# AN INDIAN SUMMER

**MARLÈNE TISSOT-SELLEBRÅTEN** FINDS BRIGHT PROSPECTS ON THE SUB-CONTINENT.

**With over** one billion inhabitants and an average teledensity of only 4.5%, the Indian telecommunications market appears at first as a potential goldmine, where pretty much everything in telecoms remains to be done. The Indian Government's 'New Telecom Policy' of 1999 set targets of increasing teledensity to 7% – or 75 million telephone connections – by 2005 and to 15% – 175 million connections – by 2010, creating an investment requirement in India of around US$37 billion by 2010. "The Indian market is huge and its potential largely untapped," says Kobita Desai, senior telecom analyst at Gartner India.

This statement of growth should be accompanied by a word of caution. "The mistake investors made is to look at India and see a great big market," says Stefan Zehle, chief executive of Colageo Consulting. "But you don't necessarily make a lot of money because the market is big."

Players need to be well prepared – and not least, patient – to succeed in what appears now as an obstacle race for success. Under the current regime, applicants to international long distance (ILD) licences must pay a one-time non-refundable fee of Rs250 million (around US$5 million) assorted to an annual licence fee of 15% adjusted gross revenues. The current foreign ownership limit stands at 49%, although the February 2003 budget proposed that this limit be raised to 74%. "The high licence entry fee and annual revenue share licence fee work as barriers to entry for both foreign and domestic operators alike. This has discouraged application for ILD licences," says Dermot Keilthy, director of regulatory affairs at REACH Global Services.

Basic connectivity can also be hard to come by. "You cannot get a telephone on demand today, you have to wait six months," says Desai. The advent of competition has improved provisioning times. The government-owned incumbent operators Bharat Sanchar Nigam (BSNL) and Mahanagar Telephone Nigam (MTNL), who own around 90% of all fixed phones in India, now deploy between eight and nine million new lines per year. Wireless services will play an essential role in bringing teledensity to 15% by 2010.

"Land line phones have experienced a negative growth of 24.7% during the first nine months of the current financial year as opposed to a 73% growth in the same period in mobile telephony services," says Ritesh Shanker, senior research analyst, Frost and Sullivan India. "[This] clearly indicates the direction in which the India telecom industry is heading [with] wireless mobile telephony expected to overtake the old age land line connection very soon and also responsible for rapid increase in teledensity in India."

But despite deregulation groundwork that started as early as 1991, the Indian market is still in real need of further liberalisation. The first major roadblock was removed with the New Telecom Policy which resulted in an increase in licensee numbers. At present, only BSNL, VSNL, Reliance and Bharti are licensed national long-distance operators (NLDO). They can offer their services to connect and deal with consumers across cities.

In January Arun Shourie became minister of IT, communications and disinvestments, with plans to make telecommunications move forward. He wants to implement full transparency in resolving regulatory issues and increase the operational freedom of incumbent operators. Many hope that Shourie, who

## WHO'S WHO?

| Company | Type |
|---|---|
| Bharat Sanchar Nigam Ltd (BSNL)<br>Mahanagar Telephone Nigam Ltd (MTNL) | Government-owned incumbent<br>Sister concern of BSNL: is a fixed-line operator in two metro cities of Delhi and Mumbai and has license to operate cellular mobile services |
| Videsh Sanchar Nigam Ltd (VSNL) | Monopoly international carrier<br>– government has 53% stake |
| Bharti Telesonic | Alternative long-distance operator |
| Reliance Telecom | Alternative long-distance operator |
| NOW (Data Access) | Alternative operator |

advocates privatisation, will help accelerate liberalisation.

### ALREADY A DENSE OPTICAL FIBRE NETWORK

Holes in legislation have not hindered Indian players who have been very active in deploying networks across the territory, maybe committing the same mistakes as their European and US counterparts.

New operators Bharti and Reliance have been the champions of simultaneous rollout of networks and services, in their attempt to take the incumbent players head-on. Reliance has lain around 60,000km of optical fibre cables and should have completed most, if not all, of its network by March 2003. The Bharti group still has plans to deploy fibre through 2004, according to Neil Dunay, senior analyst at KMI Research.

KMI Research found that in 2002, India was the world's fourth largest fibre market behind Japan, the United States, and China. According to KMI, fibre deployment in India has surged in the past two years, resulting in a dramatic increase in domestic demand for optical fibre and cable. At the end of 1995, Indian players had installed 283,600 fibre-kilometres. Installations already stood at 2.5 million fibre-kilometres at the end of 2000 and KMI found a near doubling of installations at the end of 2002, to 6.7 million fibre-kilometres. The market research firm forecasts cumulative installation to reach 14.6 million fibre-kilometres by 2007.

There are already many players, considering the low telephone penetration.

"There is fundamentally competition in most areas of Indian telecoms carrier business and the consumers are starting to see the beginning of an age of choice and suppliers working for their business," says John Landau, executive vice president of product management at ITXC. India can boast another three networks deployed by national utility players RailTel, GailTel, the telecom subsidiaries of the railways and Gas Authority of India (Gail) and Power Grid Corporation of India (PGCIL), along their existing rights of way following the railway tracks and gas system and electricity grid respectively. RailTel plans to invest Rs3,000 crore over the next seven years for the

creation of its fibre-optic network. (The crore is a traditional unit of quantity in India, equal to 10 million). Gail plans investment of Rs800 crore between 2002 and 2004, for the deployment of an optical communication transmission network spanning 14,600 kilometres in the country with another Rs700 crore to follow between 2003 and 2006 for the establishment of datacentres and a bandwidth exchange. Gail's network should eventually connect 130 cities across the country. Gail has also applied for an internet service licence and plans to become a national-level ISP. PGCIL was allowed to set up optical fibre cables along its 43,000-circuit km transmission lines last February.

"Initially, those three players did not know how to leverage on their telecoms plans and there was also a funding problem," says Desai. "I do now see these utilities looking at [the services] market with more interest than is required right now," she warns. The Communications Ministry will have to decide, however, whether to allow PGCIL to enter the NLDO business by leasing out its spare telecom capacity to carry voice and data. PGCIL's proposed network would cover 56 cities across the country within two years. A PGCIL spokesperson said that the company was on the lookout for an international partner for a joint venture to provide a gateway for its optical network, preferring to remain a minority partner in any such venture.

Fibre deployment is set to slow down however as major long-haul networks near completion. Additionally, some players are already finding it too costly to provision every single route they would like to serve and have started leasing capacity.

As a consequence, KMI expects annual fibre-optic cable deployment to start to decline in 2003 at a compound rate of 15% till 2007. Despite this, India will remain an attractive market, with new network segments being lit and old networks upgraded to higher capacity.

## A VOICE CENTRIC MARKET

### Mobile and fixed wireless: showing the way towards higher teledensity

India has 24 basic telephony circles and 22 wireless circles, within which unlimited competition is possible. There are currently three private operators and the incumbent operator BSNL active in each of these circles. Together, these GSM operators have created a very dynamic growth market, proposing a competitive alternative to fixed line services. "In terms of traffic, in a year's time, the mobile network is going to generate more than half the overall traffic in India," says Zehle.

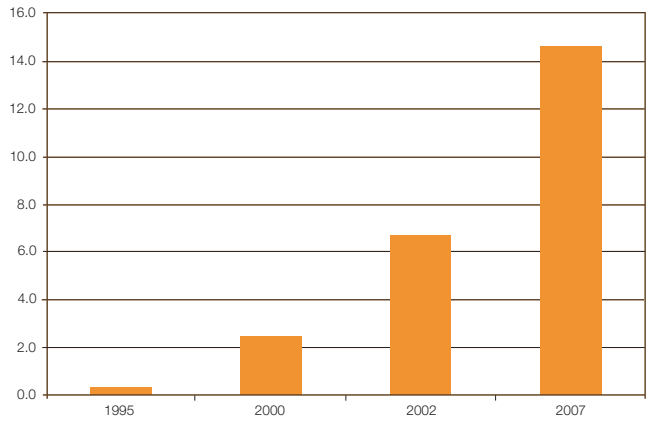
According to a recent report by the Indian Credit Rating Agency (ICRA), almost half of all telephone connections in the fiscal year ending March 2003 will be cellular connections. Year on year, in January 2003, cellular subscriber numbers had already increased 95% to reach 11.16 million. By 2008, no less than 120 million subscribers are forecasted, making India the most dynamic wireless market worldwide. "In India, for voice applications, wireless will overtake wireline in next three to five years," says Ray.

Growth had a cost for operators however as a price war resulted in massive drops in tariffs while boosting services take-up. In January 2002, minute prices fall from Rs24 to Rs9. A second wave of price-cutting saw the minute price reach a mere Rs3 in January 2003.

A new interconnect regime comes into force this month, alongside the introduction of calling-party-pays, replacing the antiquated system of caller-pays. Mobile operators who, by law, have to provide interconnection to all other parties are protesting heavily against the new regime, which renders termination on the fixed network more expensive than on the mobile network.

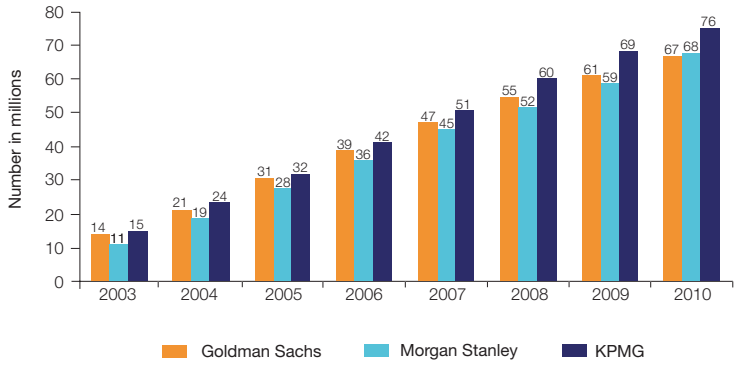
GSM operators not only have to contend with fixed services for subscriber growth, they now have to face competition from fixed wireless services or wireless local loop (WLL) services offered by wireline operators. The war started in December 2002 when Reliance Infocomm launched CDMA-based (Code Division Multiple Access) WLL services. Under the brand Reliance IndiaMobile, the service runs over a national network, with the company selecting trial consumers for the service for a complete rollout expected in March 2003. Tata Teleservices launched similar services in the six regions in which it holds licences. Bharti has yet to launch such services as it maintains its focus on GSM but it has reserved CDMA frequencies in five regions where it offers wireline services. "CDMA is expected to pose a serious threat to the GSM operators due to the

CUMULATIVE FIBRE DEPLOYMENT IN INDIA (millions of fiber-km)




*Source: KMI Research, 2003*

CELLULAR SUBSCRIBER PROJECTIONS



aggressive pricing by limited mobility players. While GSM operators had to pay heavy licence fees, no decision has yet been made on how to regulate WLL services. And as WLL services help fulfil teledensity targets, it may be a difficult decision to take. "CDMA-based limited mobility is going to encroach upon GSM as well as wire line customers," says Keilthy. "CDMA has better data-delivering capacity than GSM, hence it is expected to dominate the scene in India."

At the end of February, the Telecom Regulatory Authority of India (TRAI) announced it would submit to the Department of Trade (DoT) recommendations on increasing the number of wireless operators. "The return on investment is already below the average cost of capital because of licence fees, interconnect imbalance and rate drops," says Zehle.

## National and international wireline: great opportunities at high risk

### *National market*

According to Gartner, national long distance (NLD) accounts for 45% of total call revenues in India with an annual growth rate of 20%.

Contrary to popular belief, rural areas may become interesting markets. "Rural market does not mean poor," says Desai. After all, 70% of India's population derives revenue from agriculture. "They are people with disposable income but they are very price conscious," Desai adds. So far indeed, no player has really tapped into this market aggressively. Because extending fixed line coverage is expensive, WLL services appear here again. "The backbones are pretty well filled out but metro and local segments have not been developed at all," says Dunay.

Wireline operators are facing similar challenges to their wireless counterparts. "There is adequate competition in the domestic market at present and any further introduction of players will erode the investments of existing players," says Ray. "This is scary – we could end up with high connectivity driven by low cost of telecom but having no funds, operators..."

Operators, whether fixed or mobile, fear that the new interconnect regime will only make the situation worse. From April 1, 2003 all service providers are required to pay interconnect charges, following a directive by the TRAI to introduce an interconnection usage charge (IUC) and embedded access deficit charge (ADC), in a move to promote local services. Many claim that prices of mobile services could go down while fixed services prices could increase.

Indian enterprises are investing in their ICT infrastructure, which will no doubt fuel traffic growth as infrastructures get upgraded. According to IDC Asia-Pacific, Indian companies were particularly aggressive in terms of investment, with more than 67% indicating they planned to increase IT spending this year from 2002. Frost & Sullivan also found that India's voice equipment market would grow at a compound annual growth rate (CAGR) of 15.7% to reach $307.2 million in 2008. Voice over IP (VoIP) is however only a marginal option at present as steep price decrease almost nullifies arbitrage. VoIP is allowed only in restricted forms as call termination on the PSTN network is banned. "Considering the regulatory restrictions, quality issues and declining PSTN-based IDD and STD call charges, VoIP growth is expected to be limited," says Keilthy at REACH. "Further, as it can be accessed only from H323 terminals and PCs, this will also limit VoIP growth in the near future."

**GROWTH RATE FOR CELLULAR SUBSCRIBERS CAGR IN % (1995-2001)**

| | |
|---|---|
| USA | 24.7 |
| UK | 36.2 |
| Japan | 42 |
| Singapore | 46.2 |
| UAE | 56.7 |
| Indonesia | 71.2 |
| India | 84.9 |
| China | 109.2 |

***Source:*** *ITU 2002*

**GROWTH RATE FOR FIXED LINES CAGR IN % (1995-2001)**

| | |
|---|---|
| USA | 2.9 |
| UK | 3.1 |
| Japan | 3.4 |
| Singapore | 5.3 |
| UAE | 7.8 |
| Indonesia | 15.8 |
| India | 19.4 |
| China | 28 |

***Source:*** *ITU 2002*

The situation may be different for overseas companies outsourcing their business processes. "Outsource facilities like call centres tend to be quite sophisticated network designers and buyers, like sophisticated enterprises," says Landau at ITXC. "They may thus tend to towards global IP networks for both their voice and data connections." Aviva, Europe's largest insurance provider, said in February that it would invest in a new call centre in India employing 1,000 staff to provide customer support for its UK life and pensions business. Indeed the outsourcing trend is gradually transforming India into a hub for business process outsourcing. This market could potentially benefit the whole telecom supply chain, from equipment to international connectivity.

### *International market*

The international long distance (ILD) market was open to competition in April 2002 and has already demonstrated significant potential, despite a limited number of players and a poor last mile infrastructure. "Competition has led to steep fall in ILD prices in India which has increased the outbound traffic from India," says Shanker. Alternative operator Data Access started offering international services in July 2002 and expects its revenue to rise nearly five-fold to Rs25 billion (US$524.1 million) in 2003. VSNL, now part of India's Tata group, has kept a stronghold over this market segment but faces pressure from Data Access as well as Bharti Telesonic, a unit of India's largest cellular services provider, Bharti Tele-Ventures.

This segment, like mobile and NLD, is still voice-centric and faces profitability challenges. Not only is greater flexibility needed in pricing, basics such as settlement rates imbalance have yet to change, with one out of every five international calls being incoming. "Despite low barriers of entry, ILD is not very profitable," notes Desai. "Regarding international transit, the policy is ambiguous. We need a greater deal of flexibility in determining prices without having to provide protection charges for fixed line operators -access deficit charges in other words," continues Ray. "This way we could bring down the rates substantially."

Volumes are growing and rates falling however, albeit not as fast as operators would like. "We have not seen a wholesale increase in traffic," says Nigel Fisher, sales manager (Africa, Middle East/Indian Sub-Continent/Asia), Global Carrier Services, Cable & Wireless. "We have seen a lot more activity into India but we certainly expect more outgoing traffic." ■