

Role of 3G in India's Mobile Future – Should India Skip 3G and go to LTE?

India continues to be one of the world's fastest-growing telecommunications market due to a progressive regulatory regime, huge capital outlays for network expansion by operators, reductions in tariffs and cost of handsets. The mobile subscriber base at the end of June 2009 has reached a new milestone with more than 409 million mobile subscribers, registering a remarkable growth of more than 50 per cent over the same period in 2008.

As of end of June 2009, mobile service revenue continues to grow at a healthy rate of 11 per cent over the same period in 2008. Voice continues to remain the major contributor to the total revenue but non-voice services also continue to grow at a healthy rate. For the India mobile market, voice services constitute nearly 88 per cent of the total revenue. For non-voice or data services which includes SMS, Internet browsing and multimedia, year-on-year growth was 33 per cent over 2008. But overall ARPU fell by 27 per cent over the same period, a rather large decline which IDC believes is due to most of the new net adds coming from pre-paid subscribers.

Continued decline in basic call charges because of cutthroat competition amongst all the telecom operators has also pushed ARPU's downward. The continuous decline in ARPU is one of the major concerns for Indian telecom operators and in order to sustain the current ARPU levels, they are now focusing on the high-end VAS, to capture the steady flow of new revenue. New VAS services will be integrated into many new applications such as messaging, entertainment, social networking, mobile advertising and desktop applications. Handset integration with VAS is also an emerging trend in the Indian VAS market.

As a case in point, Airtel has launched its award winning music on demand service also called "mobile radio service" by other operators. For this service, Airtel has got the best service provider award in the category of "Best Mobile Music, TV or Video Service" at the GSMA Asia Mobile Award 2008 at Macau. Airtel has also introduced M-commerce facility for its consumers, through which service consumers can conduct business transactions, consumers can pay their mobile bills, buy movie or air tickets, pay insurance premiums within a short span of time. Airtel acquired 1 million registered users for this service. BPL mobile also introduced Mobile Jukebox (mobile radio service), where consumers can listen to the music of their choice at any time. Vodafone in partnership with Microsoft launched SMS search for its consumers. This feature will help the user to search content like ring tones, images, local directory information and much more.

Although one could argue that India's mobile operators are so innovative that they can and will continue to derive good margins from VAS and multimedia services, the fact that they

are still on 2G technology is creating a huge obstacle for the Indian mobile operators to move to the next stage in mobile development, which most of developed Asia and some markets in developing Asia have already done. The iPhone, 3G-enabled Blackberry devices, HTC, Samsung, Nokia and LG converged devices have exploded into the Asia Pacific developed markets because of the availability of HSPA service which makes using these advanced devices much more exciting and useful than on a 2G network. In Hong Kong, Singapore, Taiwan, Australia and Korea, mobile operators are migrating to HSPA+ achieving 15-21 mbps per sector peak download speeds, and with the proliferation of HSPA and HSPA+. Even China Mobile, which has invested heavily in TD-SCDMA, is preparing for TD-LTE trials in 2010 and is revamping its entire backhaul and mobile core to transform it in stages into all-IP with a softswitch and media gateway switching fabric and fibre backhaul.

This all begs the question as to the relevance of India's push into 3G. With yet another delay in the 3G auctions, which are now expected in 1Q2010, the relevance of 3G is beginning to look less and less exciting for India. BSNL/MTNL have gotten an early start with UMTS but the big question is for Reliance, Vodafone, Tata and Bharti Airtel as to how should they balance their investment in 3G. IDC believes that for CDMA2000 operators, the migration path from EV-DO to LTE will be smoother and perhaps less costly than for the GSM/UMTS operators. IDC also believes that once the CDMA operators get the 3G spectrum, they will be able to offer a wide range of portable broadband (i.e. dongle-based services) and handset-based multimedia services in key urban markets. But, it is the GSM networks that need to be carefully looked at to determine where UMTS should be introduced and where the backhaul can be upgraded to a metro-ethernet fibre backhaul. HSPA can be a double-edged sword because users of devices like iPhone will gobble up bandwidth in unpredictable fashion so operators need to be very cautious in introducing HSPA too quickly.

Since LTE is gaining momentum with major operators in the Asia Pacific, North America and Europe, IDC believes it may make much more sense for the larger Indian operators to start investing and upgrading their networks to introduce LTE sooner than later. If sufficient spectrum were to be given to LTE operators, the LTE could be used to provide wireless broadband portable and residential service similar to what the Indian operators have already begun with WiMAX. Another approach that the larger operators can take is to simply skip 3G altogether and use Mobile WiMAX as the defacto "broadband wireless internet" technology and upgrade that if and when either 802.16m or LTE becomes commercially available.

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