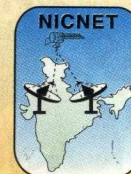


Informatics



Video Conferencing at NIC

THIS ISSUE BRINGS TO YOU

AROUND THE NIC WORLD Page - 2

The news section

COVER STORY Page - 4

Video Conferencing at NIC

PRODUCTS/SERVICES Page - 6

How they are being utilized

PROJECTS Page - 7

A glimpse of some of NIC's projects

IN THE LIMELIGHT Page - 8

A profile of NIC Guna District Centre

• • • and all our regular columns.

Internet Edition : <http://www.nic.in/Informatics>

EDITORIAL BOARD

ADVISORY COMMITTEE

Dr. N Vijayaditya

Dr. B K Gairola

Dr. K K Bajaj

Dr. Y K Sharma

Shri M Moni

Mrs Neeta Verma

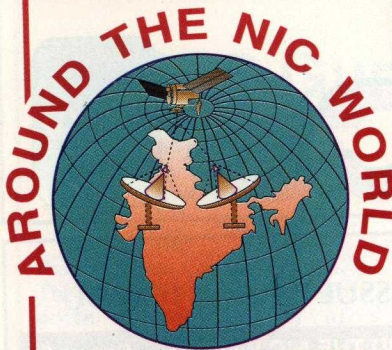
(CO-ORDINATOR & CONVENOR)

EDITOR

Nidhi Verma

ART & DESIGN

Subhash Kapoor



TRAINING PROGRAMMES FOR NIC OFFICIALS

From our Local Correspondent

New Delhi: The National Informatics Centre is, for the first time organizing a series of Training Programmes, to familiarize NIC professionals with MicroSoft (MS) Office Software and Lotus Smart Suite Software, at the NIC Headquarters, New Delhi.

The Programme on MS Office will cover MS Word; MS Access; MS Excel; MS Powerpoint and MS Outlook. The duration of the Programme will be five days and the scheduled dates are **April 21-25; May 5-9; June 2-6.**

The Programme on Lotus Smart Suite will cover Lotus Wordpro; Lotus Approach; Lotus 1-2-3 release V; Lotus Organizer; Lotus Freelance. The duration of this Programme will also be five days and the schedule is, **April 28-May 2; May 26-30; June 9-13.** -L

EDUCATION HOMEPAGE

From our Local Correspondent

New Delhi: The Homepage for Department of Education on NICNET was inaugurated by the Minister of Human Resource Development, Mr S R Bommai, on March 4, 1997.

The Page can be either accessed from NIC's Homepage (URL: <http://www.nic.in>) or directly through the following address:
<http://www.nic.in/education>

The Page provides information regarding the various Sectors of Education such as School, Higher, Technical, Management, Adult & Vocational Education and Book & Language Promotion. Besides this, other details of the Department such as Set-up & People, Policy Framework, Schemes etc are also given in the Page. -L

DISTRICT COURT COMPUTERIZATION & NETWORKING PROGRAMME INAUGURATED

From our Local Correspondent

New Delhi: The District Court Computerization and Networking Programme, being implemented by the National Informatics Centre in all the 430 District Courts in the Country, was inaugurated by the then Chief Justice of India, Justice A M Ahmadi on March 4, 1997.

The function held at Tis Hazari Court was presided over by the Chief Justice of India Designate, Justice J S Verma.

After successfully computerizing the Supreme Court and all 18 High Courts, NIC has taken up the District Court Computerization & Networking Programme. This will enable all 430 District Courts in the Country to use Information

Technology Tools in their day-to-day work. Under this Programme, every District Judge and officials of equivalent rank will be provided with a computer terminal and printer in the court room for their daily use. This will help the District Courts in streamlining the judicial administration by computer assisted monitoring of case filing; keeping track of movement of case files in the court, providing computer based querying facilities to litigant/advocate. Once all District Courts, 18 High Courts and the Supreme Court of India are interconnected through NICNET the District Judges will be able to access National and International Legal

Databases and avail Internet and E-mail facilities.

Litigants and advocates will get certified copies of orders or judgements instantaneously as they will have been stored in the Computer System and it can generate several copies in a short time. It will help the Judicial Administration in reducing the pendency by automatic bunching of cases for a common judgement. The same has been achieved in the Apex Court and several High Courts. Introduction of Information Technology Tools will bring a better work culture in the District Courts for benefiting the litigants especially from rural areas. -L

COMPUTERIZATION OF PUNJAB ASSEMBLY ELECTIONS

From our Punjab Correspondent

Punjab: The NIC State Unit, Punjab played an important role in computerization of the election process as well as timely flow & dissemination of correct information on leading trends and final position in the counting process during the recently held Punjab Assembly Elections.

Detailed information about candidates in fray; VIP status; counting centres; eligible electoral etc, for all the 117 constituencies was collected and fed into the NIC computer systems by NIC Officials.

The State Election Office was provided with necessary hardware infrastructure and technical support by NIC. The Election Office was networked with all NIC Offices in the State. E-mail connectivity was provided in order to enhance communication capabilities of the Election Office.

NIC District Centres in Punjab provided support to the Returning Officers by computerizing a major portion of their work such as details of candidates; data

regarding polling stations; posting of polling personnel etc.

During the counting process the NIC District Officers worked hard to provide round-by-round data emanating from the counting centres through NICNET, from where the data was immediately downloaded at Jalandhar Doordarshan Kendra and State Election Office, Chandigarh, for onward transmission to Doordarshan and dissemination to the Press. -L

NIC STALL AT INFOCOM' 97

From our Mumbai Correspondent

Mumbai: The National Informatics Centre had put up a stall at INFOCOM' 97 held during February 12-15, 1997 at the World Trade Centre at Mumbai. NIC's services for Video Conferencing were the area of focus at the Exhibition.

During the Exhibition the equipment in the stall was used to connect several sites nation-wide and the members of the public and business visitors were given a hands on opportunity to experience the

benefit of Video Conferencing. Demonstration of Video Conferencing capabilities for holding conferences with sites abroad were also given with live conferences by connecting London and Paris from the stall. -L



NIC Stall at INFOCOM'97

JUDGEMENT INFORMATION SYSTEM ON CD RELEASED

From our Local Correspondent

New Delhi: The Judgement Information System on Compact Disk (JUDIS CD-ROM) published by the National Informatics Centre was released on February 25, 1997, by the then Chief Justice of India Justice A M Ahmadi.

The JUDIS CD-ROM contains all reportable cases of Supreme Court of India from 1950 onwards. The entire Supreme Court's 30,000 decided and reportable cases are encapsulated in one CD-ROM. Apart from the complete text of the judgement for each case, the CD contains, Citation; Headnote; Law Point involved, among other items. The CD is primarily designed to support young Advocates and Judges of Lower Courts who do not have access to a comprehensive caselaw library.

There are two versions of

JUDIS CD-ROM ie Unix Version and Windows Version. The Unix version of CD-ROM serves the interests of Institutions where many people work on the server and the Windows Version is meant for individual Users. The cost of JUDIS CD-ROM is kept sufficiently low on a subscription basis to make it affordable for upcoming Advocates. To begin with it would be updated half-yearly. All Judges of High Courts and District Courts can easily access JUDIS CD-ROM as all 18 High Courts in the Country are already established with NIC computer cells. The combination of the experience of a Judge or a Lawyer and the User-friendly JUDIS CD-ROM will help in enhancing the proficiency of legal research. It is an enhancement to the already existing on-line legal data-bases COURTNIC and JUDIS of NIC. ☞

ORIENTATION PROGRAMME

From our Rajasthan Correspondent

Baran: The National Informatics Centre, Baran District Unit had recently organized a Computer Orientation Programme for the District Officers with an objective to make Information Technology an essential component for smooth functioning of all District Officials work.

In the Programme NIC Officials explained the fundamentals of computer and how computerization can help in increasing efficiency in their day-to-day work.

Various Software Packages such as Payroll; Staff Management System; Public Grievances System; Collectors Information System Terminal (CIST); Treasury System etc, were demonstrated. This was followed by a demonstration on NICNET services.

The District Collector appreciated NIC activities in the field of computerization in the District. He also instructed to start a weekly training programme for the officers on use of computers in various fields of their job and also use of NICNET services in speeding up the automation. ☞

UNION BUDGET 97-98 ON INTERNET AND NICNET

From our Local Correspondent

New Delhi: The National Informatics Centre had placed the Union Budget 97-98 and Economic Survey'97 on the Internet through its World Wide Web server to be accessed by people all over the World. The same was also made available through NICNET for the benefit of the Government Officers and others in remote districts of India.

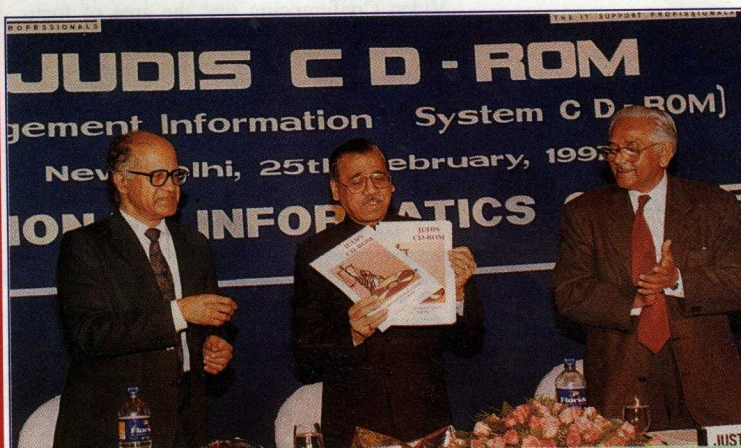
The Budget documents were released on Internet soon after the speech of the Finance Minister. The Budget documents released were Budget Highlights; Budget Speech; Budget at a Glance; Annual Financial Statement; Memorandum explaining the provisions in the finance bill. Subsequently, during the same day Customs & Excise Notifications was also released. All this was done by NIC Officials in the security zone in North Block. Similarly completed document of Economic Survey was converted into HTML format and placed on Internet.

The Budget was put on three servers in NIC, Headquarters and was mirrored on to Karnataka and Tamil Nadu servers also. The different Units of NIC worked in close harmony to successfully put approximately 600 pages of the aforementioned data of the Budget Document on Internet. The Budget 97-98 page can be accessed through the following URL:

<http://indiabudget.nic.in/>
<http://www.nic.in/indiabudget>
<http://www.nic.in/finmin>

Besides placing these documents on Internet for world wide access the same was also put on NICNET. The Economic Survey was put on NICNET after it was tabled in the Parliament. The Budget Highlight; Speech Part A&B and Budget at a Glance were put on NICNET after the speech of the Finance Minister. This was captured by all NIC's State Informatics Officers and handed over to Chief Secretary and Senior Officers of the State.

The Customs and Excise Notifications were also put on NICNET and mailed to Collectors and NIC's District Information Officers. ☞



Chief Justice of India, Justice AM Ahmadi releasing the JUDIS CD-ROM

WORKSHOP ON REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM

From our Punjab Correspondent

Jalandhar: A one-day Workshop on Remote Sensing and Geographic Information System (GIS) techniques for Integrated Rural Development was organized jointly by the National Informatics Centre, Punjab State Unit, Chandigarh and Punjab Remote Sensing Centre, Ludhiana on March 17, 1997 at Circuit House

Jalandhar, for the Districts of Jalandhar, Gurdaspur and Kapurthala.

The main objective of the Workshop was to introduce the participants with the concept of Remote Sensing and GIS.

Demonstration was given on how GIS can help in decentralized planning and decision making. Live

demonstration of GISNIC Software (Windows Version) was also given.

Senior District Officers of various departments such as Agriculture; Animal Husbandry; Forest; Horticulture; Irrigation; Water Supply; Soil Conservation; Planning; Small Scale/Village Industry etc attended the Workshop. ☞

VIDEO CONFERENCING at NIC

On December 4, 1996, Doctor James Martin gave a lecture on "Cybercrop" from London. The lecture was organized by Manufacturer's Association for Information Technology (MAIT) and was attended by Chief Executives of numerous Indian Industries, sitting in Hotel Maurya, Delhi. The session lasted for three hours and required no travelling or any other logistics arrangements. The number of people who attended the lecture were any day more than those who could afford to attend it otherwise. And all this was made possible through the amazing technology of Video Conferencing. The System for conducting the Video Conference was provided by NIC.

By presenting a social presence, Video Conferencing most closely resembles face-to-face meetings. Not only can people hear what is being said but can also see each other.

Organizations are making use of this technology for a number of purposes- a product announcement; press conference; shareholders meetings; educational programmes etc. Some of the areas in which Video Conferencing is currently being used are Distance Education and Training; Business Conferences and Presentations; Remote Problem Solving; Tele-medicine; Marketing and Project Monitoring.

NIC- VIDEO CONFERENCING SERVICES

The National Informatics Centre is providing the Video Conferencing Service through the high speed satellite network-NICNET,

National Information Highway. NIC is providing high quality Video Conferencing facility free of cost to the Central Government and State Government Officials.

NIC has the complete infrastructure for providing Video Conferencing services for Group Video Conferencing; Desktop Video Conferencing and Multi-point Conferencing.

At present NIC centres at Delhi, Calcutta, Bangalore, Pune and Ahmedabad are connected with the studio based Group Video Conferencing Systems. NIC is also providing Desktop Video Conferencing services from another eight major cities- Patna, Jaipur, Hyderabad, Mumbai, Bhopal, Chennai, Bhuvneshwar and Chandigarh in addition to Delhi. It is also possible to do international Video Conferencing from the New Delhi studio.

NIC also offers a complete solution for

setting up Video Conferencing studios, right from planning of network; system engineering to making it work on your desktop.

WORKSHOPS AND SEMINARS

With a view of acquainting the general public with the benefits of the Video Conferencing technology, NIC had organized a couple of Workshops.

On the World Science Day a Workshop on Video Conferencing was jointly organized by NIC and Bihar Institute of Technology at the Planetarium Complex in Patna. It was attended by over 400 participants which included Officials of the Bihar State Government and Business People.

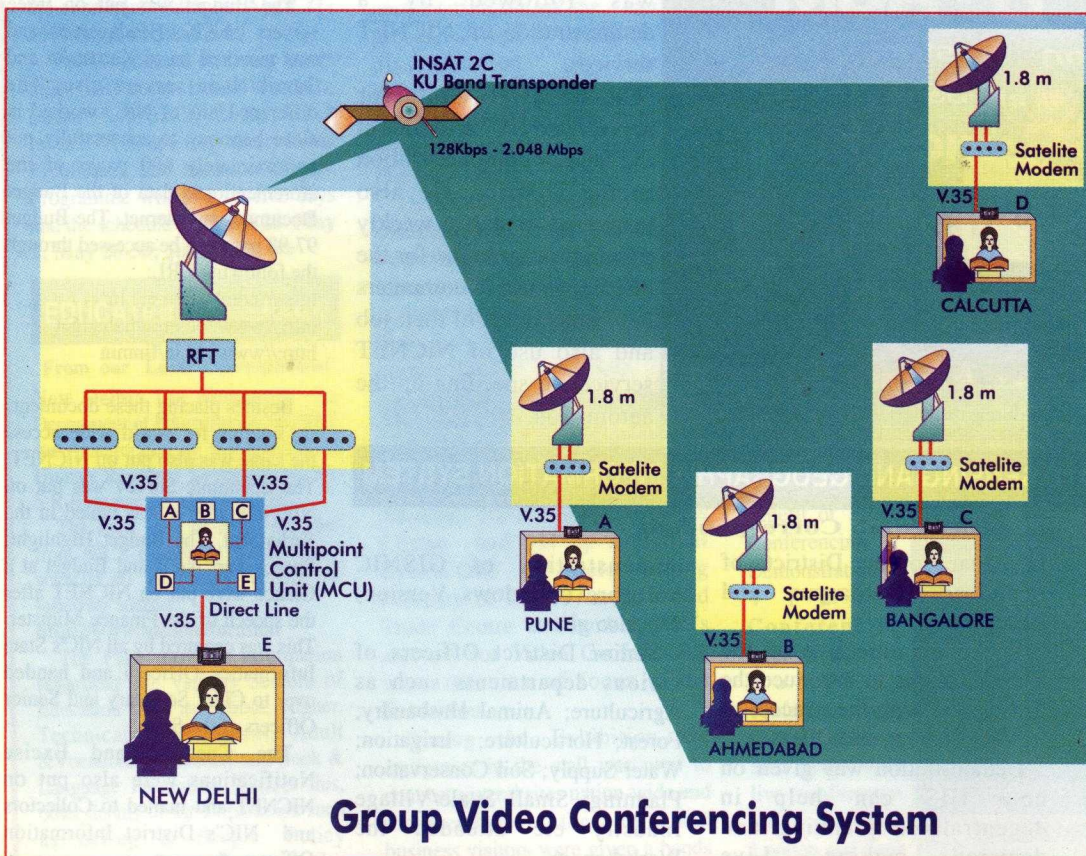
NIC had also put up a stall at INFOCOM'97 held at World Trade Centre at Mumbai where Video Conferencing was the area of focus. At both the places the participants were given hands on experience of the powerful media of Video Conferencing.

Demonstrations of Video Conferencing facilities of NIC are being conducted for all the Senior Officers of the Government of India including IAS Officers during the Training Programmes which are conducted at NIC Headquarters.

GROUP VIDEO CONFERENCING

NIC's Group Video Conferencing Systems can operate on transmission speed from 128 Kbps upto 1920 Kbps using satellite network and it can provide near television quality resolution at higher speeds.

These Systems allow atleast six to seven people to sit in each studio and are equipped with dual monitors; cameras for sharing documents; 35 mm slide attachment; facility to add audio



Group Video Conferencing System

only sites and VCR support to record conferences. All the functions of Video Conferencing System can be controlled with the help of a touch screen controller including remote control of cameras; volume adjustment etc.

NIC's DTVC is working across LANs located in different cities, over NICNET-info-highway. These services are also operational on ISDN lines, supporting data rate of 128 Kbps. Desktop Conferencing Systems can run on any

collaborative computing.

MULTI-POINT VIDEO CONFERENCING

The Multi-point Conferencing Unit (MCU) allows three or more Group Video Conferencing sites to participate in the same discussion. This facility is available at NIC Headquarters, New Delhi.

Presently multi-point video conferencing is available for Group Video Conferencing Systems only. However MCU standards are coming up on LAN/ISDN network and it will soon be available on Desktop Video Conferencing Systems.

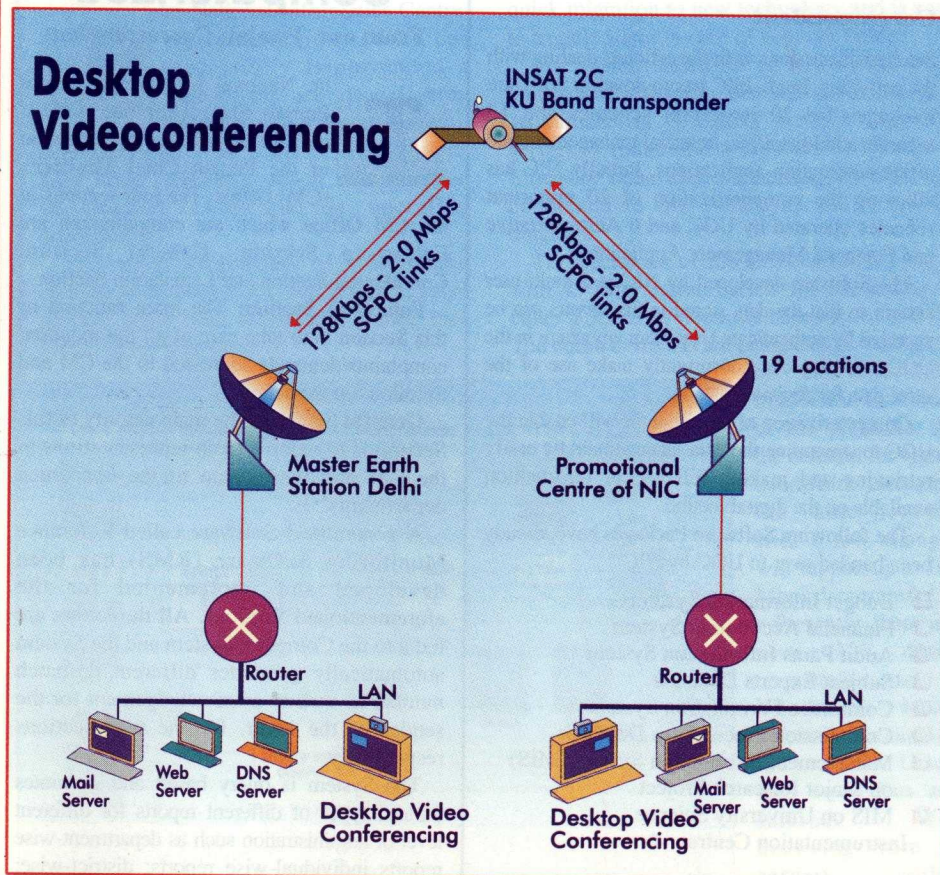
NEAR FUTURE ROAD MAP

NIC is in the process of setting up Video Conferencing facility from major Ministries/ Departments of Central Government and will be connecting them to the Chief Minister's Offices in different States. NIC plans to create studios for Video Conferencing on Internet/Intranet using MBONE technology which will be very useful in the field of distance education. It also intends to provide Mobile Video Conferencing System; Video and Audio Services over NICNET.

The Video Conferencing System will help in lowering the cost of customers for dealing with urgent work at distant places, as well as save time.

For any further information please contact :

Multimedia Engineering & Facilities Division,
National Informatics Centre,
7th floor, A-Block, CGO Complex, Lodi Road,
New Delhi- 110003
Ph: 91-11-4364821,
Fax: 4361475, 4362628
Voice mail: 4361075,
E-mail: mmslab@alpha.nic.in
URL: <http://www.nic.in/vidcon>



DESKTOP VIDEO CONFERENCING

Desktop Video Conferencing Systems are primarily used for one-to-one communication and the systems used are very portable and PC-based.

Pentium machine (100 Mhz or higher) with Video Conferencing accessories.

The functions provided by these Systems include one-to-one Video Conferencing document sharing; remote application sharing;

VIDEO CONFERENCING CENTRES AT NIC OFFICES:

Studio based Group Video Conferencing Centres:

Ahmedabad Ph: (079) 469903, (02712) 23035; E-mail: gujarat @x400.nicgw.nic.in
Bangalore Ph: (080) 5537123, 2863790; E-mail: venkat@kar.nic.in
Calcutta Ph: (033) 2407320, 3591950; E-mail: westbengal @x400.nicgw.nic.in
Delhi Ph: (011) 4364821; Fax: (011) 4362489, 4362628; E-mail: mmslab@x400.alpha.nic.in
Pune Ph: (0212) 324832; Fax: (0212) 327241; E-mail: bobde@mah.nic.in

Desktop Video Conferencing Centres:

Delhi Ph: (011) 4364821; Fax: (011) 4362489, 4362628; E-mail: mmslab@x400.alpha.nic.in
Mumbai Ph: (022) 2046934; Fax: (022) 2853562; E-mail: moiz.hussain@x400.nicgw.nic.in
Bhopal Ph: (0755) 558299; 551447; E-mail: mpstate@x400.nicgw.nic.in
Chandigarh Ph: (0172) 544349, 703341; E-mail: punjab@x400.nicgw.nic.in
Hyderabad Ph: (040) 240141, 234573; Fax: (040) 240014; E-mail: ramachandra@x400.nicgw.nic.in
Jaipur Ph: (0141) 373561, 380992; E-mail: rajasthan@x400.nicgw.nic.in
Chennai Ph: (044) 4917850, 8262774; E-mail: nic-mdrs@x400.nicgw.nic.in
Patna Ph: (0612) 220964, 239474; E-mail: bihar@x400.nicgw.nic.in
Bhuvneshwar Ph: (0674) 411592; E-mail: vinayak.rao@x400.nicgw.nic.in

Software Packages Developed for University Grants Commission

From our Local Correspondent

University Grants Commission (UGC) is a statutory organization established by an Act of Parliament in 1956. UGC operates various schemes to achieve its objectives for promoting higher education both in terms of quality and quantity. Some of the major schemes are aimed at development of infrastructure of universities and colleges, curriculum development, better facilities for research, physical education and sports in universities and colleges. UGC provides financial assistance to universities, colleges and individuals under these schemes.

The volume of data required to be maintained and processed for operating the schemes is so large that many a time it is difficult to find correct information at the right time. UGC has decided to reap the potential of Information Technology, which is now a proven technology, by computerizing all the major functions. UGC aims at total automation of the important processes. For this purpose UGC sought the help of the National Informatics Centre. UGC has given the responsibility of software development to NIC. (In this regard NIC signed a Memorandum of Understanding with UGC in January 1995).

NIC team conducted in-depth study of various functional and support divisions of UGC and analysed the requirements after

detailed discussions with the officials dealing with the activities. In all, NIC has to develop Software Packages for 29 important schemes and 13 separate administrative, financial management and office automation applications. Initially NIC has taken-up the computerization of 20 important schemes operated by UGC and 6 Administrative and Financial Management Applications.

The Software developed by NIC is a multi-user system so that the data stored in the servers can be accessed by authenticate User from anywhere in the UGC and they can concurrently make use of the same data for decision making.

Computerization of the schemes will enable the UGC to streamline the data management by easily retrieving and making full use of information available on the digital media.

The following Software Packages have already been handed over to UGC by NIC:

- ❑ Budget Information System
- ❑ Financial Accounting System
- ❑ Audit Paras Information System
- ❑ Subject Experts Database
- ❑ Committee Formulation System
- ❑ Commission Proceedings Database
- ❑ Management Information System (MIS) on Major Research Project
- ❑ MIS on University Science Instrumentation Centres

Punjab Chief Minister's Office Computerized

From our Punjab Correspondent

The National Informatics Centre Punjab State Unit has done a remarkable job of computerization of the Punjab Chief Minister's (CM) Office. The four sections in the CM Office which are computerized are Follow-up Section; General Section; Confidential Section and Legislation Section.

Follow-up Section: The main function of this Section is to take care of all the requests/complaints/demands addressed to the CM and to follow-up the action.

General Section: The main activity of this Section is to receive fresh representations to the CM and mark them to the concerned departments.

A generalized Software called Reference Monitoring Software (RMS) has been developed and implemented for the aforementioned Sections. All the letters are fed into the Computer System and the System automatically generates different despatch number as well as acknowledgement for the sender of the letter, for the two Sections respectively.

The System is query based and generates thirteen types of different reports for different level of administration such as department-wise reports individual-wise reports; district-wise; reminders of the defaulter (department) etc.

Confidential Section: The major activity of this Section is to keep records of the files coming to the CM's Office from various departments of the State for financial as well as administrative approval.

A Software known as File Monitoring System (FMS) has been developed and implemented for this Section. All the departments and designations have been codified. The System automatically generates receipt number for a file and various types of reports for different level of administration such as department-wise; list of cleared cases; office-wise list of pending cases; office-wise list of cleared cases etc.

Legislation Section: The main function of this Section is to take care of all the recommendation made by any Member of Parliament/Member of Legislative Assembly addressed to the CM and to take action on any question at the time of Vidhan Sabha Session related to CM's portfolio. Necessary computer system has been developed and implemented to take care of the various activities of this Section.

FLOWNIC: A Graphics Tool in UNIX / XENIX

From our Assam Correspondent

FLOWNIC, a graphics tool in UNIX/XENIX environment, has gained wide acceptability in the NIC State and District Centre of Assam. Three years back, the Assam State Unit of the National Informatics Centre came up with FLOWNIC in their search for a solution to the problems of pictorial presentation of information in UNIX/XENIX. Basically a limited-purpose Software Engineering Tool, this Software Package was developed using the Computer Graphics Interface (CGI) and the C language. Graphics tools being very rare in UNIX/XENIX, FLOWNIC has been a boon for NIC District Computer Centres most of which work in UNIX environment. With a library of 26 different geometrical figures which can be rotated on their axis, and sizes of which can be varied according to requirement, FLOWNIC is the ideal tool for construction of Data Flow

Diagrams (DFDs), Entity Relationship Diagrams, Programme Flow Charts and Structure Charts. The Package comes with a variety of lines and connectors of different types and sizes. Text drawing facility has also been provided, and the size and orientation of the font can be varied as required. Relocation, copying and deleting provisions accord FLOWNIC a very high degree of flexibility.

FLOWNIC's Slide Show Facility enables the User to set parameters in a text file and make a slide show of his information. Apart from this, it generates a structure-chart (similar to what C flow' does in UNIX for C programmes) for Foxbase+ program files. Besides the printer-driver available with CGI, a local printer-driver provides enhanced printouts and makes the package adaptable to a variety of dot-matrix printers.

A CGI driver is required to run the Software.

PROJECTS

State-of-the-art LAN

From our Pune Correspondent

The National Informatics Centre, Western Region, (WR) has successfully implemented a state-of-the-art Local Area Network (LAN) in Udyog Bhavan, Pune. This is the first LAN of its kind under NICNET which was installed in October 1996 and is operating successfully.

The main components of a structured cabling system are CAT 5UTP Cable; Ether Switch; Ether Hub; Information outlet; Jack Panel; Mounting Cord

quick migration to new technology and is easy to trouble shoot in case of network failure.

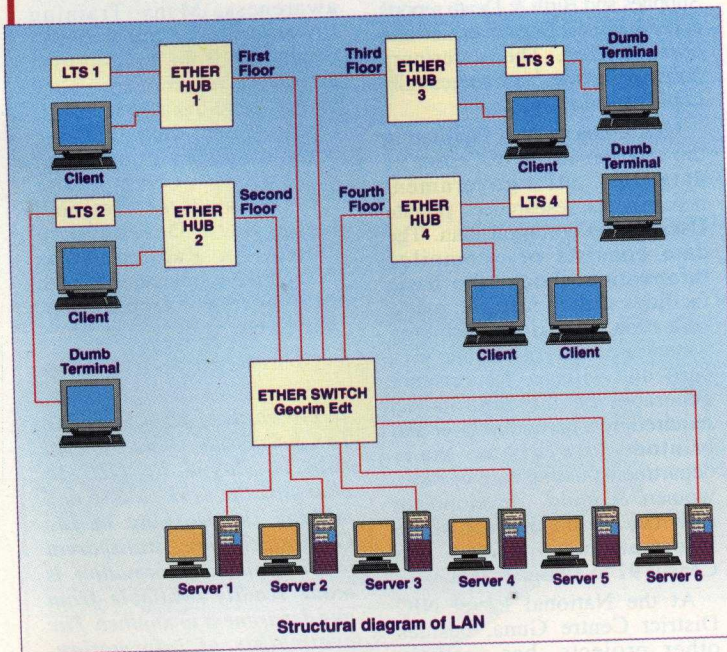
The system installed at NIC (WR) Pune consists of a Georim Edt Etherswitch having 16 numbers of 10 base T ports. A total of 6 servers, 1 router and 4 numbers of 10 base T Etherstax hubs each supporting 16 ports are connected to the switch as shown in the diagram.

The backbone of the LAN is CAT 5 cable with 45 Information outlets for connecting to either a Server, a Windows based client or LTS. The dumb terminals are connected to 5 numbers

of 16 port LTS installed in each floor of the premises. As the demand for higher bandwidth increases, the same network with a few changes will support up to 100 Mbps data transfer.

Presently there are over 120 dumb terminals and 6 Windows based clients accessing resources like Oracle 7.2, Basis Plus and Internet Web browsing from 12 servers either connected directly to the switch or hub. This Intranet has resulted in effective utilization of

resources with almost negligible down time and has opened up Internet access to a large number of employees in the building.



Structural diagram of LAN

The LAN is capable of supporting transfer speeds up to 100 Mbps between clients and servers. This system is cost effective, offers

Health Personnel Information System

From our Madhya Pradesh Correspondent

A directory of Health Institutions and a database of the doctors working at various levels in these institutions has been created recently in Madhya Pradesh. The directory covers about 2460 Health Institutions which include District Hospitals; Special Hospitals; Civil Hospitals; Community Health Centres and Block & Sector Health Centres. The database on doctors contains the qualification; posting history; working status; service duration etc, of over 5000 doctors working in various disciplines namely surgery, gynaecology etc. An appropriate computer-based Health-Personnel Information System (HPIS) has been developed and implemented by the National Informatics Centre Madhya Pradesh State Unit for management of the personnel (doctors) by the Health Department.

The System is very User-friendly and facilitates generation of various reports such as information pertaining to any doctor and Health Institution; district level statistical reports showing the number of doctors employed by discipline/working status/working period in tribal area(s) or in the same institution, designation etc. The System can also be used for generation of transfer report and promotion report.

The various reports generated from the system are helping the Health Department in making certain significant decisions related to Personnel management.

C Library for xbase Products

From our Assam Correspondent

The existence of a large number of databases in FoxBase+ format in NIC necessitates porting of these to ORACLE table structure in case it is decided to switch over completely to ORACLE, or integration is required between ORACLE and FoxBase+ databases. Complete porting of FoxBase+ databases to ORACLE again results in the problem of non-accessibility of ORACLE tables from previous applications. In order to solve this problem, the NIC Assam State

Unit has developed a C Library (cdbflib) for xbase products which will enable application developers to access data from xbase databases (including index files) and integrate it seamlessly in a Pro*C programme. In such an application, embedded sql statements will access the data from ORACLE tables and library (cdbflib) functions will access data from dbf files.

Actually, the library developed is not only for ORACLE-xbase integration but can also

be used independently for application development using C with functions having the same look and feel as their xbase counterparts. It includes most of the functions for database access, modification, use of index files, screen input-output, string and date functions etc.

Developers conversant with xbase environment and willing to switch over to C will certainly find this library useful. It presently runs under XENIX/SCO ; UNIX Rel 3.2/ Unixware.

NIC Guna: A Public Oriented Approach

The District of Guna is situated at a distance of 216 kilometres from the Madhya Pradesh State Capital, Bhopal. The Guna District lies in the north western region of Madhya Pradesh. It is surrounded by the territory of Rajasthan in the west and Uttar Pradesh in the east.

With a population of 13,10,317 the District spreads over an area of 11,065 square kilometre. There are 9 blocks and 2,277 villages in the Guna District. The place is famous for its "Chanderi" Saris.

PLANNED APPROACH

The National Informatics Centre, Guna District Unit was established on December 1988, with an objective of promoting computer culture among the Government Sector and general public. In the beginning, computer awareness programmes were conducted for the District Officers as well as their staff. These programmes covered introduction to computers, how computers can be helpful in day-to-day life, utilities of NICNET & NICMAIL facility etc.

The NIC District Centre, Guna's major areas of activity can be broadly classified under three heads i.e., creating computer awareness among the User organization; fulfilment of the Users specific needs in the field of information technology and implementation of State/National level projects.

IMPORTANT PROJECTS

The Guna District Centre regularly provides reports related to different sectors such as health, education, drinking water, transport and communication etc to District Administration and District Statistical Office. These reports are very useful in formulating the District Plan.

The NIC District Centre, Guna has established a computerized Public Grievances and Vigilance Cell in the Collectorate in order to enable the District Administration to look into the

grievances of general public efficiently. People can directly contact this cell at NIC Guna to find out the status of their grievance report. Block-wise/subdivision-wise details of complaints can be generated through the system. The cell is linked with the Chief Ministers Public Grievance Office, Bhopal.

One of the important projects undertaken by NIC Guna is the computerization of records of *patta dharies* in Guna District. A database of 54000 *patta dharies* has been created under the Schedule Caste, Schedule Tribe and Other Backward Classes categories. Provision has been made for the Guna District Collector to monitor whether possession has been taken or not by actual *patta dharies*.

Computerization of Arms Licences is a notable project undertaken by NIC Guna. The database developed contains the detail information about the arms licences issued/renewed since 1950. Reports can be generated cast-wise, thana-wise and category-wise. The main feature of the system is that it is in Hindi and therefore very user-friendly.

Implementation of Management Information System (MIS) for Jawahar Rozgar Yojana is yet another successful venture of NIC District Centre, Guna. The Software provides panchayat-wise, fund-allocation reports. Bank slips for each panchayat are also provided after performing the required calculations.

The NIC District Centre, Guna has successfully implemented a package called "Pragati", for the purpose of monitoring of works under Jawahar Rozgar Yojana (JRY), Employment Assurance Scheme (EAS), Million Wells Scheme (MWS) etc. The District Rural Development Agency's (DRDA) computer system has been hooked up with the NIC District Centre, Guna to provide maximum computer aid.

STATE / NATIONAL LEVEL PROJECTS

The NIC, District Centre Guna has successfully implemented the packages developed by NIC

State Unit, Bhopal from time-to-time.

Treasury has been computerized using Treasury Accounting Information System (TRACIS) and Treasury Receipt and Payment Information System (TRINFO).

MLA (Member of Legislative Assembly) Local Area Scheme has been computerized to monitor the works under the planning department.

The Public Distribution System (PDS) under Food and Civil Supplies and Birth & Death reports under Statistical Department are also computerized. The Veterinary Software has also been successfully implemented at Guna.

NIC Guna is also facilitating the widespread use of Census'91 data to all government departments, researchers, private User and to common man. The data consists of compiled information about the basic facilities such as medical, roads, education, electricity, drinking water, area etc, available in a particular village. Reports are generated on the information required by a particular User and printouts are given. Many departments taking care of rural, women & child development activities are making use of the information provided in Census'91 to a large extent.

At the National Level NIC District Centre Guna, besides other projects, has actively participated in the pulse polio programme; special health check-up programme and elections.

NICNET UTILIZATION

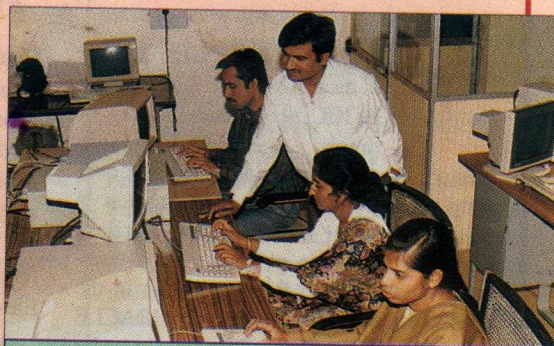
The NIC District Centre, Guna has provided the NICNET communication facility to a wide variety of Users. Departments such as Land Records; Treasury; Forest; Agriculture; Food and Civil Supplies; Veterinary; District Rural

Development Agency; Deputy Commissioner Milk; Education; Public Health Engineering Department (PHED); Statistical Office; District Planning Board; Mandi; District Industries Centre (DIC); DWEDO, are using the NICNET facility on a regular basis.

TRAINING PROGRAMMES

As training/workshop/seminar have a special part to play in the District for spreading computer and communication awareness. Many Training Programmes are being conducted from time-to-time as per the requirement of the User organization. NIC District centre Guna has also conducted a couple of Workshops on specific subjects such as National Water Shed Development Project for Rainfed Areas (NWDPA); Integrated Health Engineering Department (ICDS) etc.

In the words of Mr K D P Rao IAS & Collector Guna, "a vital role is played by NIC in changing the work culture and making the working of the Government more transparent to the public. Information is made readily available from one department to another. The availability of information, accurately and on a timely basis, in formats required by the officials concerned, has given a new dimension to the management of information within the structure".



The NIC Guna District Centre, Madhya Pradesh