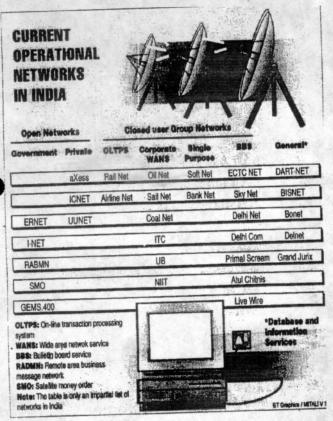
Paper: Economic Times (Delhi) _ Date: 04/02/96

Log in to the Net

Starting this week, NETeffect will seek to demystify the much-talked-about electronic phenomenon called the Internet, along with data security, cyberspace and more





NETeffect s chandrashekar

PERHAPS Internet is best discussed initially with a lower case i, that is, internet. For that is what it is, internetworking.

The Internet has also grown into a community, free of heirarchy. It was largely responsible for the growth of research and development network in the US and is a reason for the competitive edge that country has acquired over the years.

Most public networks offer access to the Internet. So what has made a network like Internet so popular? Why does everyone seem to talk about 'hooking on to the Net' when discussing the information highway, another one of those information technology terms which has got clouded be-

yond recognition by hype?

The Internet is one of the main stopovers on the way to the information superhighway. It is more than a wide area network. It is awesome by the sheer number of people it connects and attractive because it is flat — that is, it has little or no heirarchy.

There are of course software mechanisms, called filters, which either prevent some users from visiting a database 'site' on the 'Web' or even bar a whole network from the rest.

The network's origin lies in the insecure Cold War period at the US Department of Defence, when it was designed to survive an anticipated nuclear war. Then, a bunch

of enthusiastic universities adopted the network, backed by the National Science Foundation (NSF).

With a mandate to make high performance network computing available to researchers across the US, the NSF funded the Internet for universities and recognised research organisations. But, that fund is now shrinking and, in fact, President Bill Clinton had recently sought to develop a National Information Infrastructure, which will make the Internet commercially viable.

Today, there are other pay-networks like CompuServe, America Online and Prodigy which are fast gaining on the Internet. According to a recent survey, their bulletin board and newsgroup services are

more popular than ones available on Internet. But, unlike these networks, Internet was not created to be what it is today. Many individual networks just hooked on to form what is today — a mosaic of thousands of small networks with some 80 million users across the globe.

But there are Indian networks, both closed users group and open. They include the Education & Research Network (ERNET) from the Department of Electronics, the National Informatics Centre Network (NICNET), Remote Area Business Message Network (RABMN), BankNet (of the RBI), Dataline, Research Technologies Network (DART) and Jurix. Most are gov-

ernment-run but increasingly private networks too are entering the public information networks business, DART being one of the earliest.

The networks offer services such as stockmarket news, remote database access, bulk file transfers, electronic mail, international mail, interbank message transactions and fund transfer. All of them ride on the department of telecommunication's backbone such as a leased line.

Unfortunately, most Indian networks cannot connect to each other. This in itself signifies a poor structure for the information highway. There is an inherent danger of that 'global village' remaining a dream for India if it does not give a serious thought to its own networks first.

It must be mentioned here that though media has been hailing the

arrival of Internet in India, it has actually been around since ER-NET began during the seventh plan between 1985-90.

A public domain network like

The network's origin lies in the insecure Cold War period at the US Department of Defence

the Internet represents the confluence of computers and telecommunications. Already, the electronics needed for equipment in both the fields are largely homogenous. While telecommunication networks need a strong software base and use computers for systems control, computers need the networks to talk to each other. So, networking is essential for modern computing, which in turn is must for modern communications.

Networks basically help one to share data with another, tap the processing power of a remote computer, and allow many computers (called terminals) to access the data processing power of a single main computer (called the server).

The topography of a computer is now no more limited to your desktop and has become wide area computing (WAC). WAC can be as strategic as a closed user group defence network. Or, it can be a low-cost freeware/shareware general public domain network, such as CompuServe, America Online and, of course, Internet.

Next week, we will visit the National Science Foundation and the US Department of Defence, to the birth of the famous TCP-IP protocol, talk about the role of the good old telephone network, review Howard Rheingold's Virtual Community and see 'What's Cool' and 'What's New' on the Internet. Log on.

Paper : Business Line (Delhi)

Date: 06/02/96 Page: 7

NIC to throw open tele-data service

Somasekhar Mulugu HYDERABAD, Feb. 5

THE National Informatics Centre (NIC) is firming up plans to commercialise its large and varied 'dial-for-data' based storehouse of information on India put together under GISTNIC.

GISTNIC - general information service terminal mational informatics centre "is at present a comprehensive information bank predominantly used within the Government sector. The decision to throw open the databases to the private sector stem from the Centre's approval to NIC last September to commercialise its services and generate more revenue.

Accordingly, NIC's Hyderabad centre which co-ordinates and implements the GISTNIC project has proposed a concrete plan targeting banks, commercial firms, newspapers and large and small business enterprises to offer this massive data collected over the last six years.

GISTNIC has so far been collecting and updating data to help Governments at the Centre and State in planning and implementation of its programmes and projects. In addition, it has set-up booths at select places for public to access information, according to Mr. C. S. R. Prabhu, Technical Director, NIC.

He told Business Line that the major databases that would be offered to the private sector include Monitor of India Economy, Census 1991, and Monthly update of International Monetary Fund (IMF), reviews. In addition, specialised databases on rural technologies and traditional sciences can also be provided.

GISTNIC is available through the all-India satellite-based computer communication network - NICNET which is linked with the massive computers located in the regional centres here and in Pune and Bhubaneshwar. Mr. Prabhu said after initial problems of stabilisation of the systems, GISTNIC has now emerged as a truly comprehensive information highway in the country, operational and ready for access in the public domain also.

To promote utilisation of GISTNIC, efforts have been made to install booths in locations

such as secretariats, libraries, airports, hotels and other popular locales for easily accessibility to the common man.

Innovations such as adding audio-visual interface, creating coin-operated booths and manned booths for free interaction with the public in local languages are underway. In 1995, a mobile GISTNIC van was devised to take the information to the people and was launched by the Prime Minister, Mr. P. V. Narasimha Rao, in his Nandyal constituency, he said.

By signing a memorandum of understanding with the Centre for Monitoring of Indian Economy (CMIE), "We have acquired blanker rights on their data, including the monthly review of the Indian economy. All this data would be available to subscribers on a monthly basis", he said.

The service offers time series information on essential sectors such as agriculture, industry, health, education, both at the State and Centre. In addition, balance sheets of more than 2,500 companies are given for analysis.

The most unique and comprehensive database with GISTNIC is the Census Report of

1991. Both the primary census abstract with demographic details, the village level abstract giving all the amenities and necessary information of the six lakh villages have been put together. The entire data has been divided into 100 parameters for easy reading.

Another significant and frequently used database is the one supplied by the IMF covering details of international financial statistics, direction of trade, balance of payments and Government finances for all the member-countries spanning over 400 parameters on a regular basis, he said.

a regular basis, he said.

"Recently we have added two specialised features covering about 1,000 rural technologies. Divided into 30 subjects, these technologies collected from the major national scientific bodies and voluntary groups are aimed at giving rural entrepreneurs opportunities to exploit. Technologies feasible below Rs. 50,000 for implementation are given."

The databank containing traditional sciences has brief extracts from ancient books, seminar proceedings, field surveys and cover areas such as medicinal herbs, handicrafts, metallurgy and other traditional Indian expertise, Mr. Prabhu added.

Paper: Business Line (Delhi)

Date: 07/02/96

DoT and the Internet disservice

HE decision by the Department of Telecom (DoT) to allow private operators to provide Internet services is indeed welcome. Thus far — that is, from August 15. 1995 — the only commercial service provider in the country has been the Videsh Sanchar Nigam Limited (VSNL). The latest DoT decision has come as a result of pressure from several quarters to end the monopoly of VSNL. It is, however, unfortunate that DoT should consider even this service as an avenue for making money by collecting licence fees.

Going by reports, the private Internet service is to come under the garb of a 'value-added service' from DoT which will require the private operators to pay a fee. This cost to the operator will, of course, be reflected in higher charges to end-users. Given the tremendous potential that Internet holds and the nascent state of the Indian IT industry, it is important that all effort be made to keep costs down.

Really galling is the fact that even without levying licence fees, DoT and VSNL will be making money from both the service providers and the end-users. The former will not only have to spend heavily on setting up the hardware but also pay VSNL's monopoly charges for international connectivity. And, given the nature of Internet, it is bound to generate a lot of demand for international traffic. If VSNL is also going to continue as local service provider, the fairness with which it will decide the charges for its competitors will be open to question.

DoT may well argue that VSNL will be asked to spin off a subsidiary for local Internet service and that 'baby-VSNL' will have to pay 'Ma-VSNL' the same charges as its competitors. This argument will not hold water as in a situation where there are, say, six operators. 'Ma-VSNL' can more than make up for the 'extra' amount being payed by 'baby-VSNL' from that being coughed up by the other five private operators.

The end-users will be paying not only the service provider for the number of hours for which the service is used but also DoT for the privilege of dialling up the private operator using the department's telephone lines. And, given the quality and the quantity of the department's lines, the consumer can expect

DoT has finally announced that private operators will be allowed to provide Internet services. They will, however, be required to pay a licence fee. Arun Natarajan analyses the ramifications of this move and argues for doing away with the licence fee.

as much 'delight' from the service as he now derives while using the VSNL service.

VSNL certainly deserves congratulations for bringing Internet to India. The fact that private operators are interested in providing the service is to a certain extent due to the interest that VSNL has generated. The main complaints from customers about VSNL's service has been the low availability and the poor quality of DoT lines linking them with VSNL's gateways.

Many users are frustrated by the fact that they can rarely get through to VSNL's host computer when they want to access the service, since the very few lines allotted for the service are always busy. It requires repeated 'trys' — sometimes up to half-an-hour — to get connected to VSNL. And, even after getting the link, getting cut off the network due to the poor quality of DoT lines is more the rule than the exception. The irritation and the frustration caused while downloading a large file or browsing the World Wide Web can well be imagined.

The other important problem is the lack of availability of high band-width for accessing certain Internet features though, of course, this problem is sure to be addressed in course of time by the more sophisticated networks to be installed by DoT and the private basic telecom operators (if and when they begin operations).

For the overseas part of the connections, VSNL — which seems set to enjoy its monopoly status for the next few years at least — should be able to meet the demand through its existing and ongoing projects. In fact, VSNL would be better off concentrating on its stated mission of providing high-quality international connectivity rather than trying to compete with the private operators for the local services. The organisation could serve the coun-

try better by focussing on its core compete

DoT is said to be finalising the licence fee other details with representatives from computer industry. According to some rep the first companies to take the jump woul the existing licencees for electronic-mail vices. These companies have been small under high licence fees and archaic regions which prevent them from interconding their networks. Easier access to Interwould mean that the users of these E-mail vices will be able to send and receive main any other network, thus giving a fillip to original service as well.

The private service providers will also be from the demand from Indian companie setting up Webpages on the World Wide Some companies have already put up pages but have had to pay heavily to host pages on servers (high-end computers) ir US. With the increasing use of the Web tool for advertising and commerce, the mand for hosting Webpages locally is bour grow and work to the advantage of the Internet service providers.

The liberalised scene in which several ators may be operating in the same city sents several advantages. It would encou competition among the operators for cus ers and lead to attractive pricing for the vice.

In the near-term, the various operators to rely on DoT connections for letting user up to network. The fact that there are operators would reduce the pressure on lines, as different operators can obtain cortions from various local exchanges. The ators need to locate their machines in the falling under less-crowded exchanges. If sible, they could locate themselves in the served by digital exchanges.

Paper : Business Standard (Delhi)

Date: 13/02/96 Page: 4

Electronic customs operations by January '98

Press Trust of India MUMBAI

The commerce ministry has set a target to have submission and processing of customs declarations throughout the country made electronically on the "Indian Customs EDI System" (ICES) by January, 1998.

by January, 1998.

ICES import declaration procesing module has been in operation in Delhi in Fehruary, 1995 and the export document processing module, now undergoing trial runs, would be operational in the next three months, deputy director general of National Informatics Centre (NIC) K K Bajaj said yesterday.

said yesterday.

Speaking at a workshop on electronic data interchange (EDI), organised by the Federation of Indian Export Organisations (FIEO) here, Bajaj said both the import and export modu-les would be introduced in Mum-bai, Bangalore and Madras air-ports in July and in the rest of the country and at seaports in a phased manner thereafter.

Currently, 54 custom house agents in Delhi are using the remote EDI system for preparing and submitting their import declaration documents from their premises to computer systems installed at the customs, he said.

Bajaj said over 95 per cent of the shipping bills are submitted and processed electronically and the remaining 5 per cent inclu-ding project imports would be similarly processed within a

Date: 13/02/96

Paper : Observer (Delhi)

Trial runs for electronic banking begin

Press Trust of India

Mumba

THE, National Informatics Centre has undertaken a new project at Delhi and Mumbai, involving five banks initially, for electronic transmission of advices relating to the issue of demand drafts and status of inter-city cheque clearances.

Trial runs have been held for the Electronical Data Interchange (EDI) and it will take at least three months to make the bank EDI system operational, NIC deputy director-general K K Bajaj said at a workshop on EDI here on Monday.

The IBA awarded the project to NIC in July 1995, and the Punjab National Bank, the Bank of India, the State Bank, the Union Bank of India and the Corporation Bank were chosen to implement it.

IBA, Mr Bajaj said, has decided to align all concerned documents — demand draft advice, caution advice in case of loss, cancellation advice and inter-city credit advice relating to outstation cheques — keeping in line with international standards and guidelines for electronic interchange of structured data.

He said the immediate problem was that none of the five banks was capable for EDI and the moment one branch each in Delhi and Mumbai gets ready, the project would be implemented. Once the pilot project is fully operational, the scope of the IBA's EDI project would be enlarged to cover other areas, he said. □

NATIONAL INFORMATICS CENTRE

Paper : Business Standard (Delhi)

NEWSNIC SERVICE

Date: 20/02/96 Page: 5

Software tech park

Press Trust of India

A Rs 3 crore software technology park planned jointly by the government-owned industries corporation (Pipdic) and the National Informatics Centre will go on stream in four months, Union territory's Chief Minister V Vaithilingam said here yesterday.

Paper : Business Line (Delhi)

Date: 21/02/96

New BIS norms set for network security

Our Staff Correspondent MADRAS, Feb. 20

THE Bureau of Indian Standards (BIS) has come out with new standards for managing security in information systems. This is said to be the first such effort at standardisation in this area in the country. The first two manuals - 'Guide for protection of information resources' and 'Code of practice for information security management' - were released by Mr. Ramachandra Rao, Deputy Director General of BIS, at INFOSEC '96, the annual conference on information security, organised by the Computer Society of India (CSI).

Dr. K. Subramanian of the National Informatics Centre (NIC) who headed the committee which prepared the documents, said efforts were on to release them in electronic form as well. "The possibility of making these standards available on demand over networks like the NICNET or the INET is under consideration," he said.

He said the committee had looked into various aspects of information security such as network security, systems and applications and environmental security. Other aspects such as education and human resources development, risk evaluation and cryptography have also been covered. The legal aspects of information security are being looked into by a special committee.

Delivering the keynote address at the conference, Dr. S. Ramani, Director of the National Centre for Software Technology (NCST), said the overall knowledge on information security in the country was poor. Mentioning occasions where security of computer networks had been breached, he said professionals rarely shared such experiences with each other.

Dr. M. L. Goyal. President, CSI, said the increased use of database technology has created new security problems. "Data security is a crucial issue in an IT environment. In fact, data is the most sensitive part of any system and its loss or compromise can have disastrous consequences," he said.

Most of the usual modes of communication including telephone, fax and radio are unprotected. Though E-mail provides some degree of encryption, the level of security is rudimentary. Even digitalisation techniques used in satellite systems are not commensurate with the value of the information carried by them, he said

"With the likely introduction of information superhighways in India soon, the incidence of eavesdropping, electronic sabotage and data manipulation is bound to increase. A single incident of eavesdropping may cause losses running to crores of rupees. Thus security of data is bound to emerge as the most complex and challenging area for corporates and technocrats alike," he added.

Paper: Pioneer (Delhi)

Date: 23/02/96

Discussion on electronic voting

ELECTRONIC VOTING will be among the many subjects to be discussed at an international conference on computer security scheduled here in March. Of concern to defence and intelligence, electronic security has, of late, become vital to such civilian

applications as banking and cellular phones. With the coming of the global information superhighway, scientists are concerned with securing the traffic that is riding on it, Y K Sharma of the National Informatics Centre, said on Thursday. Staff Reporter

Paper: Hindustan Times (Delhi)

Date: 26/02/96 Page: 6

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NEWSNIC SERVICE

●aper : Business Line (Delhi)

Date: 28/02/96 Page: S 1

NCTI Executive Director

Press Trust of India NEW DELHI, Feb. 27

R. Anil Singh has been appointed as the Executive Director of National Centre for Trade Information (NCTI), a joint venture of India Trade Promotion Organisation (ITPO) and National Informatics Centre (NIC).

Prior to this, Mr. Singh was Director with Apparel Export Promotion Council (AEPC) for more than a decade, according to a NCTI press

NATIONAL INFORMATICS CENTRE

NEWSNIC SERVICE

●aper : Times of India (Delhi)

Date: 28/02/96

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