- India saw huge influx of (estimated to be 18-25 million) Chinese made handsets that either do not have IMEI or have fake IMEI. These phones cost a fraction of original handsets and offer similar features. However, as they use fake IMEI, it poses a threat to the security and hence DOT had threatened to block calls originating from these handsets. However a workaround that can be downloaded Over-the-air or across the counter will allow generating IMEI and sending back to the network EIR. This has allowed overcoming the problem and these phones seem to be safe – for now

- Big storm over use of Blackberry erupted when DOT warned operators to allow lawful interception of the services. Eventually the storm turned out to be a small one after government agreed to work with Blackberry to give them time to implement necessary technology.

- Security of WI-FI networks came under a scanner after terror attacks on India. Unsecured Wi-Fi networks were used in these attacks to send out warning emails.

- Indian operators like Airtel and Reliance started expanding out of India by buying (or trying to buy) operators out of India. Airtel expanded its footprint outside India by launching service in Guernsey (Channel Islands, Europe). Airtel launched services in the Indian Ocean island nation of Seychelles through a company registered as Telecom Seychelles Limited under Airtel brand. They have started offering telecom services such as GSM cellular, PSTN, 3G and Blackberry data services. The other Indian telecom giant, Reliance acquired Uganda based Anupam Global Soft and announced plans to invest $500 million in the region to capitalize on growth prospects in emerging telecom market there. In addition, Reliance Globalcom (subsidiary of Reliance Communications) also bought eWave World, which is a WiMAX operator registered in Virgin Islands and UK based managed network services provider, Vanco Group Limited.

- Mobile VAS industry started slowly growing beyond CRBT, wallpapers and ring tones. However, due to business models that are skewed heavily in operators' favor, the euphoria surrounding Mobile VAS was dampened somewhat.

What to expect from 2009?

As we welcome 2009, there are plenty of reasons to be hopeful that 2009 will bring good news for Indian Telecom sector. There is a large unmet need still in India in terms of low penetration of broadband and low Tele-densities. With about 80 million households enjoying Cable Television, there is still lot of room for cable to grow in India. India is a huge market for and has shown eagerness to adopt new technologies time and again. We expect 2009 to be similar.

In the section below, we comment on technology, industry and general trends in the Indian telecom industry that will have profound effect on the industry -

Localized trends (subscribers, Industry events and Regulation)

- **Telecom Subscriber Trends -**
    - We expect that telecom subscribers (Fixed and Wireless telephony) will continue to grow at rates comparable to the current growth rates. 2009 could see addition of about 70 million subscribers taking the total to 440 million – 445 million subscribers
    - Broadband growth will accelerate further. From current levels of 5.5 million subscribers, we could easily see broadband subscribers crossing 10 million by end of 2009.
- **Market Consolidation –**
    - Currently top 5-6 ISPs own more than 90% market share. So we are bound to see some consolidation in the space. The bigger players will enter rural and underserved parts of India by acquiring smaller local players. In addition, we will see continued interest by foreign players in Indian telecom sector by ways of direct or indirect investments.
- **3G/WiMAX/BWA**
    - While 3G and BWA auctions are still entangled in some controversies, we are confident that the auctions will take place in 2009 and most major operators are expected to launch 3G services in later half of 2009.
    - 2008 saw WiMAX gain traction as we saw Services launched from Reliance, TATA and Aircel. After auctions in 2.3 GHz and 2.5 GHz bands, we expect WiMAX deployments to accelerate. We do not expect to see any Mobile WiMAX deployments taking place in India in 2009. Most of the deployments we will see will be fixed WiMAX deployments that will compete with DSL/Cable to offer

broadband services. Moreover, we expect that WiMAX will enjoy higher levels of success in rural and smaller town India than Metros in 2009.

- **Mobile Tariffs/Handset Prices**

    - The mobile tariffs are unlikely to fall further this year. Mobile tariffs in India are already among lowest in the world and the ARPU generated by mobile customers is the lowest in the world. There is not much room to decrease the tariffs beyond these levels.

    - We also believe that GPRS tariffs will completely flatten out. We expect 2.5G operators that acquire 3G licenses will quite likely move to flat rate GPRS soon after. And they may place the entry level 3G data tariff plans close to or only a notch above GPRS plans to entice high mobile data users to move to 3G

    - We have already seen touch-screen phones on the heels of I-Phone arriving in Indian market. We anticipate more touch-screen enabled handsets will start hitting Indian markets.

    - Handset recycling will become common with brands like Nokia spreading the message and we hope to see some real progress on this front in 2009.

    - We expect that handset in all price ranges (ULCH – Ultra Low Cost Handsets to I-phone/Blackberry type phones) will enjoy growth and price drops associated with Moore's law will anyway happen. The next set of mobile subscribers however will come from rural India and as a result, ULCH is here to stay!

- **Mobile Number Portability (MNP)** –

    - MNP may become available in later part of 2009. TRAI has recommended to set up central agency (database) called MNP Centralized Clearing House. The restrictions on the agency specify that no mobile operator can have more than 10% stake in this agency. Moreover, the network upgrade costs need to be borne by the operators. While this is a welcome move from customer point, there is no incentive for operators to support this initiative and hence we believe that there is a chance that it may actually slip into 2010. However, once implemented, it may cause further troubles for already troubled PSU operators such as BSNL and MTNL. Fear of losing number is preventing many users to move away from existing providers. With MNP, that will not be the case anymore.

- **Unrestricted Internet Telephony** –

- We do not believe Internet Telephony will drive broadband growth as suggested by TRAI. That is because cellular call tariffs are comparable to VoIP calls. Besides it is cheaper to own a cellular phone than owning a computer. So removing restriction on Internet Telephony will not really make any significant change to broadband penetration levels. However, Cyber-Café in smaller Indian cities might be used by local people to make/receive telephone calls using VoIP. So future PCO (Public Telephone) of India may actually use a computer and a headset! It is expected that Internet Telephony will continue to grow at rates higher than current rates (50%)

- **Broadband in rural and smaller towns –**
  - Broadband will reach rural India through wireless media (WiMAX/Wi-Fi) instead of wired media starting this year. This will be true especially for the small scale industries and enterprises located in these areas. Retail customers in these areas are also struggling to get reliable broadband connection. As they feel need to be connected and find out that reliable broadband connections are not easy to come by, they will start depending on enhanced Wi-Fi and WiMAX type of services. This will be a niche market that some Greenfield WIMAX players will emerge to address.

- **Great year for Wireless –**
  - It is expected that 2009 will start seeing significant drop in prices for smart phones (both Wi-Fi and 3G capable phones). In addition to this, it is expected that sales of Notebook Computers will catch up with Desktop Computers as prices of notebook computers keep falling. We will begin to see notebook computers with in-built 3G (HSPA) or WiMAX chipsets along with Wi-Fi chipsets – thus giving a boost to mobile internet.
  - We should see at least some public, private or PPP initiatives to provide municipal Wi-Fi taking shape. Wi-Fi access might be available on Indian railways – at least on luxury trains as early as 2009.

- **Mobile VAS –**
  - Mobile VAS sector is at cross-roads today. Due to very low entry to barrier, way too many players exist in the field with no great prospects of making money. However, Mobile VAS players will see a resurrection of sorts when 3G is launched. Mobile banking, Mobile TV and Mobile based loyalty programs and

shopping will grow much more aggressively. We assure our readers that 2009 will deliver much more than ABC (Astrology, Bollywood and Cricket) through Mobile VAS.

- India is a country with multiple languages and we do expect to see lot of activity also taking place in the area of local language SMS. Couple of really good solutions exists today that allow people to send/receive messages in regional languages and we believe that these solutions will enjoy healthy growth in 2009 as majority of new cellular subscribers start coming from rural areas.

- **Unified Communications for Enterprises/All IP networks -**
  - Line between telephony and internet will blur further. As Indian enterprises evaluate option for implementing voice and data networks, more often than not, they will design their networks to carry everything over IP.
  - Convergence/Unified Communication will become a darling for enterprises all over India as they start reaping benefits of high levels of notebook computer and broadband penetration. Next generation collaboration applications delivered through SaaS and/or hosted IP PBX will enjoy tremendous growth. In fact, 2009 may be a watershed year for enterprise communication systems in India as they come of age by moving to all IP networks.

- **Social Networking/Location Based Services**
  - It is becoming evident that for young population across the globe, mobile phone is becoming instrument of choice to access Internet. This is in sync with their needs to be connected while on the move.
  - Keeping up with the trend, we believe that web based social networking sites and services offering location based services will get a boost after 3G.

- **Television/Set Top Boxes**
  - IPTV will start enjoying growth slowly towards later part of 2009 as operators start overhauling their networks and start deploying NGN aggressively. In addition, with Internet enabled TV entering the markets, future of set-top boxes and DVD players might become uncertain. While 2009 will not see people moving away from DVDs and Set-top boxes, this will act as another example of chance for Indian customers to leap-frog. Set-top boxes are just becoming

popular in Metros in India, but the growth might be checked if set-top functionality is absorbed within the television.

- **NGN/FMC**

    - Convergence at all levels is the key going forward. Be in voice/video/data triple play, Fixed/Mobile convergence all will require carriers to upgrade their networks to next generation IP/MPLS networks. It will be a long process and the carriers will need at least 2-3 years to be in a position to support these functionalities in totality. However, we do expect carriers to earmark budget in 2009 for upgrading their networks.

    - We believe that the Internet Service Providers will feel the need to deploy advanced probing services like Deep Packet Inspection (DPI) to better monitor their networks, prevent intrusion, viruses and spam. It will also enable the operators to provide better Quality of Service and provide lawful interception. It is likely that Indian Government will take threats posed to national security through web attacks seriously and mandate sophisticated means to monitor use of Internet, which might require operators to use tools such as DPI.

Disclaimer: Please note that these are web-sourced inputs and Tonse Telecom has not validated the claims or current state of offerings of these companies.

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