# Database Industry in India: A Current Scenario

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#### Abstract

This paper attempts to summarise the databases commercially availabile in India to the general public. These may be available either on floppies or as on-line or in CD-ROM format. Some important vendors with details of the database, coverage, scope, etc. are discussed.

# **1. INTRODUCTION**

The Database Industry in India is of recent origin, less than 5 years old. Thanks to the liberalisation process started by the Government, an awareness about the importance of information as an indispensable resource for industrial growth has set in. As a result, corporations are ready to pay for useful information, if provided in digestible capsules.

Growth in telecommunication and data networking facilities coupled with the onslaught of computers in every sphere of industrial activity, has paved way for a variety of information services, like online services, bulletin boards, value added news broadcasting services, interactive video and the like, hitherto unknown to Indian customers.

# 2. DATABASE VENDORS IN INDIA

Some important vendors in India for commercial databases either on floppies or for online searching or in CD-ROM format are : DART, BI Infotech, Capital Market, CMIE, FICCI and Spectrum. Details of some of the database, coverage, scope, search facilities, special features, price, etc. are given here. The addresses of the suppliers discussed in the paper are given in the Appendix.

# 2.1. DataServe (BI Infotech)

Business Infotech is a Bombay-based company belonging to the Business India newspaper group. This company also offers e-mail service under the brand name aXcess. There are ten databases on DataServe. The databases related to finance are Stock Market, Forex (Foreign Exchange), Money Market and Commodity Market. All the four are aimed at financial analysts, consultants, investors, corporate executives, etc.

The database on stock market gives information about the daily prices of stocks at Madras, Bombay, Delhi and Calcutta Exchanges, top gainers and losers, etc. The Forex database provides information about the exchange rates for different currencies, OTC rates, London rates and RBI \$ rates. Information about call money, discount rates, Government securities and overseas rates for different currencies are listed in the Money Market database. In the Commodity Market database, information about commodities, metals, yarns, bullion, steel, drugs, etc. is given.

Other databases providing information of general interest are Business India, Express Computer, Business India Newsnet, Headlines Today, Computer Mart, and Airlines Time Table.

Business India is the online version of the fortnightly magazine under the same name. It provides selected articles (about 80%) in full text format without graphics. Express Computer is the online version of the weekly tabloid commercial newspaper of the same name. All news items and articles, except the advertisements are covered in the database. Computer Mail is a Yellow Pages directory for Computer Industry. Airlines Time Table helps the user find out details of all flights available connecting any two cities.

In all the above databases, searching is simple. The user is provided with a menu of heading/titles to choose from and see the information on the screen. This information can be printed or saved on to a disc.

Business India's databases are available for subscription to public in all cities covered by INET directly or by telephone to the nearest INET city via STD. Interactive querying is not possible, i.e., one can not seek specific information say, locate all articles dealing with e-mail or database!

A 'Bhavsheet' facility on aXcess (e-mail service of Business India) allows the user to specify the stock exchange and the date to get information related to that date and the exchange, and this information can be down-loaded on to a disc.

For using e-mail and database services of BI Infotech, there are basic charge and usage charges. The basic charges include a one time registration charges and annual rentals. Depending on what you need-e-mail only or DataServe, and whether you need DOS/Windows/LAN version-you pay anywhere from Rs. 2,700 to Rs. 7,500 initially. All e-mail users (at a minimum charges of Rs. 2,700) get free access to the Newsboard (databases providing information of general interest). Usage charges are complicated. The variants are : regular time/prime time, domestic or international, in your own account or the company's, attachments, etc. There are connect time charges and volume charges. Connect time charges vary from Rs. 0.25 per minute for first ten minutes to Rs. 3 per minute beyond 30 minutes. For prime time, the rate doubles. Through INET, it is Rs. 5 per minute.

In the case of Business DataServe, there is an initial one time fee of Rs. 1,500 and annual rental of Rs. 6,000. There are no volume/information charges except for the connect time charges (same as for e-mail as mentioned above).

Business DataServe enjoys a subscriber base of 2,000 DataServe members and 8,000 aXcess e-mail users. All aXcess e-mail subscribers can reach Internet e-mail addresses via e-mail.

# 2. ECOSCAN (CRISIL)

The Credit Rating Information Services of India Ltd., Bombay has developed ECOSCAN—an electronic database on Indian economy, macro-economic statistics on Indian economy, agriculture, industry, tertiary sector, Government, money and prices, national income and people. The database is provided on a set of floppies and occupies 14 .MB space on hard disc. It is updated every month. Data is provided in the form of weekly, monthly and annual statistics.

Using the front-end menu-driven program to analyse the data, one can find currency rates and growth rates, deflate monetary values, plot graphs and even cross tabulate data. The online version is not yet available.

# 2.3 CIMM (Centre For Monitoring Indian Economy)

Centre for Monitoring Indian Economy is a pioneering organisation for providing economic information on various aspects of Indian Economy and Industry. Their basic service, Economic Intelligence Service consists of more than 75 publications of different periodicity in the following categories:

- □ Current economic situation
- □ Economic policies
- Basic statistics
- World economy
- □ Special topical ad hoc reports
- □ Industrial sector/business units.

This massive set of publications runs into about 8,000 pages/year and costs Rs. 18,000 per year.

Another important service started a few years ago is the Corporate Information on Magnetic Medium (CIMM). CIMM provides corporate analysis and industry research data on 3,000 companies in India, under 60 industry groups on investment, technical, production, financial ratios, annual returns, etc. Product sales, monthly share price performance, news abstracts about the company are also given. Financial coverage goes back to 1988. Share prices from 1992 are provided. Search using complex Boolean operations (AND, OR, NOT) is possible. The database is highly structured and pre-coded. Nearly 110 MB of quantitative data is supplied initially on floppies/magnetic tape on subscription. Thereafter, weekly updates are provided on floppies. Subscribers in Bombay and Delhi can have daily updates which can be down-loaded via modem. Since December 1994, CIMM started providing Dial-up aXcess to their central Cybase 10 server. It will soon be extended to Bangalore and 12 other state capitals by the end of 1995. The subscription cost of CIMM is Rs. 80,000 for the first year and Rs. 20,000 for subsequent vears.

CMIE possess one of the most voluminous databases in India. The volume exceeds nine GB and plans are afoot to expand it to 29.5 GB in the near future. CMIE data is also offered for online access via DIALOG. At the end of December 1994, there were about 200 subscribers to CIMM services.

#### 2.4 India Online (DART)

Dataline and Research Technologies (India) Limited is a member of Dalal Street Journal (DSJ) group. They are pioneers in providing information on corporate sector for investment decisions. They have their own network linking all important cities with 64 kbps leased data lines covering Bombay, Delhi, Ahmedabad, Calcutta, Madras, Hyderabad, Bangalore and Mangalore. DART offers DARTMAIL, and information services under the name India Online.

India Online offers real time access to the world of money, share prices, etc. DART's IDSS (Investment Decision Support System) has been well received and has a large customer base (more than 2,000). IDSS is an electronic database containing corporate financial and performance data of 4,200 companies dating back to seven years. Annual reports, scrip prices, sales, company news, raw materials consumption data, commodity prices, etc. are covered. The information is supplied in a set of about 18 floppies initially. A Windows-based frontend retrieval program helps the user analyse problems of the data and generate custom made reports. Weekly updates are available for down loading via modem through a phone line.

For those who do not have modem, weekly updates in floppies are sent through courier. Prices vary according to modules chosen and the initial basic set was available at Rs. 16,000 (in 1993).

The database is also available in CD-ROM format with monthly updates. DART will be launching a new service called Trader Workstation 2000 by the middle of 1995. TW2000 consists of a specially designed workstation 486SX, 8 MB RAM, 200 MB HD, 1.44 MB FDD, super VGA colour monitor and Hayes compatible modem; leased line connection to nearest DARTNET node is also included. The subscriber pays around Rs.1.5 lakhs per year.

Information and services available on TW2000 are listed below :

- Live guotes from Bombay Stock Exchange.
- Live quotes from OTC and NSE.
- Facility to plot price charts in real basic mode.
- Live announcements from stock exchange like bonus/rights, AGMS, book closures, etc.
- CERC (DART owned Corporate & Economic Research Centre) index of 300 scrips.
- Broker's commentary.

- New issue announcements.
- Brief company profiles of 4,000 Indian companies.
- CERC analysis of corporate/financial events.
- Daily headlines from major dailies.
- Real time news feeds from news agencies.
- Forex pages showing movement of rates.
- Commodity prices from exchanges/ associations.

TW2000 comes with sophisticated GUI based software enabling users to (a) do real time chart preparation, (b) track scrips, (c) set triggers to alert him about predetermined events in the market (audio/visual alerts), and (d) track news with key words. Keyword based event triggering is also envisaged.

DART also houses external databases, say for example, JURIX—the legal database. DART has acquired Dataline Asia Pacific Ltd. and Asia Data Centre Ltd. (both based in Hongkong) and is likely to be a major online vendor in the near future.

# 2.5 CAPITALINE 3.1 (Capital Market, Bombay)

Capitaline is a Windows 3.1 based database of 2,500 corporations registered with Indian stock exchanges. Exhaustive Information of each company is given in the following heads :

- Name, Chairman/CEO, Registered office address
- Registrar address, Plant location, Collaboration, Share hold pattern
- Share price data for past 10 years, Expansion plans
- Auditors Report, Raw materials
- Finished products, Business history for 25 years

- Director's report, Chairman's speech
- Names of Bankers, All schedules of Profit & Loss, Balance Sheet
- Five years Balance Sheet, Five years Profit & Loss Account
- Half yearly report (first half), Half yearly report (second half)
- Absolute & Ratio formats, Quoted shares, Subsidiary companies, and
- Detailed corporate scoreboard.

The database and accompanying software are easy to use. Updates are provided weekly by floppies via courier. Daily updates are also available via modem download, using PSTN phone lines. The data covers 2,500 Indian corporations, comprising of 202 industry classifications, 230 industry house classifications, 35 collaborator country and 20 joint sector, etc.

The database provides for multi-media content. Video, scanned images, audio clips, etc. can be incorporated. Chairman's speech in original recorded voice, video clips of plant in operation, etc. are possible. The companies data can be analysed on the screen and compared with the performance of other companies in the same group or with industry averages. Products used by or produced by nearly 25,000 corporations, are classified by BTN. Financial forecasts on the performance of a company in question, say on the changes in excise rate, can be seen quickly.

Single user version costs about Rs. 50,000 and more than 1,200 installations are present.

#### 2.6 BISNET (FICCI)

The Business Information Network organised by Federation of Indian Chamber of Commerce and Industry, New Delhi is a comprehensive service for the business and Industry as a whole. Many databases are online and quite a few are searchable via conventional manual method.

Information on the following topics is provided in BISNET :

- Government policies and procedures for trade/commerce
- Domestic and global business news
- Government quantitative data of plans, targets & achievements
- Business/industry/technology profiles
- Online registration of offers of supply of service/product and receipt of counter offers
- Calendar of coming events
- Bibliographic database of books and journal articles, and
- Kompass India Business Directory containing 70,000 addresses.

The databases are pre-classified to a greater degree. In most of the cases, queries can be posted online and replies retrieved quickly. The access is through PSTN and INET X.25 or X.28 protocols. BISNET also accepts queries by fax, e-mail, or the ones left in the mail box during an online session.

BISNET has been set up at a cost of Rs. 60 lakhs and uses Progress RDBMS for database organisation.

Broadcasting of subscribers' offers to a large number of bulletin boards abroad is claimed to be an important feature. (World Trade Centre, Bombay offers similar but better service). Anyone in the 89 Indian cities linked through INET can benefit by BISNET.

Any Indian or foreign business house can become a subscriber. Charges vary according to needs and usage. Permanent one-time subscription is Rupees one lakh plus Rs. 3 per page of Information retrieved. When you pay Rupees five lakhs (one time fee) there are no usage fee. At the lowest end, you can start with just Rs.3,000 per year per database plus Rs. 5 per page of information retrieved.

BISNET has (as of April' 95) about 70 subscribers for online services and about 400 organisations use their off-line, conventional services.

The strong points of BISNET include a large FICCI subscriber base and FICCI's connections with international trade/business information centres including the Confederation of Asia Pacific Chamber of Commerce & Industry (CACCI), South Investment Trade & Technology Data Exchange Centre (SITTDEC), Trade Information Service Network of Economic & Special Commission to Asia (ESCAPTISNET), and GLOBALINK of Singapore.

# 2.7 Live News/Information Broadcast Service (PTI & UNI)

Both Press Trust of India (PTI) and United News of India (UNI) provide news feeds vide telex terminals and computer terminals using their own private data network. These networks are extensive in coverage as almost all important towns and cities are covered. The service is broadcast—that is no interactive querying is possible. However, it is very useful to newspaper, magazine and press personnel.

PTI Stockscan, which provides stock and share prices information, live from Bombay and Calcutta stock exchanges is very popular. Public access free terminals may be found in airports, hotels, stock exchanges, etc.

The subscription price for these services varies according to the following :

- (a) Whether basic or additional services are ordered.
- (b) Receiving media-telex, fax, or computer.
- (c) Number of subscribers of the newspaper which is ordering this service.
- (d) Whether graphic output is also desired with news feeds (in the case of UNI).

For example, in the case of UNI the charges are about Rs.10,000 per month for Financial News Service for non-financial newspapers having a subscription base of less than 50,000 subscribers.

PTI is relatively larger in operations and enjoys a number of foreign subscribers also. Newsfeed from PTI & UNI is useful to any organisation, which would collect, consolidate and re-distribute news in multiple media. These are not targeted towards the end-user or commoner.

# 2.8 Online Trade Inquiry Service (World Trade Center)

WTC, Bombay is a member of 180 strong Association of World Trade Centres. It is a member of World Trade Inquiries Service operated by the General Electric Information Services.

Members can post advertisements of the products/services which they want to sell or buy, along with a profile of the company. The user needs to become a member of WTC, to establish credibility in international sales. The user has to dial in to WTC (Bombay) computer using PSTN lines.

The information provided by each and every member is posted to appropriate bulletin boards, which in turn gets summarised in a large number of commerce/trade publications, like, the Journal of Commerce, USA. The user pays \$3 to look up the Offerer's profile and \$0.50 for detailed specifications of the product needed. Negotiations are made via e-mail or fax. Once a deal is struck, the buyer couriers a DD for the goods purchased. Placement of an advertisement (800 characters) on the computer network costs \$40 and it is retained for 15 days.

The advantages of WTC service are that, for a nominal fee, your request is distributed to a large audience; there is no need to travel; and enquiries pour in from unknown quarters, otherwise unreachable.

Though there were only six online users as of December' 94, there is bound to be a boom in a short time.

#### 2.9 RADAR-Homeopathy Database (Archibel SA, Belgium)

Sold through B Jain Publishers, New Delhi, this database contains Kents Repertory, Herring's 10 volumes, and Boericke's *Materia Medica* along with front-end retrieval software called RADAR exclusively developed for Homeopathy. The database comes in 35 floppies (1.44 MB), priced at Rs. 21,500 (1993).

Extensive search mechanisms—search by means of one to seven key words for symptom in the language of patient; symptoms classified as relative importance, compulsory, causative etc; expert system module; patient file; direct access to *Materia Medica* via 16,000 keywords, etc. are its features.

# 2.10 Hompath (Jawahar Shah Bombay)

Hompath is a database of all the seven repertories of Kent, Boger-Bolnninghanson, Boericke, Synthesis obesity, Asthma and Phatak. While searching for a drug showing specific symptoms, one can assign his own weightage of importance of the symptoms. Several symptoms can be combined and a few remedies chosen. Percentage of match is shown graphically to aid quicker/easier selection. The retrieval software helps in repertorisation, then see the rubrics, compare remedies, refer to Materia Medica, etc. Facilities, like calendar, calculator, inventory, accounting packages are available as a bonus. The package is priced at Rs.10,000.

#### 2.11 JURIX (SPECTRUM)

This is India's finest Legal Database covering, Civil Procedure Code, Transfer of Proprietary Act, Arbitration Act, Company Acts, Excise & Customs Act & Notifications, Direct Taxes (High Court & Supreme Court decisions, notifications and circulars, Tribunal cases), MRTP case laws, etc. Most of the data bases start from 1981 and are updated regularly.

Initial cost of all 12 databases up to March 1993, is Rs. 90,000 and a limited personal version is available at Rs. 10,000 (for LAN version, Rs. 5,000 are charged extra for three users). Updates are available at Rs 3,000 per database per year. The total size of the 12 databases is about 170 MB.

The above charges are for acquiring the database for use on site (at your premises). JURIX is also available for online retrieval directly from Spectrum and DART. JURIX will shortly be available on DataServe of Business India Infotech also.

The charges for using JURIX online vary according to connect time, number of searches performed and quantum of output. On an average, connect time charges are Rs. 3 per minute, each query costs Rs. 6, and you also pay Rs. 3 per citation and Rs. 12 per full text of item retrieved.

For the online version there is a one time installation charges of Rs. 3,000. Normally one buys, before hand, a certain number of specified units of service.

Chargeable units are explained as follows (Each unit costs Rs. 0.60) :

Connect time :	5 units per minute
Searches :	10 units per query
Citation :	5 units per citation
Context display :	No charge
Text output :	20 units per full text

The Legal database contains full text of the acts, judgements of various courts/tribunals/boards, circulars and notifications. Case laws are covered for eight years. Updates are made monthly.

Search software : The search software allows one to search the full text vianame of the Act, Section, Circular number, Chapter, Judge, Notification no., Rule, tariff item, Article, any text word, Clause, and keyword.

To the student of library/information science, engaged in learning information retrieval systems in detail, JURIX offers the best example of a commercial database.

The search & retrieval capabilities are given below.

#### 2.11.1 Search Capabilities

- Search on any word and phrase in a stream/character type field.
- Range search in numeric and date fields.
- Proximity search in stream type data (Proximity in terms of words, sentences, paragraphs).
- Regular expression search.
- Search based on user-definable thesaurus.
- User definable tolerance to punctuation, hyphenation, etc.
- User definable exclude-words or field values.
- Full boolean operator support.

- Search history through saved searches, which can be utilised as parts of further searches.
- Automatic indexing of frequently accessed phrased / regular expressions for faster access.
- Automatic query optimization through compound queries, short-circuiting, and intelligent clause.
- sequencing deferment of assertion of probable (but not certain) hits (akin to fuzzy logic).

#### 2.11.2 Retrieval Support Capabilities

- Built-in parser for natural language like queries. (User can also define a separate customized parser). Intuitive treatment of implicit boolean operator precedence.
- Built-in QBE support.
- User and usage accounting : connect time, searches, hits, fieldwise retrieval, printing, etc.
- Multiple level password based access for security control.
- Full feature text browser with scrolling, block marking, cut-and-paste manipulation, selective printing/saving, etc.
- Structured data viewing in tabular, scrollable fashion, with user-definable exception keystroke handling.
- User definable hot-keys for various standard functions.
- Keyboard stuffing for shorthand definitions, self-running behaviour, etc.
- Peeking' into other databases while keeping bookmarks in the screens currently being viewed.
- Simultaneous searching through multiple datable with summarised reporting of hits.

Background query processing while continuing other foreground operations.

The scope of JURIX is expected to include Labour Laws, Civil Procedures Code, Arbitration Act, Property Law and Consumer Protection Law, in the near future.

# 2.12 JUDIS (NIC)

Judgement Information System (JUDIS) is an on-line database of Case law information for judges, advocates, libraries, law students and the litigant public. This will be made available via PC kept with High Court or Supreme Court judges and linked to NIC computer in Delhi. As of April 1995, judges and law professionals have access to information online from NIC computer in Delhi. Soon it will be open to public, via 750 terminals kept in district headquarters throughout India, for a fee of Rs 20 per query. JUDIS is a part of COURTIS-Court Information System whereby all the High Courts will be linked together via NICNET. Information relating to cases to be taken-up for the day and pending cases can be known instantly.

### 2.13 Computer Trade Database (More Services)

This is a floppy based database of computer dealers, software developers, manufacturers and training institutions made available in dBASE compatible format. It is priced at Rs 625. Contents include name, address, city, phone no., fax no., contact person and logical fields for business activities. The database is updatable by the end user.

Similarly, databases of computer users in Bombay and Delhi are also available at a price of Rs. 1,250 each. 25,000 entries in each file occupy nearly 5 MB each. All these databases are useful to send greetings, product announcements, mass mailing, market survey, etc. More Services also publish in paper form, the CompuTrade Yellow Pages, Computer Directory. Software Directory, etc.

The industry has grown so fast that the Database Forum of India was started in February 1994. Based in Bangalore, it has 15 members. Its president is Mr Sanjay Padode of DART, Bombay. The membership fee is **Rs.** 1,000 for individual and Rs. 5,000 for corporations while for students it is Rs. 100.

#### 2.14 Other Databases

Besides the dozen and odd databases mentioned earlier, quite a few small organisations are silently producing databases for specialised areas.

(a) Indian Library Association, New Delhi has a directory of 10,000 libraries and supplies the same in a set of 10 floppies (10 MB).

(b) Bureau of Indian Standards, New Delhi has a database of organisations producing goods as per ISI standard. They also have details of more than 15,000 Indian standards on magnetic tape made searchable through INSDOC and NIC computers.

(c) *Electronics For You*, Delhi supplies a database of Electronic Component Suppliers (2,000) on a set of floppies along with search software in dBASE format.

(d) STQC, Madras has produced a database of electronic components giving corporate specifications, and approval details from BIS, Military Inspectorate, etc.

(e) Result, Delhi produces a fee-based mailing list for a number of advertising and market research companies.

(f) Datamatics, Bombay offers for one time use, a large database of eight lakh addresses (mailing list). It is the only firm in list business offering to pay back the postage incurred on all returned mail. Custom-made lists are also supplied.

(g) INSDOC, New Delhi is providing a Database of Holdings of all Serials in Indian Libraries. Directory of Translators in India, and few other library related databases are also available.

(h) National Informatics Centre, New Delhi allows medical searches to be made on Medlars database from local NIC offices for a nominal fee. NIC's Population database, Educational Resources database, District Information database, etc., are also searchable through GISTNIC centres in important cities.

(i) Department of Telecom through MTNL, New Delhi plans to provide CD-ROM database of telephone subscribers in New Delhi, numbering over nine lakhs. The price of the database will be Rs. 2,000 and it will be available by middle of 1995.

#### **3. CONCLUSION**

It may be seen that almost successful database producers have concentrated on the financial information services for the merchant bankers, investors, investment consultants and financial analysts. All of them have years of experience in collecting and disseminating the information in the chosen field in print form.

This holds good for BI Infotech, DART, Capital Market, CMIE, etc. All of them started with floppy-based services expanding to large volume databases and then to online services. Presently, except JURIX, and BISNET, online database service still means that periodical updates are available via modem download.

A large number of small entrepreneurs are entering the fray with highly specialized databases for niche markets. The next ten years are bound to witness a steady growth in this area.

#### **Database Producers in India**

- Business India Inf. Technology Ltd. Malini Chopra Network Mg First floor, B 3/86 Safdar Jung Enclave, New Delhi 110029 Ph: (011)6883225 (011)6883181 (011)6883223 Tlx: 031-72353 Fax: +91-11-6883226 aXcess e-mail and DataServe databases.
- Dataline And Research Technologies (I) Ltd. Unit A & B, Lawrence Mayo House, 2nd Floor 276, Dr DN Road, Fort BOMBAY-400001 Ph: (022) 2835499 (022) 2835830 (022) 2835833 Tlx:011-81130 DSJ IN Fax:(022)2047898, 2835504 Infotech corporate databases, JURIX Legal Database.
- 3. FICCI

Jayaseelan, Maj Federation House Tansen Marg New Delhi 110 001 Ph: (011)3319251 (011) 3315442 Tlx: 031-62521 Fax: (011)3320714, 3721504 BISNET—online network for Industry.

4. National Informatics Centre Seshagiri, N. Dr Director A Block, CGO Complex Lodi Road New Delhi 110 003 Ph: (011)362173 Fax: 011-362489 Grams: NICNET Hq Medlars, NICMAIL, JUDIS, Internet services, Vsat broadcasting

- Spectrum Business Support Ltd. 210, Shah and Nahar Estate, Dr Moses Road, Worli Bombay 400018 Ph: (022)4929445 JURIX Legal database developer Fax: (011)4930583
- 6. Capital Market Karthikeyan, R. Asst Mgr. C/O Ratan Manzil, Gr Floor, Near Charaghdin, 64 Wodehouse Road, Colaba, Bombay 400005 Ph: (022) 2180118 (022) 2181460 (022) 2041269 IDSS Corporate Database
- 7. Datamatics Direct Rakhshin Patel Div. Mgr. Eucharistic Congress Building No. III
  5 Convent Street, Bombay 400039 Ph: (022)2020478, (022)2020531 Tlx: 011-85374 Address list lender for direct marketing
- 8. Sesa Seat Information Systems Ltd. Srivatsa, K. Terr. Mgr.
  652, 3rd Block Koramangala, Bangalore 560034 Ph: (080)531131 Yellow Pages publishers; Database producer
- 9. Jain Publisher
  1921, Street 10, Chunnamandi
  Pahar Gunj
  New Delhi 110055
  Ph. (011)7770430, (011)7770572
  Fax: 011-7510471
  Hompath & RADAR Homeopathy Database supplier

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- Business India Database Pvt. Limited Venugopal, V Syndicate Residency, D49, 3 Dr Thomas Rd, Thyagaraja Nagar Madras 600017 Business India Group databases.
- 11. MVIRDC World Trade Center

Kuruvilla, AO DM Info Ser Centre 1, 31st Floor, World Trade Centre Cuffe Parade, Bombay 400005 Ph: (022)2184434 Tlx: 011-86846 WTCB IN Fax: (022)2188175 Third party vendor for databases, like VANS, IMPEX, etc.

- 12. Credit Rating Info Serve. of India Ltd. Bombay
  Ph: (022)4939054, 4939055
  Fax: (022)4926243 Fax: 022-4939441
  Electronic database on the Indian economy
- 13. United News Of India Ganapathy V DGM/DC Edi
  9, Rafi Marg New Delhi 110001 Ph: (011)3711032/3715898/2250026 (R) Fax: 3716211 Newsfeed via telex lines
- Reuters Ltd
   Mr Chandar
   Kautilya Marg, Chanakyapuri

New Delhi 110021 Ph: (011)3012024/3014654/3013298 Online interactive info services on stock quotes and commodity prices using dedicated terminals

- 15. Press Trust of India (PTI)
  PTI Building
  1st Floor, 4, Sansad Marg
  New Delhi 110001
  Newsfeed via telex lines, Stockscan
- 16. Jawahar Shah, Dr
  10/11, Harish kumi, 46, Tagore Road
  Santa Cruz West
  Bombay 400054
  Hompath database producer
- 17. Data Base Forum of India Sanjay Padode President C/o DART Bangalore Database voluntary organisation
- 18. More Services
  B 12, Punjabi Bagh
  Bhopal 462023
  Ph: 67000
  Floppy-based databases : Computer users database, Computrade database.
- 19. Centre for Monitoring Indian Economy M79, M Block Market, Greater Kailash, Part 2, New Delhi 110048 Ph: (011)6216746 Fax: 011 6216813 Database on economic aspects of India