

Spectrum woes plague India's cell phones

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India may be one of the world's biggest telecom success stories, but when it comes to quality of service, its mobile-telephony sector portrays a gloomy picture. Despite billions of dollars of investments over the past decade, the world's fastest-growing telecom market is still grappling with inadequate infrastructure, which is resulting in poor voice quality, dropped calls, undelivered messages, and of course, harassed customers.

According to the just released Mobile Users' Satisfaction Survey conducted by a local telecom publication Voice & Data, five out of 11

mobile operators in the country have fallen short on their performance parameters in 2005 on issues such as network quality, billing, customer care and value-added services.

The survey added that although the rest of pack (the other six of 11) managed to keep their performance parameters above those that slide, the quality of service for all operators -- except two marginal players with a combined market share of less than 8 percent -- failed to meet Telecom Regulatory Authority of India benchmark of 95 percent.

Indeed India's telecom network growth has been scorching. According to the ICRA, a local credit rating agency, India's estimated 113.1 million telephone connections in September 2005 will increase to 136 million by March this year. This would mean that fixed (or wired) line subscribers will grow at 9.4 percent over the six months while mobile (or wireless) subscribers will grow at 63 percent during the period.

However, "with operators' focus more on increasing the customer base than on improving the network performance, customers' satisfaction took a direct hit even as mobile subscriber base in India continues to grow at near-exponential rates," the survey said.

But local telecom companies are unwilling to be blamed for their user's unhappiness. According to them, the country is facing this not because telecom companies have not been paying enough attention to their network performance but the country's lopsided spectrum allocation policies and haphazard planning have acted as roadblocks to wireless telecom services.

In a recent interview to the media, Akhil Gupta, joint managing director, Bharti Tele-ventures, the leading wireless telephony operator said that telecom companies are unable to provide satisfactory connectivity "not because they are lacking in their efforts, but the Department of Telecom

(DoT) has failed to allocate adequate spectrum to the country's operators."

Spectrum is a range of electromagnetic radio frequencies used in transmission of voice, data and television. India's Global System for Mobile communication (GSM) operators get 4.4 MHz of spectrum initially while Code Division Multiple Access (CDMA) operators get 2.5 MHz of spectrum.

But when the subscribers of GSM operators cross the one million mark they become eligible for a total of 10 MHz. For crossing that level, the CDMA operators get 5 MHz, because, DoT says that since the CDMA technology carries voice in small packets, it can carry about five times more traffic and hence needs a lower spectrum.

The global average for GSM and CDMA operators is 20 MHz and 10 MHz respectively.

However, operators say that as the number of mobile users leapfrog (average addition 3 million each month), the spectrum allocation stipulated so far "is grossly inadequate to accommodate the country's burgeoning subscriber base."

The DoT though argues that the India operators have been using their spectrum allocation "inefficiently."

"All operators should move towards more efficient state-of-the-art technology and flexible usage," says a former secretary, Department of Telecom, requesting anonymity. "But the DoT has found that operators has been slow in their technology up gradation efforts that have posed barriers to spectrum reforms," he added.

The DoT also says that spectrum is a scarce resource and taking into

account the frequency spectrum used by the Army for its navigational aids and by the Railways, additional spectrum allocation, without compromising the country's security issues, is "very difficult."

Still the Parliamentary Standing Committee on Information Technology puts the blame squarely on the DoT. In a recent report this Committee slammed the department for its haphazard planning and spectrum allocation policy, and for its failure to anticipate the demand.

"The lack of planning on part of the department had led to an ad-hoc and injudicious allocation of spectrum, which in turn had caused non-availability of this scarce resource to telecom operators when they needed it the most for faster expansion", the committee said in its report.

"DoT must, therefore," it added "come out with a new, transparent and comprehensive spectrum policy, dispensing with all earlier loop holes and keeping in mind the requirement of all sectors."

Nevertheless, confronted with a severe spectrum crunch, Indian telecom operators have already started looking at new technologies to expand their networks.

These include routing mobile calls through fixed lines, use of commercial power lines to carry voice and data, integrating fixed and wireless services to have a common phone number, and WiMax-based applications.

And reportedly, the DoT too is exploring the possibility of creating an exclusive "Defense Band" for spectrum usage by the armed forces -- largest consumer of radio frequency.

The proposal is bring all frequency bands being used by the various defense agencies within a single band so that additional spectrum gets

available for civilian use like wireless telephony.

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