

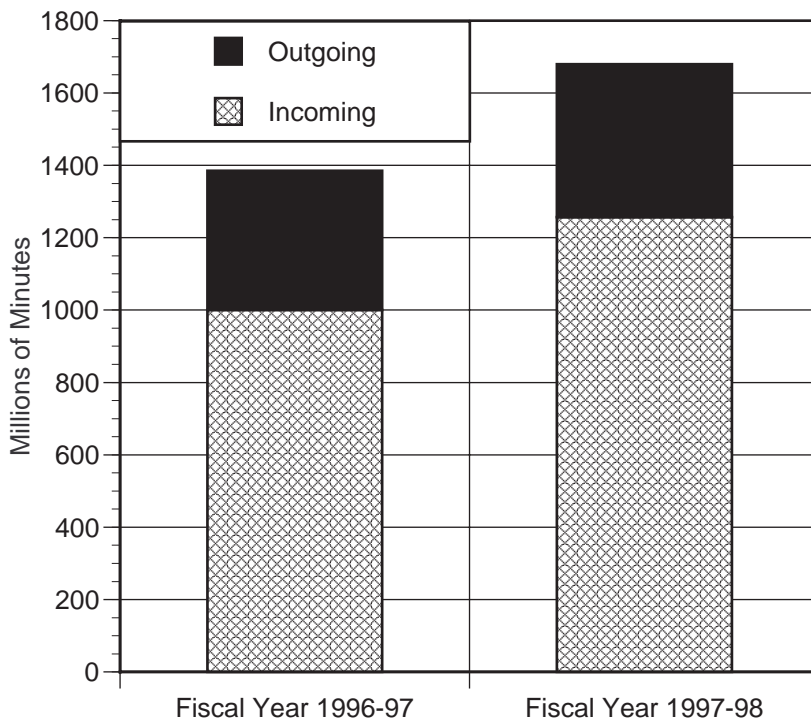
India Telecom

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Total International Traffic Reported by VSNL



Source: VSNL

INTERNET AND INTERNET TELEPHONY

ISPs in for Tough Times, According to Industry Experts

Although the Indian government has started issuing Internet licenses to private companies, industry analysts caution potential ISPs

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ISP Licensees	Service Area
Reliance Communications Pvt. Ltd.	All-India – Category A
Mahanagar Telephone Nigam Ltd. (MTNL)	All-India – Category A
Dishnet Ltd.	All-India – Category A
Bharti BT Internet Ltd.	All-India – Category A
Sparsh Communications Ltd.	All-India – Category A
Satyam Infoway Ltd.	All-India – Category A
Global Telesystems	All-India – Category A
The Tata Power Co. Ltd.	All-India – Category A
T.S. Associates Pvt. Ltd.	All-India – Category A
Jain Studies Ltd.	All-India – Category A
Sukhkarta Fin. Trade Pvt. Ltd.	All-India – Category A
MBC Satellite Communications	All-India – Category A
Thakral Computers P Ltd.	All-India – Category A
Zee Tele Films Ltd.	All-India – Category A
Punjab Wireless Systems Ltd.	All-India – Category A
BPL Telecom Ltd.	All-India – Category A
SRI Krishan International	All-India – Category A
Koshika Telecom Ltd.	UP (W) – Category B
Eclipse Network Pvt. Ltd.	Ahmedabad – Category B
N.S.Net Source India Pvt. Ltd.	Hyderabad – Category B
Manipal Control Data Electronic Commerce Ltd.	Karnataka – Category B
Tata Teleservices Ltd.	Andhra Pradesh – Category B
Internet Promoters India Ltd.	Delhi – Category B
Triko Electronics Pvt. Ltd.	Mumbai – Category B
MCS Ltd.	Delhi – Category B
Information Online Services	Hyderabad – Category B
Voice Media Internet Pvt. Ltd.	Punjab – Category B
Weikfield Mnemonix InfoNetworks Pvt. Ltd.	Pune – Category B
Punjab Communications Ltd.	Punjab – Category B
Ortel Communications Ltd.	Bhuvaneshwar – Category B
Srishti Open Systems Pvt. Ltd.	Thiruvananthapuram – Category C
Bohra Pratisthan Pvt. Ltd.	Udaipur – Category C
Manipur Electronics	Category C

Arun Girija Communications Pvt. Ltd.	Patna – Category C
Kinjaru Appliances Pvt. Ltd.	Rajkot – Category C
N.S.Net Source India Pvt. Ltd.	Vishakapatnam – Category C
Gateway Internet Services Pvt. Ltd.	Rajah-Mundry – Category C
S.K.Digital Technology (P) Ltd.	Durgapur – Category C
Suchibhi Communications Pvt. Ltd.	Satara – Category C
Cosmos Link Network (P) Ltd.	Baroda – Category C
Cosmos Link Network (P) Ltd.	Surat – Category C
Yog K Comm. Pvt. Ltd.	Indore – Category C
Yog K Comm. Pvt. Ltd.	Bhopal – Category C
Chiman Trade Link	Anand – Category C
Zaverchand Cyber Infotech Pvt. Ltd.	Vadodara – Category C
Vasant Communications Pvt. Ltd.	Dakshin – Category C
SNC Infotech Pvt. Ltd.	Ghaziabad – Category C
Surevin Consultants P Ltd.	Ghaziabad*
United Internet Communications Pvt. Ltd.	Jaipur*
Bareilly Communications Pvt. Ltd.	Bareilly*
Paliwal Financial Services Pvt. Ltd.	Panipat*
Ranchi Internet Services Pvt. Ltd.	Ranchi*
Rolta India	Mumbai*

(Source: Industry estimates)

(* - Category unavailable)

about difficulties that lie ahead.

There are many limitations facing private ISPs, such as easy access and ongoing connection to the Internet. Industry observers point out that these crucial factors are beyond the control of private ISPs, since the telephone lines used are still of a low quality provided by a state monopoly. They view the Internet business as an extension of the telecom business. Therefore, some industry observers believe it will take the companies a long time to make money.

The industry is also concerned about the lack of domestic bandwidth, which is inadequate for the projected subscriber base. Although the policy states that ISPs can set up their own gateways for international connectivity, subject to security clearances, there are no guidelines on this important issue.

Another crucial issue that could pose a problem is the backbone. Operators will be allowed to set up their own Internet backbone only after they explore other existing options. The policy also does not cover cellular operators who could also provide the backbone.

Industry observers believe it could take anywhere between 16 weeks to a year to set up Internet services.

HFCL Sets Up Software Division to Tap IT Market

Himachal Futuristic Communications Ltd. (HFCL) is planning to enter the information technology business. The company intends to focus on offering software solutions to the telecom industry.

HFCL has set up a new division within the company. The division will offer information technology solutions for telecom equipment manufacturers, telecom service providers and service industry covering large corporations.

HFCL hopes that the new division will contribute at least Rs400 million in the next financial year.

HFCL is the largest supplier of microwave radios to the Department of Telecommunications (DOT). The company's turnkey telecom division was started in 1995. It provides a range of services that include project planning, network design, equipment supply, installation, commissioning and operating support systems.

The division also provides engineering solutions on a turnkey basis for telecom infrastructure requirements of cellular and basic operators and other bulk users of telecom services.

HFCL has set up a number of large microwave and fiber optic networks.

BPL Plans Independent Gateway to Internet, Conducts Talks with AT&T and MCI

The BPL Group plans to offer an independent gateway to its subscribers. The company will be among the first ISPs to offer an international gateway other than state-owned Videsh Sanchar Nigam Ltd. (VSNL). BPL has formed a new company called BPL Net to enter the Internet sector. According to reports, the company is talking with AT&T, MCI Worldcom and Unisource to set up an independent international gateway.

BPL Net plans to set up gateways in each city. The gateways will be linked to a hub in Mumbai where the Earth station is located. The gateway in Mumbai will be linked to an international carrier.

The company plans to offer efficient, low-priced and high-quality services. BPL Net intends to provide an entire range of services, including Internet access, content, gateway and distribution services.

BPL to Launch Multimedia Products; Forms Alliance with Intel for Internet TVs

The BPL Group plans to launch a range of multimedia products, including multimedia TVs. The company intends to take advantage of the government's new Internet policy.

BPL's Telecom Business Group plans to launch set-top boxes costing less than Rs10,000. The set-top boxes will enable high-end TVs to access the Internet. The products will be sold by the end of the year.

BPL has also formed an alliance with Intel to build more sophisticated multi-usage convergence technology devices. It has also reached agreements with Microsoft and Dialogic for interactive voice response (IVR) and call centers. The company has other joint ventures with Siemens, Sanyo and Harris. The BPL Group plans to become a major player in the IT sector. It has already set up a development center in Bangalore, in the southern state of Karnataka. The intelligent building has videoconferencing, ISDN connectivity and a dedicated Earth station. The company plans to set up two more centers in Pune, Maharashtra and Thiruvananthapuram, Karnataka.

According to reports, the BPL Group also plans to set up a similar development center in Atlanta, GA.

Global Telesystems to Launch Internet Services

Mumbai-based Global Telesystems plans to launch Internet services within the next 2-3 months. It hopes to offer an entire range of services under a new company called Global Electronic Commerce Services Ltd. (GECSL).

The new company has an equity base of Rs1.37 billion. According to sources, a Singapore-based fund contributed 47 percent of the equity.

The company has won a category A license that allows it to offer nationwide services. The company will initially provide services in 12 cities, including Mumbai, Delhi, Calcutta, Chennai, Hyderabad, Ahmedabad and Kochi. The company has a mirror server network in all these cities. It plans to franchise services in smaller cities.

GECSL also plans to use its network to offer electronic-commerce solutions.

At present, Global Telesystems has a data network in the private sector in 10 major cities. This will be expanded to 27 cities. The company has established a distributed mesh topology for its network architecture with processing capacity at all locations.

GECSL will offer Internet services, international connectivity, last-mile connectivity and direct selling to subscribers. It has formed technical agreements with Microsoft to provide the Internet server, Nortel, its multiservice switch for virtual private networks, and GE for its electronic data interchange business.

GECSL has reached agreements with AFNET to distribute all of AFNET's traffic into India, and with Unifi Communications to distribute fax traffic.

Global Telesystems will offer a value-added service called GlobalNet. The service consists of e-mail, electronic data interchange (EDI), enhanced fax services, voice mail, interactive voice response service, database access, directory services, video-on-demand, and on-line transaction processing.

Wipro Launches Euro Conversion Business

The Wipro Infotech Group has launched a new service that takes advantage of the opportunities presented by Euro conversion.

This composite offering, EuroPractice, was formed under the electronic-commerce and financial solutions division of Wipro Infotech. The EuroPractice has about 40 members from various divisions of the company. Wipro has established a Euro competency center, with the mission of providing business and process solutions to enable applications in the financial and retail markets.

Wipro Infotech has developed an automated tool suite, WipEuro2002, for deployment in Euro projects. This tool leverages Wipro's expertise in the areas of retail, utilities, telecommunications and financial markets. It will be combined with its suite of Euro conversion routines, tools and project management capabilities.

Wipro is aiming at business from organizations conducting a significant volume of business across Europe.

Satyam Infoway Launches Services in Hyderabad

In November 1998, Prime Minister Vajpayee launched India's first ready-to-use private sector Internet service, SatyamOnline, in the city of Hyderabad.

Satyam Infoway, a wholly owned subsidiary of Hyderabad-based Satyam Computer Services

Ltd., received the category A license from the Department of Telecommunications (DOT) to start operating its Internet services commercially.

This elevates Satyam Infoway to the status of a national private ISP, which can provide Internet access to anyone throughout the country.

Satyam Infoway has set up a TCP/IP network, spread across 12 cities in the country. This includes Delhi, Mumbai, Chennai, Calcutta, Bangalore, Pune, Hyderabad, Ahmedabad, Kochi, Ludhiana, Coimbatore and Pondicherry.

The company plans to expand its reach to about 25 cities by the end of the year. It also plans to extend its services to the other cities through its sales partners and franchise programs.

The company has already established a strong presence in the electronic-commerce business in India.

The Chennai-based Satyam Infoway currently offers a comprehensive range of electronic-commerce products and solutions to the Indian business community, in partnership with Sterling Commerce Inc., Open Market Inc. and CompuServe Inc., all based in the US.

Recently, the company launched the first branded Web hosting services in the country, which met with excellent response from the business community.

Zee Telefilms Gets Category A License

Zee Telefilms Ltd. was granted a nationwide category A license by the Department of Telecommunications (DOT). This will allow the cable operator to offer Internet services over coaxial cable, which provides a much faster connection.

Rolta Plans Internet Service in Mumbai

Rolta India plans to start providing Internet services in Mumbai in March 1999. Rolta India is a Mumbai-based information technology (IT) company and currently focuses on CAD/CAM services. It will invest about Rs500 million in the project.

The company also plans to set up an Internet center in Mumbai and will focus largely on corporate clients. Rolta was granted a license by the Department of Telecommunications (DOT).

It plans to offer a number of value-added services, such as Web page designing, setting up Web servers and Web hosting, in addition to connectivity.

Maharashtra Government to Include IT in School Curriculum

The government of Maharashtra has announced plans to start including IT in the school curriculum in 1999.

The government hopes to compete with other strong IT states, such as Karnataka and Andhra Pradesh.

The Maharashtra government wants to set up computer laboratories in government-aided schools and encourage private participation.

HP to Become More Aggressive in PC Market

Hewlett-Packard (HP) plans to aggressively market PCs in the Indian market. The company currently has about a 3 percent share of the PC market. However, it holds over 70 percent of the market share in the printer industry.

HCL is the market leader in the PC business, with a 10 percent share, followed by Compaq and IBM, with market shares of 8.2 percent and 7.1 percent, respectively.

HP hopes to increase sales by reducing prices of its lower-end PCs.

Rajeev Arora Appointed Chairman of Internet Service Providers Association of India

Rajeev Arora, the chairman and managing director of Datapro Infoworld Ltd., has been appointed chairman of the Internet Service Providers Association of India.

Silicon Graphics to Focus on ISP Market

US-based Silicon Graphics plans to focus on the ISP market in India. The company, which concentrates on high-end supercomputers and the visual-computing segment, has suffered a 25 percent drop in revenues in its Indian operations due to sanctions.

The company's Indian subsidiary, Silicon Graphics Systems (India) Ltd., plans to focus on the emerging Internet market. It hopes to corner about 35 percent of the Internet market in the computer parts business. The company expects the ISP market to form about 10 percent of total revenues by July 1999.

Silicon Graphics is reported to be negotiating with potential ISPs for its servers and networking equipment. The company recently lost an opportunity to sell equipment to Mahanagar Telephone Nigam Ltd. (MTNL).

Internet Technology Will Help Reduce Phone Tariffs

The Prime Minister's Task Force on Information Technology (IT) plans to offer long-distance services at one-fourth the existing tariff in 100 villages using Internet technology. It plans to connect the villages in the state of Maharashtra using the VSAT network of the National Informatics Center (NIC).

The task force has already installed a high-speed VSAT and a radio frequency hub as part of the project. One of the advantages of the Internet telephony is that it reduces the cost of setting up of telephone connections in villages.

IT Bill to be Debated in Current Session of Parliament

Ravindra Gupta, Secretary of the Department of Electronics (DOE), has stated that the Information Technology Bill will probably be debated by the Parliament during the current session. However, the bill may not be passed in this session because it requires amendments to the RBI Act, the Telegraph Act and the Indian Penal Code.

The Information Technology Bill will incorporate electronic commerce as well.

BUSINESS ORDERS

NEC to Supply Telecom System to Hughes Ispat in India

NEC Corp. announced that it has reached an agreement with Hughes Ispat Ltd. (HIL) in Mumbai, India, to supply its telecommunications system. HIL's telephone service started on October 30, 1998, in the state of Maharashtra.

As a private company, HIL is the largest telephone service provider in India. At the beginning,

about 60,000 lines will be operational. According to sources, HIL will employ NEC's telecommunications systems in this stage.

HIL is planning to install approximately 600,000 lines of telephone network infrastructure within three years.

NEC expects to supply public telephone switching systems, fiber and radio transmission systems, access systems and network management systems to HIL. NEC anticipates orders to total approximately US\$200 million in three years.

In India, the telephone penetration rate is currently only 1.7 percent. The present five year plan (1997-2002) calls for a 2.5 time increase in the number of telephone lines. As one of India's activities to improve telecommunications, the market was further deregulated and privatized in May 1994. Since then, many private companies have started businesses providing telephone and mobile communication services.

In light of this, HIL has been established as a joint venture of Hughes Electronics Corp., Alltel Corp. in the US and the Ispat group, its Indian partner.

Maharashtra has an economic center, which accounts for approximately 20 percent of India's gross national product.

HIL has decided to employ a sophisticated telephone network infrastructure using the most advanced telecommunications technologies, such as ISDN, intelligent network, SDH and digital subscribers network for fiber to the offices.

NEC started business in India in 1956 when it exported microwave systems to the country. That also marked the start of NEC's international business. In 1961, NEC established a liaison office in New Delhi.

Since then, NEC has been involved in business in India on a technology-transfer contract basis. To date, NEC's business in India is calculated at approximately 120 billion yen.

Cable & Wireless Selects Controlware to Deliver Leased-Line Backup Equipment for the Standard Chartered Bank

Standard Chartered Bank, a multinational financial institution with customers throughout India and overseas, enhanced its network reliability by providing ISDN backup to its leased-line network. Together with its network operator, Cable & Wireless, the company has selected Controlware's IDB-64/2 to detect the failure of leased lines and to install an alternative backup path over the ISDN.

During the first phase, ISDN backup is provided for approximately 25 leased-line circuits among the major Indian cities.

The next step will include the backup of all leased lines.

Utech, Controlware's distributor in India, offers the IDB-64/2 for each circuit. After evaluating various options, Cable & Wireless and Standard Chartered Bank were ultimately convinced of the IDB-64/2's significant advantages for network backup.

By using the Controlware solution, data is transparently transmitted without any need to change routing tables or to convert protocols.

At the same, time network uptime reaches nearly 100 percent. In order to centrally control and manage the entire network, the Controlware NMS Taxidriver delivers the complete backup network status to the management center in Bangalore, India.

CELLULAR

MTNL Ready to Enter the Cellular Market

Mahanagar Telephone Nigam Ltd. (MTNL) is gearing up to offer cellular services in Delhi and Mumbai. According to reports, the private cellular operators in the two cities have decided to withdraw their appeal petition in the Delhi High Court against MTNL's proposal to enter the cellular service sector.

The Cellular Operator's Association of India (COAI) initially viewed MTNL's entry in the metropolitan cellular business as a clear violation of the DOT's tender norms, which stipulates two licensees per service area.

However, the companies are expected to retract their petition before December 17, 1998. This follows reports that the government's Group on Telecom (GOT) will de-license telecom services as part of a bailout package for the besieged industry.

The 12 member group, headed by Jaswant Singh, is considering replacing the license fees with a revenue-sharing arrangement. The group also would like to eliminate the current duopoly in cellular services. This will allow MTNL to operate services in both metropolitan areas.

According to industry observers, MTNL is in a position to offer cellular services in Delhi and Mumbai in the second half of 1999.

The government-owned company, which provides basic services in both cities, had planned to enter the cellular market in 1998. However, its plan was struck down by the Telecom Regulatory Authority of India (TRAI).

MTNL plans to initially provide services to 100,000 subscribers in Delhi and Mumbai. Company officials have said that, ideally, there should be no difference in charges between wireline and wireless services, other than airtime charges.

MTNL already has a metropolitan network and exchanges in both cities. Therefore, it just needs to install microwave towers on each of its exchanges and link them to create a cellular infrastructure. This process can be completed in a month.

MTNL is expected to award a US\$1 billion contract to equipment suppliers for building networks. The contract has drawn the attention of global companies, such as Motorola, Nokia, Siemens and Ericsson. It is believed that offers will be made on the basis of turnkey projects.

MTNL needs to retain the high-end user in order to survive and prosper in a competitive environment. According to the Telecom Commission, high-end users constitute about 10 percent of the subscriber base and 90 percent of MTNL's revenue.

GMPCS

DOT to Speed Up Procedure for GMPCS Licenses

The Department of Telecommunications (DOT) has started the process of granting provisional licenses to six applicants for global mobile personal communication services (GMPCS). The companies include Reliance Communications, Afro Asian Satellite Communication and ICO Global Communications.

On October 23, 1998, the government granted Iridium India Telecom Ltd. (IITL) a provisional license on to operate services in India.

GOVERNMENT AND TELECOMMUNICATIONS POLICY

Jagmohan Appointed as New Minister of Communications

Jagmohan has been sworn in as the new Minister of Communications. Jagmohan is a former civil servant and served as the Governor of Jammu and Kashmir and Lieutenant Governor of Delhi and Goa. He is the third Communications Minister since the BJP-led coalition government came to power in March 1998.

Government Sets Up Panel to Assist Private Investment in Telecom

The government has appointed a high-level panel to facilitate private investment in the telecom sector. The Focus Action Group on Private Investment Promotion will promote activities and follow up on issues relating to project implementation.

The Department of Telecommunications (DOT) set up the seven-member panel. The panel plans to interact with business and industry associations and recommend policies to increase private investment in telecommunications.

Telecom Operators Asks Government to Reduce Cap on Interest Rates on ECBs

Telecom operators have asked the government to reduce the cap on interest rates on external commercial borrowings (ECBs). If approved, this will allow operators to raise funds in high-yield debt markets abroad.

Most operators cannot achieve financial closure because of the lack of market support. They believe that the inability to receive full financing is a major reason leading to the failure of the national telecom policy. Most operators have relied on international capital markets to raise funds because of the scarcity of domestic capital. However, the Asian financial crisis has made it increasingly difficult for Indian operators to attract foreign capital.

MTNL May Buy Back Shares

Mahanagar Telephone Nigam Ltd. (MTNL) may become the first public sector company to buy back its shares. According to sources, such a proposal is being considered in the Finance Ministry.

One reason for the proposal is that the government may not be able to meet its disinvestment targets for fiscal 1999. MTNL, a cash-rich company, is in a position to buy back shares.

MTNL profits increased by 17.5 percent during the first half of 1998-1999 compared to the previous year.

DOT Resists MTNL's Bid to Provide Basic Service in Chennai

The Department of Telecommunications (DOT) is attempting to disrupt Mahanagar Telephone Nigam Ltd.'s (MTNL's) plans to provide basic services in the Chennai circle. Recently, the Prime Minister promised the Chief Minister of Tamil Nadu that MTNL's area of operation would be extended to include Chennai.

At present, the DOT provides basic phone services in Chennai. MTNL currently provides basic services in the cities of Mumbai and Delhi. Although MTNL operates in two cities, its revenue is about one-third of the DOT's. According to sources, the Prime Minister has also suggested that MTNL be allowed to provide services in Calcutta. However, the DOT is reported to be resisting both

proposals. The DOT has argued that if it is to remain profitable, it must continue to provide services in these high-revenue regions. Chennai currently has a waiting list of 75,000-100,000 subscribers. It is widely believed that MTNL will improve services in the state.

MTNL is very interested in providing services in Chennai, which has an above average revenue of Rs1,400-1,500 per line per month. This will benefit MTNL in increasing its profits, which have stagnated at approximately Rs1,200 per line per month in Delhi and Mumbai.

MTNL to Offer Services for Business Users

Mahanagar Telephone Nigam Ltd. (MTNL) plans to offer a number of new services to business users. These include intelligent network (IN), free phone (FPH), virtual card calling (VCC), premium rate service (PRS) and virtual private network (VPN) services.

These services are expected to constitute a major source of revenue in the future.

ISDN

VSNL Starts ISDN Services for Software Exporters

Videsh Sanchar Nigam Ltd. (VSNL) has started offering software exporters ISDN services on the Internet. VSNL also proposes to add an additional 8 MB dedicated link between Pune and the US.

The VSNL center in Pune has an existing bandwidth of 5 MB. The addition of 8 MB will provide a dedicated Internet link to the US. There has been a dramatic increase in exports from Pune in the state of Maharashtra. This will greatly benefit software exporters, since the Internet is the most inexpensive method of transmitting information.

TRAI Proposes Penalties for Poor Services

The Telecom Regulatory Authority of India (TRAI) has proposed penalizing operators for poor services. This would apply to the Department of Telecommunications (DOT) and private operators. The TRAI has proposed that operators be required to offer a rebate to consumers for poor services in some cases. The regulator has also proposed establishing an ombudsman for customers to address their grievances. The TRAI would like to set benchmarks for the quality of various services. It has proposed that 80 percent of telephone or pay phone faults be rectified within 24 hours, 95 percent within 72 hours and 98 percent within three to seven days.

It has also proposed that operators should provide a new telephone connection to a consumer within two weeks of administrative sanction.

PAGING

Paging Industry Unable to Meet Initial Growth Projections

Although paging subscribers are estimated to reach one million, the industry is reeling from financial losses. According to the Indian Paging Services Association (IPSA), the industry has lost over Rs3 billion in the last few years. The market has not lived up to initial optimistic forecasts. The paging market was projected to climb to over 2 million by the year 2000, with a total growth rate of about 35 percent. The industry believed that paging operators would reach the break-even point in two to three years. Most operators privately admit that these growth projections cannot be achieved.

Operators are unable to invest in market development at a crucial time for an emerging market such as India. These problems have eroded the confidence of foreign investors. Low monthly rentals and market penetration have led investors to question the financial prospects of paging projects. Many foreign investors have withdrawn their support. The Asian financial crisis has also had a negative impact on the sector since a large number of foreign joint-venture partners such as Shinawatra and Korea Telecom and Asian banks are facing problems.

DOT Creates Short-Distance Facility to Help Paging Companies

The introduction of a short-distance coverage area facility (SDCA) by the Department of Telecommunications (DOT) is expected to aid the paging industry. Although the sale of pagers remains slow, the introduction of an SDCA will increase market penetration in rural and semi-urban markets.

Calls to adjacent SDCAs, which are currently long-distance calls, will be charged a local-call rate of three minutes per call unit. Earlier, the local area was restricted to a 5 km radius from the telephone exchange or the municipal boundary, whichever was greater. Under the new policy, anomalies in the present system will be removed. Therefore, rural subscribers will have a larger local calling area than urban subscribers.



SATELLITE

VSNL's Gateway in Hyderabad Delayed by a Year

Videsh Sanchar Nigam Ltd.'s (VSNL's) proposed gateway in Hyderabad, Andhra Pradesh, may be delayed by for more than one year. The gateway was originally scheduled to become operational by December 1998. VSNL would like to strengthen its presence in Hyderabad, since the city is fast growing as a hub of activity in IT-related fields.

TARIFFS

DOT, MTNL, Private Operators Fear Lower Revenues from TRAI's Proposals

The Department of Telecommunications (DOT) has stated that the new tariff structure proposed by the Telecom Regulatory Authority of India (TRAI) will lower its revenues by 38-55 percent.

The TRAI presented a consultative paper calling for an increase in telephones rentals and local call charges, while substantially reducing domestic long-distance and international charges.

The main proposals in the paper include a cut in international and domestic long-distance call rates, waiving charges for incoming calls for mobile phones and simplifying the multi-slabs system for local calls by proposing a two-slab system of free and paid calls. The DOT has suggested that long-

distance rates be reduced 15-20 percent instead of 50 percent, as proposed by the TRAI. Private basic operators have also stated that the proposed tariffs will erode their revenues by over 30 percent. The DOT and private operators have urged the TRAI to restructure tariffs gradually and review the impact of these changes on demand, traffic and revenues. The Association of Basic Telecom Operators (ABTO) has told the TRAI that the proposed rentals were below cost-based limits. It has asked the authority to rebalance tariffs on revenue-neutral grounds. The ABTO favors 75:25 revenue sharing for interconnection between private operators and the DOT for all domestic long-distance and international calls.

Mahanagar Telephone Nigam Ltd. (MTNL) has said it is unable to implement the TRAI's recommendations. It has asked the regulator to implement increased rentals in two phases.

Cellular operators have asked the TRAI to implement different tariff structures in metropolitan and non-metropolitan regions. Recently, the TRAI suggested that cellular subscribers not be charged for incoming calls. The TRAI's proposals failed to consider the technological disparities in the country. The proposals were criticized on the grounds that they discriminated against regional operators.

Tariffs for Interconnection

Number of PCMs	Existing Port Charges (Rs per Port)	Proposed Charges (Rs per Port)
2	216,200	36,940
4	108,100	36,940
8	54,100	36,940
16	30,600	20,470
32	20,400	12,840
64	15,400	9,030
128	12,900	7,120
256	N/A	6,170

Iridium India to Announce Telephony Tariff Structure Soon

Iridium India is expected to announce its tariff structure for global satellite telephony in the near future.

According to reports, the company plans to launch commercial services in India in 1999.

Industry observers believe that, due to the widespread use of cellular phones in the corporate sector, Iridium will instead focus on vertical markets such as oil and expedition companies.

The rates for GMPCS are estimated to be approximately US\$7 per minute. This is much higher than Indian cellular tariffs, which are among the lowest in the world when measured in US dollars.

The Department of Telecommunications (DOT) has set license fees for GMPCS projects at 16 percent of gross revenues plus Rs10 million, which is high, according to industry observers. Therefore, it will be a while before Iridium India reaches the break-even point.

Iridium India Ltd. is a joint venture between a consortium of Indian financial institutions and the Network Management Group of Motorola Inc. of the US. Iridium India is headquartered in Mumbai and has invested US\$70 million in Iridium LLC.

The consortium of financial institution investors led by the Industrial Development Bank of India (IDBI) include Infrastructure Leasing & Financial Services Ltd. (IL&FS), State Bank of India (SBI), The Industrial Credit & Investment Corp. of India (ICICI), EXIM-Bank, General Insurance Corp. of India (GIC), Housing Development Finance Corporation Ltd. (HDFC), IL&FS Venture Fund, Life Insurance Corp. (LIC) and the Unit Trust of India (UTI).

TENDERS**Government of India, Department of Space, INSAT Master Control Facility Invites Tender**

The Director, INSAT Master Control Facility invites sealed tenders for the following:

- File Number:MCF:PA:F:2545/98-99:C-Band Low Noise Amplifier
- File Number:MCF:PA:F:2553/98-99: 1:2 Redundant LAN, Hub Mountable System with local control unit

Bids must be submitted by January 4, 1999. Tender documents giving detailed specifications can be obtained from the Assistant Purchase Officer, INSAT- Master Control Facility, P.B. No.66, Hassan 573 201 Karnataka, India.

Interested companies must send a crossed Demand Draft for a tender fee of Rs100 for SL. No.1 and Rs200 for item SL. No.2.

The Demand Draft should be payable to the State Bank of India, Hassan in favor of the Accounts Officer INSAT-MCF, Hassan.

Oil and Natural Gas Corp. (ONGC) Ltd., Mumbai Regional Business Center Invites Tender

The General Manager (MM), E&C, Divisions, Oil and Natural Gas Corp. Ltd. (ONGC) invites tenders under the two bid system on turnkey basis for the supply, installation, commissioning and integration of the Integrated Communication Network-SATCOM System.

The scope of work includes the following:

- Setting up a network management system (NMS) at the Uran Earth Station and expanding the DAMA/SCPC system
- Augmentation of the existing Earth stations in Dehradun, Baroda, Hazira, Geleki, Agartala, Jodhpur and Rajahmundry with the DAMA-SCPC system.
- Setting up 6.1 M Earth station at Vasudhara Bhavan, Mumbai with the DAMA-SCPC system
- Setting up higher-capacity VSAT stations (4.5 M), with the DAMA-SCPC system in Delhi, Chennai, Calcutta, Ahmedabad and Ankeleshwar
- Setting up VSATs (3.8 M) with the DAMA-SCPC system in Cambay, Mehsana, Jorhat, Silchar, Karaikal Panvel and Narasapur
- Other miscellaneous hardware such as test equipment and UPS
- Responsibility for total system integration, including interfacing radio systems with SATCOM system as required

A detailed scope of the work is outlined in the bidding document. The tender document will be available until January 14, 1999. The documents can be purchased from the following offices of ONGC:

- General Manager (MM), E & C Division, ONGC, MRBC, 15-E, Maker Tower, Cuffe Parade, Mumbai 400 005, India
- Deputy Manager (MM), ONGC, 7th Floor, Tower-11, Jeevan Bharati Bldg., 124, Indira Chowk, New Delhi 110 001, India
- Deputy Manager (MM), ONGC, Thalamuthu Natarajan Bldg., 8th Floor, (West Wing) 8, Gandhi Irwin Road, Egmore, Chennai 600 008, India

- Deputy Manager (MM), ONGC, Geoscience Division, 50, Chowringhee Road, Calcutta 700 071, India
- Deputy Manager (MM), Materials Department, ONGC, Technical Business Group, Tel Bhavan, Dehrdan, UP 248 001, India

CONFERENCES

US-India Business Council to Hold Investment Summit

The US-India Business Council (USIBC) will host an Investment Summit titled The Dynamic South on January 20-21, 1999.

It will feature the Chief Ministers of Tamil Nadu, Karnataka, Kerala, Pondicherry and Andhra Pradesh.

Also featured are the Union Ministers of Industry (Sikandar Bakht), Finance (Yashwant Sinha), Deputy Chairman of the Planning Commission Jaswant Singh and senior officials from other Indo chambers of commerce, such as FICCI, ASSOCHAM and ABC.

The price is US\$550 for USIBC or ABC members and US\$650 for non-members. Participants will be able to attend one of four USIBC Missions to see the State Governments listed above.

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