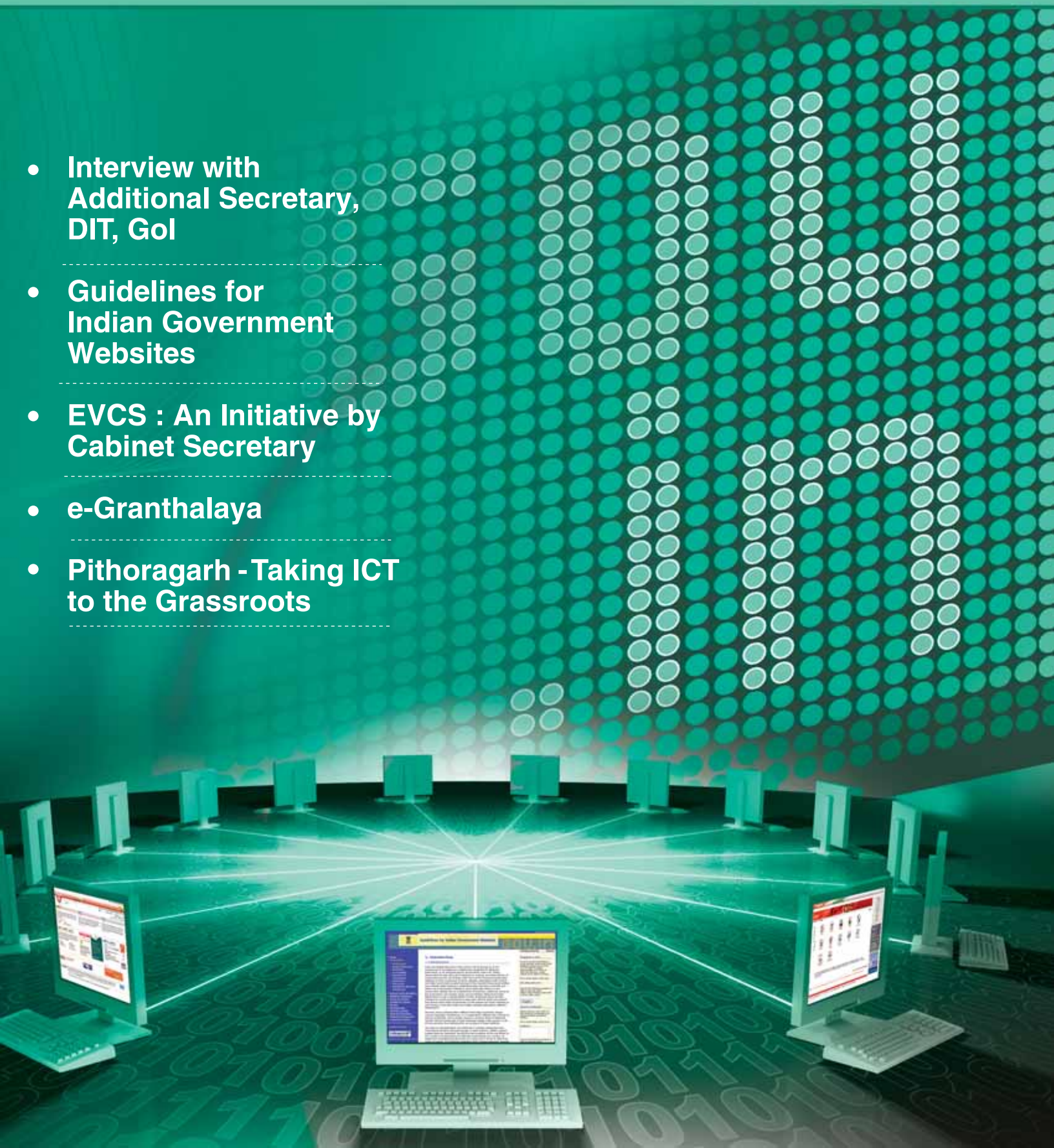


Informatics

AN  GOVERNANCE PUBLICATION FROM NATIONAL INFORMATICS CENTRE

- **Interview with
Additional Secretary,
DIT, GoI**
- **Guidelines for
Indian Government
Websites**
- **EVCS : An Initiative by
Cabinet Secretary**
- **e-Granthalaya**
- **Pithoragarh - Taking ICT
to the Grassroots**



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WWW Version

P. Hemamalini

Print Coordination

A. K. Aggarwal

Anita Arora

Circulation & Despatch

Anita Bhardwaj

Jasvinder Kaur

Editorial Assistance

Aditya Gogoi

Informatics

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With the increased proliferation of Internet & its availability through a number of service centres being set up all across the country, government websites are becoming the first point of interaction between the government & its citizens. Large number of websites has also been established in the recent years by various government ministries, departments as well as state & district administrations. Being the first point of contact, it is important that these websites establish the comprehensive presence of the departments in cyberspace. To facilitate government departments in establishing a citizen centric, up-to-date & universally accessible web sites, government has released guidelines for design, development & maintenance of the websites. Our lead story in this issue provides an executive summary of these guidelines along with salient features. Websites developed in compliance with these guidelines can also avail a Quality Certification from STQC.

Cabinet Secretary has recently launched an Executive Video Conferencing System (EVCS) over NICNET. To understand how EVCS is proving to be an efficient & effective tool for communication, inter-departmental interactions and consultations, refer to Products & Services Section of this issue. e-Granthalaya is a comprehensive library management software developed by NIC. It is being presently used by large number of libraries in government department & educational institutions. Detailed story on salient features & functionalities of e-Granthalaya is also covered in this issue.

In our exclusive States section we have discussed the e-Governance initiatives of the states of Chhattisgarh and Tamil Nadu and their impact on the functioning of government as well as benefits to the citizens.

In our Guest column, we are honoured to interview our Additional Secretary, Sh. S R. Rao. He shares his views on various initiatives taken under NeGP for developing the e-Governance infrastructure in the country. Sh. Chandra Prakash, Principal Secretary, IT & Electronics from Govt. of UP provides us an insight into the various e-Governance initiatives rolled out within the state of UP.

Besides, we also have our regular columns viz. Cyber Governance, News, Perspectives, Technology Updates, e-Governance in Districts of India.

Enjoy Reading!



Neeta Verma

We would like you to contribute to informatics. You can send your contributions directly to us at the following address.

Neeta Verma

Editor-in-Chief

Room No- 375, 3rd Floor, NIC-HQ

A-Block, CGO Complex, Lodhi Road

New Delhi-110003

editor.info@nic.in

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Guidelines for Indian Government Websites

Web enablement of citizen services is one of the focus areas of NeGP (National e-Governance Plan). Effective Communication is a key indicator of a successful relationship and websites are the first point of interface in building these relationships. They also facilitate an efficient and timely interaction between the citizens and the Government.



Neeta Verma
Senior Technical Director
neeta@nic.in



Lokesh Joshi
Senior System Analyst
lokesj@nic.in

Internet has gradually redefined the lifestyle of the common man. With the penetration of the internet and its availability on a range of devices it is highly likely that the first point of interface for enabling information and services from Government departments to the citizens' will be the Government Websites.

Over the years a large number of websites have evolved which has not only ensured maximum reachability of information but has also provided material uplift to information sharing. The "Right to Information Act" has further strengthened the initiative by requiring mandatory disclosures of certain categories of information on government functioning and its services to citizens and other stakeholders.

Such a system still does not validate the best practices of information delivery through websites. On critically evaluating a number of websites available in the government web space there emerge certain challenges that require attention. An illustration of these challenges is placed below:

- Lack of Identity
- Citizen Centricity
- Inconsistency in the presentation
- Absence of coherent navigation strategy
- Outdated content
- Compliance to best practices
- Addressing the access needs of differently abled people
- Website operations and management policies

These are major impediments in allowing citizens to effectively use the government websites. If we could find a mechanism to address the above challenges in government websites we shall be able to provide much better experience to citizens while accessing government websites. Such an attempt will also enhance the trust level of citizens while accessing information and availing government services online.

In view of the above the need to build a pragmatic solution across the challenges and ensure an effective practice for the delivery of information through the websites was felt.

Overview

In pursuance of the same, it was decided to develop the guidelines for Indian Government websites. These guidelines were developed by National Informatics Centre through an extensive consultation process involving senior representatives from the Government Departments both at Centre and State level.

During development of these guidelines the team had referred to the internationally accepted best practices for web development. The policies laid down by other countries were also studied and comprehended so as to relate them well with the Indian context. Relevant standards of ISO and W3C viz; W3C Web Content Accessibility Guidelines (WCAG 2.0) & ISO 23026 were also studied and duly incorporated.

The guidelines for Indian Government websites have been adopted by Department of Administrative Reforms and Public Grievances (DARPG) Government of India. DARPG has also made it an integral component of Central Secretariat Manual of Office Procedure (CSMOP). These guidelines were formally released in February 2009 at 12th National Conference for e-Governance in Goa organised by DARPG.

These guidelines are developed with an objective to make the Indian Government websites comply with the essential pre-requisites of UUU Trilogy i.e; Usable, User-Centric and Universally Accessible. It is suggested that these guidelines should be followed during the development of Government websites and portals at any organisational level belonging to both Central as well as State/UT governments.

Quality Certification

The website guidelines form the basis for obtaining website Quality Certification from STQC (Standardisation Testing Quality Certification), an organisation of Department of Information Technology, Government of India. For more details log on to the website stqc.nic.in

These guidelines are divided into three categories viz. Mandatory directed towards requirements which can be objectively assessed and which the departments are supposed to mandatorily comply with, Advisory which refers to recommended practices or advisories that are considered highly important and desirable and Voluntary which can be adopted by a department if deemed suitable.

These guidelines address the entire lifecycle of a website, web portal or a web application right from its conceptualisation to design, development, maintenance and management.

Key Domains:

- Government of India Identifiers
- Building confidence
- Scope of Content
- Quality of Content
- Design
- Development
- Hosting
- Promotion
- Management

Government of India Identifiers

This part of the guidelines pertains to the expression of 'Identity' in the websites. It guides the audience over the approach and the methodology to be adopted to ensure the veracity and authenticity of the official status of the websites. In order to maintain the same this section flows through the following touch points:-

- Ownership of Indian government is to be represented visually by the use of National Emblem of India on the homepage of websites. States may use their own emblem in case they have one and PSU and autonomous bodies must use their official logo. Ownership of the website is to be further consolidated by presenting the complete lineage of the department at the footer of the home page.
- The URL or the Web Address of any Government website is also a strong indicator of its authenticity and status as being official. With a large proliferation of websites, which resemble Government websites the role of a designated Government domain name assumes a lot of significance in ensuring the authenticity of the website.

Building Confidence

Trust is an essential element to build the relationship between the Government and the citizens and stakeholders. To uphold the same this section lays stress on framing of proper policies and disclaimers to protect the interest of both the department and the user of the website.

This section deals with the issues ranging from the department's policy towards the usage of content present on the website, the responsibility of department towards externally linked site and the terms and conditions of use of the website. Sample policies and statements have also been provided for ready reference.

Scope of Content

This segment relates to the content framework that should be followed in a government website. It categorises the content that is in the public domain (meant for the consumption of citizen), content for the internal use by the department and content that should be avoided in a government website is also highlighted.

The content in the public domain that forms the basis of this framework has been further categorised as primary secondary and tertiary content depending on the purpose it fulfils. Illustrative list of the contents heads in all the three categories have also been specified along with the guidelines pertaining to the compilation of content under each of these heads. The section also proposes the availability of certain minimum content elements on the homepage and subsequent pages.

While the whole gamut of the content has been discussed departments may choose the elements that fulfill the content requirements for their website.

Quality of Content

To ensure an effective reach the essential character is as how the content is compiled and packaged. This section provides guidance on various indicators to look at when exercising quality. It provides necessary inputs on various fronts such as content authenticity, accuracy and currency. The section guides well in terms of the quality of language considering multilingualism as a prime factor. In the same lines this section provides awareness on the methodology to ensure consistent terminology. One of the strengths of this section is the guidance on Information Architecture which entrusts ideally on the organisation of information, structuring the information, labeling and access to the information with minimum effort.

Design

Good design ensures enhancement of the user experience by presenting the content in a form that is easily understandable, navigable and searchable by the user, in addition to being visually appealing. The branding of a website can be established by incorporating common design elements such as colours, logos, styles, etc., into every page. This presents a professional and consistent visual identity as well as an important signpost.

This section of the document covers various areas involved in the design of the website like page layout, graphic buttons, typography, colour, images, audio, video, animation and also provides guidance on achieving consistent navigation across the website. The overall aim is to increase the usability quotient of the website. Navigational aids such as Site search and sitemap that are the key to ensure an effective usability function have also been discussed in this section.

Development

Developing a website involves use of technologies and tools in order to ensure interoperability and universal accessibility of websites. This part of document provides technical details on the approach to the use of markup language, cascading style sheet, use of scripting languages and also provides guidelines on various file formats to be used in the website. The section also provides a ready reference to guide the developers during the development process.

The development phase will also involve two significant areas validation /testing and web application security. These two phases ensure the correctness and validity of the content. The section recommends the use of leading practices and tools to test the site and also control risks associated with website security.

Universal Accessibility

The term 'Universal Accessibility' refers to making a website accessible to ALL irrespective of technology, platforms, devices or disabilities of any kind. Most pertinent guidelines to address the above needs have been given in various sections of the document and have been categorised as 'mandatory'. These guidelines have been adopted from W3C's 'Web Content Accessibility Guidelines'.

Website Hosting

Anywhere, anytime delivery of information and services to the citizens and other stakeholders is one of the primary objectives of a Government website. While it is extremely important to develop websites using state-of-the-art technologies, hosting infrastructure plays a crucial role in the performance, availability and accessibility of these websites. Hence, review of hosting server infrastructure as well as facilities at Data Centers is important prior to hosting. This section details the kinds of facilities and services that the Department should expect from their hosting service providers. It touches upon the important aspects like presence of security both at physical and network level, provisioning for regular backups and presence of redundant server infrastructure for fastest restoration of website in case of any eventuality. Departments are advised to have a contingency plan ready

in event of any unforeseen event like defacement, in this segment of the guidelines.

Website Promotion

Website promotion is a critical component in maximising reach. The ultimate objective of any Government website is to provide information and services to as many citizens and stakeholders as possible. In other words the websites should be accessible to ALL irrespective of technologies, platforms, devices or disabilities of any kind. This fulfillment of this objective will ensure maximum usage and participation by the citizens, thereby, assuring inclusive Governance.

To relate to an effective promotion strategy this section provides guidelines on the approach towards search engine registration and optimization and stretches to the efficacies of various promotion techniques. This part of the document also suggests on the usage of advertisements, public messages, press releases, tender notifications as a means to promote the website.

Website Management

The website management needs a blend of technical and managerial skill sets. This section provides an insight to understand and incorporate the correct practices required for the management of websites.

The critical areas in concern are the need to appoint Web information Manager whose responsibilities are to formulate the policies with regard to the website and also ensure the quality control and compliance to the guidelines and to maximize the reach of the websites through various promotional strategies. In case of a large website the Guidelines suggests a formulation of a team which includes a Technical Manager as well.

To ensure the compliance with the guidelines and standards the section discusses the tools required for website maintenance and monitoring. Website review and enhancement at planned intervals to ensure that the website lives up to expectation of the users have also been proposed.

The Section also stresses on the availability of different website policies to give a clear roadmap to management team and help them to take important decisions. The policies to be formulated are

- Copyright Policy
- Hyper linking Policy
- Terms & Conditions
- Privacy policy
- Content Contribution, Moderation and Approval Policy (CMAP)
- Content Review Policy (CRP)
- Content Archival Policy (CAP)
- Website Security Policy
- Website Monitoring Policy
- Contingency Management

Compliance to the Guidelines

It is envisaged that all government departments use these guidelines to harness the web in support of citizen centered governance. The advice is to apply education, enforcement and enhancement while using these guidelines and recognize them as a 'living document'. Compliance to these guidelines will enable the department to obtain Website Quality Certification from STQC.

This is the first version of the guidelines. National Informatics Centre is committed to bring about changes in the document in keeping with the technological changes and the suggestions/feedback of the users. We welcome Citizens and Government departments to share their knowledge and experience in our endeavor to provide comprehensive guidelines for Government Websites.

To take this initiative further a website has also been set up at <http://web.guidelines.gov.in>, where one can get full text of the guidelines in an easy to use manner.

Provision for online consultation for these guidelines is also envisaged on this website. Visitors can give their feedbacks on specific sections of the guidelines through this website.

In case you come across government websites complying with these guidelines, please let us know. We shall be glad to acknowledge the same on the above website. 

Interview with Padmashree Sh.S.R.Rao, Additional Secretary, DIT, Govt. of India

i **National e-Governance Plan (NeGP) is one of the landmark programmes of the department. It has been operational for some time now. How is it shaping up the e-Governance landscape in the country?**

SR: The National e-Governance Plan (NeGP) is the flagship programme of the Department of Information Technology. It comprises 27 Mission Mode Projects (MMPs) and eight core and support components. NeGP was formulated by the Department of Information Technology (DIT) and Department of Administrative Reforms & Public Grievances (DAR&PG) keeping in view the priorities of Government's National Common Minimum Programme. NeGP aims to promote e-Governance on a massive scale in areas of concern to the common man. It was approved by the Union Cabinet on 18 May, 2006.

Considerable progress has been made in the implementation of NeGP since its launch. Out of the identified 27 MMPs under NeGP, 16 schemes have been approved by the Union Cabinet / EFC and are either in the implementation or post-implementation stage. Schemes of some other MMPs e-PRI, Agriculture, Treasuries, Commercial Taxes are at an advanced stage of scheme formulation. The actual amount sanctioned and committed

for 16 approved MMPs is Rs.10622 crore. In addition to this, for the core and support infrastructure projects of DIT (State Data Centre, SWAN & Capacity Building) an amount of RS. 5270 has been Sanctioned and committed. More importantly, our private sector partners have committed to investing more than Rs 10000 crores.

To assist the States in effective implementation of NeGP MMPs, Capacity Building Scheme was approved by the Union Cabinet in January 2008, that envisions establishment of institutional framework for State-level Strategic decision making including setting-up of State e-Governance Mission Team (SeMTs). SeMT will be a group of people in a State mainly for providing technical & professional support to State-level policy- and decision-making bodies and to develop specialized skills for e-Governance at the State level. CB scheme also involves imparting of specialized training, orientation programme for SeMTs and decision makers (State legislature and senior bureaucrats), knowledge sharing and bringing in international best practices and Strengthening of Training Institutions in States. A Capacity Building Management Cell (CBMC) has been set up in DIT for overall coordination and implementation of Capacity Building Scheme.



i **ICT infrastructure is at the core of e-Governance implementation in the country? Under NeGP, initiatives have been taken towards development of e-Gov infrastructure across the nation for delivery & access to government services? Would you like to highlight some of them?**

SR: To sustain and support 27 Mission Mode Projects, core and support infrastructure is being put in place across the country. This infrastructure includes setting-up of Common Service Centres (CSCs), State Wide Area Networks (SWAN) and State Data Centres (SDCs).

As of mid-March, 2009 more than 33,000 CSCs have been set-up spread across 20 States. Master Service Agreements have been signed in 20 States with a mandate to roll-out

102,791 CSCs. The roll-out of the CSCs is expected to get completed by September, 2009. Similarly, SWAN has been operationalised in 6 States and in another 13 States its implementation is scheduled to get completed by April, 2009. Implementation in most States/UTs is expected to get completed by August, 2009. The work on setting-up of State Data Centres is also progressing at a rapid pace. Proposals of 27 States/UTs for setting-up State Data Centres have so far been approved by the Empowered Committee on State Data Centres. Around 20 State Data Centres are expected to be set up and operationalised during 2009.

i NIC has setup nationwide ICT network NICNET touching government ministries, departments, states, & district administrations with Data Centres & associated ICT Infrastructure. SWAN & SDC projects are further supporting the setting up of State wide networks & Data Centres at State level? What would be the big picture of e-Governance infrastructure in the country in next 1-2 years?

SR: It is true. The infrastructure State Wide Area Network (SWAN) and State Data Centres (SDC) -- being set-up in each State as a part of NeGP, is going to considerably strengthen and reinforce the existing ICT infrastructure NICNET and Data Centres already established by NIC. Once the infrastructure under NeGP CSCs, SWAN and SDC get implemented and become fully functional in most States / UTs, it will provide a broadband backbone that will facilitate the delivery of e-Services to the common man located in the remotest parts of the country in a seamless and integrated manner. The strategy and focus of DIT would now be to provide alternate service delivery channels to the citizens and to ensure delivery of all G2C e-services as envisaged under various Mission Mode Projects of NeGP. In the next 1-2 years, I envisage rural population accessing the various G2C services through the CSCs located closer to their homes.

i With such an infrastructure available, citizens shall be able to access government information & services even at village level. However, it is felt that lot

more government services need to be made online for citizens to leverage benefits out of these excellent initiatives? What kind of provisions is being made under NeGP to support ICT enabled delivery of government information & services?

SR: Yes, indeed. In NeGP, through the 27 MMPs, approximately 200 G2C services would become online once all the MMPs become operational and would be available for citizens and businesses for use. However, the expectations of the citizens and businesses from the government are increasing every passing day and we will have to live up to their expectations. It is, therefore, important for us to identify many more G2C services that could be web-enabled and delivered online. Considering this need a provision has already been made in NeGP where each State can choose 5 State-specific MMPs, in addition to the 27 MMPs already defined in NeGP, which are most relevant to the specific needs of their citizenry. Several states have already initiated e-Governance projects in the fields of Public Distribution System, Education, Health etc. which are under the implementation stage and that will affect daily lives of the citizen. Efforts are being made by DIT to further strengthen these initiatives by funding pilot projects, especially in innovative areas, received from the State Governments. Yet another significant project is that of e-District which is designed to capture most basic aspirations of the citizens in terms of certificates (such as birth/death, caste, income etc), various licenses and permits that are not covered under any of the MMPs and social welfare pensions and scholarships. The results achieved in pilot roll out have been significantly encouraging and we are in the process of seeking a nationwide roll out.

i NIC has been working closely with government departments for last three decades in their ICT initiatives in various capacities right from consultancy to architect, design, development & even implementation of e-Governance initiatives. How do you plan to leverage on the ICT initiatives taken in the past & working successfully?

SR: National Informatics Centre (NIC) has played a pioneering role in initiating and implementing e-Governance projects in the country ever since its inception. Its contribution has been particularly significant in carrying out the initial set of ICT-led interventions within Line Ministries, Departments and State Governments. These initiatives and their successful implementations have considerably raised the expectations of the Government departments and the common man.

Over the years, NIC has been playing the role of a technology service provider. In most of the MMPs under NeGP, NIC is involved in design and development as a project consultant. Given the increasing penetration of e-Governance in the country and also keeping in view the ever-increasing expectations of the common man, it is important for NIC to play a much wider and strategic role of that of a technology manager of systems across all levels of the Government. In a scenario when large scale e-Governance projects are being implemented using PPP model, NIC could assist Line Ministries / Departments retain strategic control of the e-Governance systems or critical IT infrastructure assets including data. A set of detailed guidelines “**NeGP Guidelines for Operational Model for implementation of MMPs**” have been issued clearly detailing the NIC's role.

IT initiatives taken in the past and those working successfully have to be supported and provided assistance for their enhancements and up-gradation so that these can continue to offer more value-added services to all stakeholders / users especially the common man.

i What is your vision on common man to be benefited from e-Governance initiatives?

SR: The National e-Governance Plan (NeGP) was formulated keeping in view the priorities of Government's National Common Minimum Programme and to promote e-Governance on a massive scale in areas

of concern to the common man. NeGP's key aim is to help in fulfillment of the basic needs of the common man using Information and Communication Technology. Accordingly, needs of the common man have been given central importance in NeGP's **vision** which is “*making all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realise the basic needs of the common man.*”

I would like to highlight that under NeGP, e-Services and their delivery acquires centre stage from the beginning itself and is ensured during subsequent stages of the project. It is mandatory that the very design of any egov project necessarily starts with extensive stake holder consultation ie the citizen and also maps out unambiguously the services and service levels that are sought to be provided under such initiative. At the time of design, development and scheme approval, provision of e-services (G2C) is ensured through common appraisal mechanism of DIT and through review of the Apex Committee headed by the Cabinet Secretary. At the implementation and post-implementation stages this is ensured by adherence / compliance to service levels as defined in the Agreements / contracts with the service providers and through assessment and certification by third party independent agencies like IIMA, STQC etc. **i**

EVCS over NICNET by Cabinet Secretary - Moving a Step Ahead in e-Governance

The Government is according high priority to various e-Governance initiatives. For improving e-Governance, communication is a key ingredient and forms the basis of instructions. The Cabinet Secretariat invited National Informatics Centre, DIT, GOI, to operationalise the Executive Video Conferencing System (EVCS) in the offices of all Secretaries to the Government of India and Chief Secretaries of all the States/Union Territories. Instructions had also been given to install multi-point Video Conferencing facility in the Committee room of Cabinet Secretariat to facilitate holding Committee of Secretaries meetings in a convenient and expeditious way.



Dr. Shubhag Chand
Technical Director
shubhag@nic.in



Anand Swaroop
Technical Director
anands@nic.in

Videoconferencing services at district level through NICNET were started in the year 2000. These services were started to help Central and State governments to review various programs and schemes from a conference room provided by State governments converted into VC Studio, on satellite network of NIC through DAMA VSATs. Presently, VC services are operational at 530 districts in the country and it is proposed to cover the remaining districts under NICNET domain.

Videoconferencing technology has now moved out of conference rooms, where it used to be confined traditionally. The credit goes to drastic reduction in average price of videoconferencing equipments and overall improvement in network infrastructure and bandwidth capabilities. These factors have helped in migration of videoconferencing from ISDN/VSAT towards IP.



Sh. K M Chandrasekhar, Cabinet Secretary, addressing the Chief Secretaries through EVCS.

NIC has taken the step to shift from group systems to desktop videoconferencing Systems by

introducing EVCS on NICNET. Hence, EVCSNET is the network on NICNET for providing videoconferencing for Secretaries of GOI, Chief Secretaries of States and UT & Planning Commission. The funds have been provided by the Planning Commission to implement this project. In the earlier communication system, officials used mainly the RAX phones. It is believed that desktop videoconferencing on IP can revolutionize the face of meetings for point-to-point as well as multipoint conference in which large number of Secretaries can interact. Initially, desktop videoconferencing was established in a close user group, comprising of Union Minister of State for Communication and Information Technology; Secretary DIT; and Additional Secretary, Special Secretary, Joint Secretary DIT and DG (NIC).

EVCS is an integrated system with 17" LCD display screen and a fixed camera with integrated microphone and speakers and is suitable for conducting small meetings. EVCS is



Sh. Arun Ramanathan, Finance Secretary & Sh. Subash Pani, Secretary Planning Commission also participating in the Chief Secretaries Conference through EVCS.

capable of connecting VC sessions over IP up to 768 Kbps using H.264 video codec. It is interoperable with Group VC systems using H.323 protocols and it has the capability to send and receive computer presentations using H.239 standards.

EVCS is equipped with Advanced Encryption Standards (AES) to ensure communications are confidential and secure. All the EVCS Systems have been registered with a centralized gatekeeper and their contact address book is being managed with Global Directory Management service.

NIC officers in various Ministries, Departments, States, and Union Territories have extended on-site training, documentation and demonstration to Secretaries and their staff.

Inauguration of EVCS over NICNET

Sh. K. M. Chandrasekhar, Cabinet Secretary, inaugurated the Video Conferencing services on EVCSNET on 27th February 2009 by reviewing the performance of various project and schemes of Government of India with the Chief Secretaries of 14 States from the Committee Room of Cabinet Secretariat, Rashtrapati Bhawan, New Delhi. Sh. Subas Pani, Secretary, Planning Commission and other Central Secretaries of Departments like Rural Development, Urban Development, Housing & Urban Poverty Alleviation, Road Transport & Highways, Railways, Power, Water Resources, Financial Services, Industrial Policy & Promotion, and Expenditure were present during this inaugural Video Conferencing Session at Cabinet Secretariat.

On this occasion, 12 other Central Secretaries of Departments of Economic Affairs, Agriculture & Cooperation, School Education & Literacy, Higher Education, Health & Family Welfare, Micro, Small & Medium Enterprises, Labour & Employment, Women & Child Development, Drinking Water Supply, Coal, Border Management and Home Affairs were connected through EVCS on EVCSNET from their respective offices.

The first session of the Conference started at 10:00 AM with opening remarks by Cabinet Secretary, who interacted with Chief Secretaries of Tamil Nadu, Maharashtra, Uttar Pradesh, Haryana, Gujarat, Rajasthan



An EVCS session in Progress

and Himachal Pradesh followed by interactions with Chief Secretaries of Karnataka, Madhya Pradesh, Andhra Pradesh, Orissa, Assam, and West Bengal in the second session. On 13th March 2009, Cabinet Secretary interacted with Chief Secretaries of Punjab, Kerala, Bihar, Chhattisgarh, Meghalaya, Tripura and Sikkim. On 16th March 2009, interaction with Chief Secretaries of Jammu and Kashmir, Jharkhand, Uttarakhand, Manipur, Mizoram, Nagaland and Goa was conducted with the Cabinet Secretary.

At the end of the meeting, Cabinet Secretary expressed appreciation for the services rendered by NIC through the EVCS and advised greater and more frequent use of videoconferencing services to speed up consultation and decision-making. Chief Secretary of Andhra Pradesh, Sh. Rama Kantha Reddy, requested for holding of such Video Conferencing sessions on a regular basis.

Video conferencing has carved a niche in the process of disseminating informations and business interactions via two-way video and audio transmissions simultaneously. With over an decade of experience in Video conferencing technology, NIC's technical expertise is unmatched in the country. In order to carry forward e-governance as a practical, cost effective and efficient tool, the EVCS based on the NICNET will enable inter-departmental consultations through effective and faster mode of communication. i

For further information, contact:

NIC- Cabinet Secretariat

shubhag@nic.in

VC-Division

vc-delhi@nic.in

e-Granthalaya - A Digital Agenda for Library Automation & Networking

Libraries are the social institutions as they provide various kinds of services to the users and citizen of the city / country. They have been the essential part of the education system in the society since early days. In the modern India, libraries have become the integral part of not only educational institutions but also other government setup like ministries, departments, district centres, etc. Keeping in view the large number of Public and Government libraries in India and also the high cost of commercial software, it becomes imperative to provide zero-cost software along with free support, training and services.



M. Moni
Deputy Director General
moni@nic.in



Ram Kumar Matoria
Technical Director
rkmatoria@nic.in

NIC has been a pioneer source to design, develop and support ICT tools and services for the Indian Libraries since its existence as the latter are integral part / divisions of the ministries, departments and other Government organizations. From 1994 to 2000, NIC distributed the Techlib Plus / Bassis Plus software to Indian libraries. During 2002 it was found that NIC had developed over 30 different library automation software for various ministries and Government departments. All such software were designed by various NIC groups for their respective ministries without following the standards, rules and practices prevalent in Indian libraries.

Later it was decided by the Committee constituted under the chairmanship of Sh. M Moni, DDG(NIC) to use e-Granthalaya Software among the many from NIC and to further develop and promote by the NIC.

e-Granthalaya

e-Granthalaya is a Library Management Software facilitates to automate not only the in-house activities of the library but also the user services. The first version of the Software was developed by the Karnataka State center of NIC, Bangalore. Later, the development was taken over by the Library and Information Services Division at NICHQs, New Delhi. The following table shows the release of various versions of the software

Ver.	Year	Technology/Platform	DBMS
1.0	2003	VB6/ASP	SQL Server 2007
2.0	2005	VB6/ASP	SQL Server 2000
3.0	2007	VB.NET/ASP.NET 2.0	SQL Server 2005
*4.0	2010	ASP.NET 3.5 with Silverlight2	SQL Server 2008

**future version*

Release of e-Granthalaya Software

Why e-Granthalaya Free

There is no such a designated agency in India, either Governmental, Professional or Private, which can provide a free software and services to these libraries. Central Governments as well as State Governments seem no serious for Indian Libraries development. Similarly, professional bodies in LIS always engaged in over-glorifying the profession and not provided the solution / tools even after 35 years of Post -Ranganathan era. Also, there are many Library Networks (DELNET, ADINET, CALIBNET, PUNENET, MYLIBNET, INFLIBNET, etc) in existence; however, very few provide the library services in a network environment. The simple reason is that these networks have not developed any tool/software to automate the Indian libraries and provide the services to them; they are financially poor and thus can not purchase commercial tools also. So, at NIC it had been decided to develop a good library automation software and to provide the same at zero cost to the Indian libraries. Moreover, we

understand that the libraries are non-profit making and social institutions and serve the society for its development.

Few library automation software are *LibSys*, *Alice For Window*, *SLIM*, *Autolib*, *EasyLibSoft*, *Gyanodaya*, *Libra 2000*, *Librarian*, *Libris*, *LibSuite*, *Nalanda*, *NewGenLib*, *NexLib*, *SOUL*, *SWIRL*, *VTLS*, *CDS/ISIS*, *DelDOS / DelPlus*.

Architecture

e-Granthalaya Ver. 3.0, released during 2007 has been designed keeping in view the requirement of “**Networking of libraries**” to share the records (Shared Cataloging) among a cluster of libraries. Thus, it has been decided to use a common/single database for a group of libraries / branch libraries and a common search interface i.e. Web OPAC for Union Catalog kind of search. It will facilitate to avoid the duplicate entries of catalogs and other authority files data such as Authors, Publishers, Subjects, etc. Every record is identified by the Unique LIBRARY CODE which is assigned uniquely to each and every participating library in the cluster. Besides, it has been decided to make it a 3-tiers application as given below:-

- *Presentation Layer Windows Forms (WPF)*
- *Business Logic Layer (BLL)*
- *Data Access Layer (DAL)*

To make the application ready for WAN Based data entry also, it has been decided to use **WCF** technology (Windows Communications Foundation) which wraps the

BLL and DAL Layers in it and is installed on the Server PC. At one end, WCF layer make connection to the back-end database (MS SQL Server 2005) specified in the “Web.Config” while on the other end, it serves to the Front-end data entry program of e-Granthalaya.

For Deployment of the software on client PCs, “**Click-Once**” technology has been used which deploys the application directly on the client PCs. This technology is also useful in up-dation of the client software automatically whenever latest updates are there on the web site.

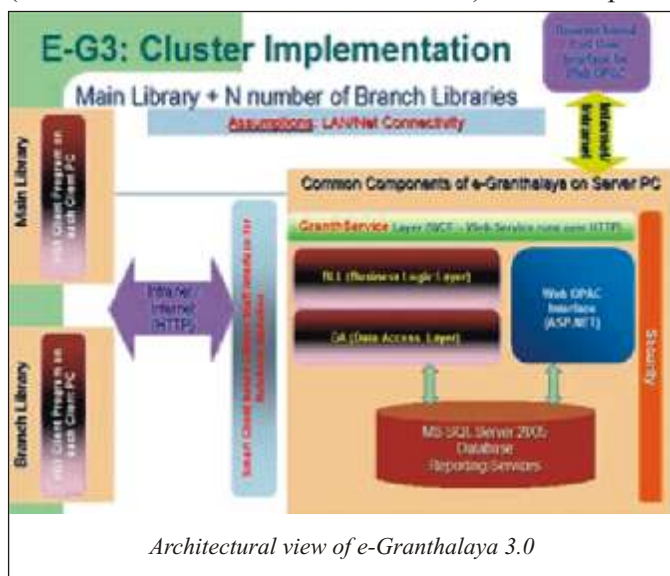
Some Specials Features include

- Multi-lingual, UNICODE compliant database
- Stand-Alone/ LAN / WAN based data entry solution
- Covered all in-house activities and user services
- Common database for cluster of libraries
- Common web based search interface (Web OPAC)
- Authority files for common data e.g. Authors, Publishers, Subjects, Type of Documents, etc
- Member Registration with unique entitlement and due days
- Single form for circulation of all kinds of documents and Inter Library Load (ILL)
- Bar Code generation facility
- Automatic generation of journals Schedule

Standards Followed

While designing the e-Granthalaya Software, it has been kept in mind the workflow used in the Indian libraries while processing the records in books and serials acquisition. Also it has been tried to make the application well integrated, no need of duplication data, even across the participating libraries in a common database.

Besides, as there are many international standards prevalent in the field, so it has been decided to make use of such standards like **AARC2**, **MARC21**, **UNICODE** etc. The software does not impose any catalog standard, although, the data entry of the catalog records are inclined towards the AACR2, an international standard for Cataloging. While designing the software, it has also been kept in view the fields/data elements suggested by the AACR2/MARC standards are included in the internal



structure of the database to make it compliant with MARC 21 while making output (Export) and import options.

Keeping in view the common search of the library catalogs within the cluster of libraries as well as across the cluster, it has been decided to make use of the current technology from Microsoft i.e. **SRW** (Search and Retrieve Web service) which aims to integrate access to various networked resources, and to promote interoperability between distributed databases, by providing a common utilization framework. SRW is a web-service-based protocol which is regarded as the big brother of implementation of the Z39.50 Information Retrieval protocol with recent developments in the web technologies arena. SRW features both SOAP and URL-based access mechanisms (**SRU**) to provide for a wide variety of possible clients ranging from Microsoft's .Net initiative to simple Javascript and XSLT transformations. It leverages the CQL query language which provides a powerful yet intuitive means to formulate searches.

The protocol mandates the use of open and industry-supported standards XML and XML Schema, and where appropriate, XPath and SOAP. SRW has been developed by an international team, minimizing cross-language pitfalls and other potential internationalization problems

Training and Support

NIC organizes regular training of 3-days duration for e-Granthalaya and NewsNIC users in various centres of the NIC. Many of the training have also been organized by the Users organization or some other Government

Departments. Users of the software may also organize training in their respective organization where faculty from NIC participates for the benefit of the users. Besides, One-Day seminars, DEMO, and e-Learning Session are also organized for the software users.

An e-Granthalaya mail forum https://lsmgr.nic.in/mailman/listinfo/egranthalaya_forum is also in existence to share the messages among the users. The e-Granthalaya web site <http://egranthalaya.nic.in> is a good source of the information about the software and is a medium to distribute the Updates of the software. The web site publishes the list of the e-Granthalaya and NewsNIC users also.

Users Statistics

e-Granthalaya and NewsNIC software users belong to all kinds of categories like Academic, Governmental, public and Corporate libraries. In the Academic sectors, the users are school, colleges, universities and other institutions libraries. The software is being used in the offices of the State as well as Central Government ministries and departments.

Conclusion

e-Granthalaya Software provides an opportunity to the Indian libraries to adopt the software for use in the libraries. The software, support and training is provided at zero cost and the software is updated regularly for new and improved utilities as well the technology. Those libraries which can not purchase a commercial software may use the software. Public libraries and Government libraries may also host their catalog/database in NIC server to make available their catalog online.

Other organizations in the field like libraries NETWORKS and associations may join hands with the NIC to get the benefits of the NIC tools and services for Indian libraries. Joint efforts from all sorts of parties in library profession may change the future of the Indian libraries in this way.

For further information contact:

P.K. Upadhyay

Technical Director & OIC

Library and Information Services Division

National Informatics Centre

pku@nic.in



e-Granthalaya Home Page

MIS for Indira Gandhi National Old Age Pension Scheme

Indira Gandhi National Old Age Pension Scheme is introduced by the Ministry of Rural Development, Govt. of India to provide a steady monetary assistance for all men and women of India above the age of 65 years of age and below poverty line. In addition to the existing IGNOAPS scheme, the Govt. of India introduced various new pension schemes to include other vulnerable groups of the society. To strengthen this scheme, a web based MIS system is launched by the Ministry to capture the database of beneficiaries of all pension schemes.



Anubha Goyal
Technical Director
anubhag@nic.in

National Informatics Center (NIC) was entrusted the preparation of Software Requirement Specifications (SRS) and development of an MIS for Indira Gandhi National Old Age Pension Scheme (IGNOAPS), a scheme under National Social Assistance Programme (NSAP) of Ministry of Rural Development (MRD).

The IGNOAPS-MIS was launched by Hon'ble Union Minister for Rural Development, Dr. Raghuvansh Prasad Singh, on the 19th of February 2009 in NIC Convention Hall in the National Workshop where participants from State departments dealing with NSAP and NIC State Unit officials were present.

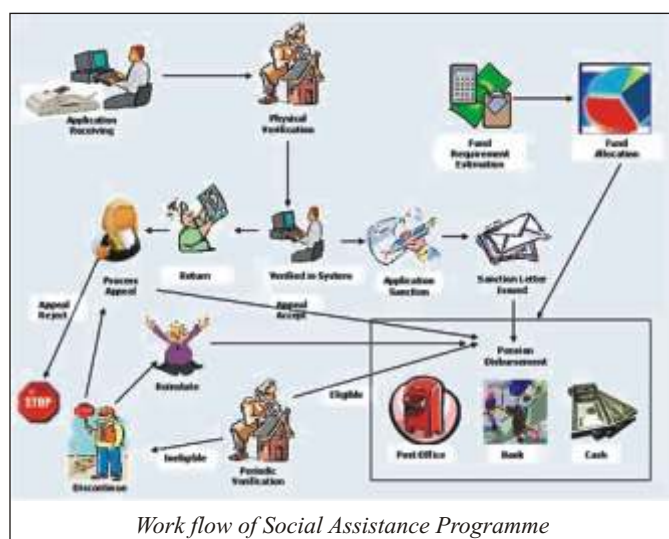
Along with IGNOAPS, the newly launched schemes Indira Gandhi National Widow Pension Scheme (IGNWPS) and Indira Gandhi National Disability Pension Scheme (IGNDPS) and an existing National Family Benefit Scheme (NFBS) would be catered to by the new NSAP-MIS. A brochure on NSAP-MIS was also released by Hon'ble Minister.

Salient features of MIS

- ♦ A web-enabled online monitoring implementation software with anytime and anywhere availability of data
- ♦ To facilitate e-Governance, focusing on G2G and G2C services
- ♦ To bring the details of pensioners and process data in public domain ensuring accountability and improving monitoring of implementation of the Programme
- ♦ To ensure the monthly disbursement is made every month to the pensioner, through the transparent fund monitoring system
- ♦ To ensure release of funds only when required / disbursed to the pensioners so that no funds are lying unused
- ♦ Work-flow solution where every manual process has a corresponding module in the software



Release of NSAP-MIS brochure by Hon'ble Union Minister Dr. Raghuvansh Prasad Singh along with Dr. BK Gairola DG, NIC and other officials



- ♦ To attempt standardization of common forms associated with all modules
- ♦ To ensure role based and authenticated data entry through user id and password
- ♦ To facilitate data entry from Gram Panchayat/Ward, Block/Municipality, District and State, to take care of internet connectivity problems with checking at database level for duplicity
- ♦ Real time reports which serve as an effective decision support tool

The key modules of the web based application, data entry level and frequency of updation is as follows:

- ♦ Masters for Users, Access controls, roles, Ministry, State, District, Sub-district / Municipality, Gram Panchayat / Ward, Village, Habitation, Legislative Assembly, Parliament Constituency, Scheme, Disbursement, Disability type, Category, Bank, Post Office, Status, Pension Amount
- ♦ Identification , Verification / Periodic verification, Sanction, Disbursement and updation of acquaintance of disbursement, Estimation, Allocation, Discontinuation, Legacy data

NIC is responsible for overall MIS project management including technical consultancy, hosting of website, infrastructure and implementation support at all levels from State to District while NICS I is responsible for resource management including software development, co-location support for servers, training at National level and State level.

The format for collection of legacy data for IGNOAPS has been standardized by the Ministry and made available as a part of common data entry software package at <http://rural.nic.in/rural.zip> (for rural administrative units) and <http://rural.nic.in/urban.zip> (for urban administrative units).

The software application shall be soon made available at <http://nsap.nic.in> alias <http://nsap.gov.in> after incorporation of further feedback obtained during workshop from the participants from States and security audit.

NSAP-MIS is a web-enabled, platform independent software, based on Open Source technology, providing local language support, using Unicode compliant fonts, simple to use, accessible using all browsers.

The software application is currently being planned to be supported by a dedicated web server and database sever along with support by SAN and other data center infrastructure / facilities.

State level workshops and trainings for selected 15 participants as a Training of Trainers (ToT) from States and Districts are planned to be conducted shortly. Provision of a Web enabled multimedia self-learning software package giving a detailed training / hands-on experience to any visitor has been initiated and under improvement. **i**

For further Information, mail at
mis-nsap@nic.in

Tamil Nadu- Displaying efficient Administration through e-Governance

With a large pool of highly skilled manpower and a solid backbone of old/new economy Infrastructure, Tamil Nadu enjoys the reputation of being one of the best administered and most investor friendly states in India. It has been judged as one of the best e-Governed states in the country in a recent survey. The following report gives an overview on why Tamilnadu is gradually developing into a centre of e-Governance excellence in India.



R. Gayatri
Regional Editor, Informatics
r.gayatri@nic.in

National Informatics Center has been providing IT support to the Tamil Nadu State Government and the Central Government Departments in the State for various e-Governance projects. Some of the major e-Governance projects which NIC TNSC has initiated are given below.

e-Procurement

NIC, TN has developed a Generic e-Tendering system in consultation with NIC (HQ) team and NICS, which caters to the requirements of various departments of Government of Tamil Nadu.

The first phase of disseminating tender related information started during July 2007 and on an average around 2000 tenders per month are made available to the public through the website <http://tenders.tn.gov.in>. Phase II, involving submission of e-Bids online started from November, 2007 onwards. Enrollment to the e-Tenders site is free of cost to the bidders. The system handles all the stages of the tender process from online submission to award of work. The system developed adheres to Open Standards and Open Technology. It has been certified as security compliant by STQC, Chennai. Prospective Bidders and Government Officers are trained on a regular basis. All the bid documents are digitally signed and encrypted and safely stored in the server before tender opening.

The product is currently being rolled out in the States of Orissa, Haryana, West Bengal, Uttar Pradesh and NICS.

e-Services for Land Records

'Anytime/Anywhere Land Records' which gives details on plots of land in rural areas to citizens over the Web was launched by Hon'ble Minister of Revenue, Tamil Nadu in May 2008.



Launch of Anytime/Anywhere e-Services for Land Records

Salient features

- ♦ Chitta (Ownership) details can be viewed / printed by providing Patta number and at least one of survey number or subdivision number owned by the Pattadhar.
- ♦ A-Register extract of the plot of land with details of soil class, soil type etc can be viewed / printed
- ♦ Chitta and A-Register extract generated through the system is given a unique reference number and the same can be verified through the verification option.

- ♦ Citizens can verify if a given survey / subdivision number is a Government owned land or owned by other citizens.
- ♦ Facility to agencies like Banks to verify A-Register and Chitta extracts generated from this Website by submitting the Unique Reference Number printed on the extracts.

The data is hosted at NIC servers comprising of more than 3.4 crore records of Survey No./Subdivision details and 2.5 crores of ownership details. The data from the taluks is getting replicated using open source software tool Symmetric DS to NIC data centre.

e-Services for Transport

e-Services for Transport Department which was launched by the Hon'ble Minister for Transport in June 2008 enables citizens to fix up appointments with RTOs for any transactions. One can now register and also know the status of Grievances online. The service also facilitates RTO officials to view the details of vehicle registration, Driving licence, check for theft / stolen vehicle, check for NOC issue, tax paid in other RTOs, view and reply the grievances from citizens and view/update the status of online appointments.

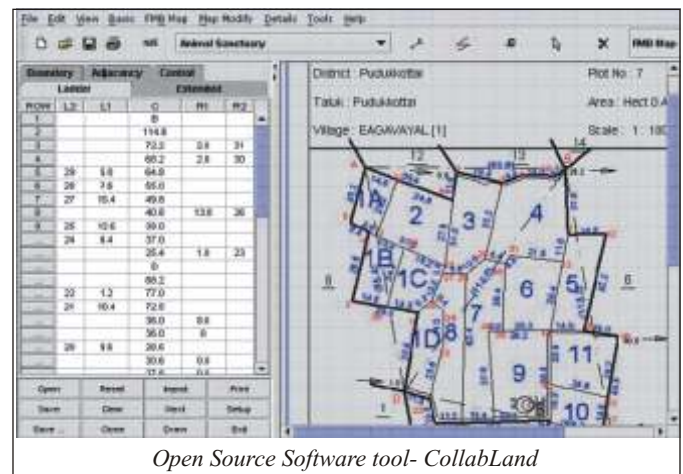
The database contains information of more than 66 lakh vehicles. The data from the RTOs gets replicated to NIC Data centre using Open Source Tools.



Launch of e-Services for Transport

CollabLand - Software for Digitising Field Measurement Books

CollabLand is an Open source Software tool developed by NIC CAD division and NIC, Chennai to render the Field Measurement Maps pertaining to Land Records. Its objectives are to Create FMB Map from Ladder table, View / Print FMBs on request from citizens, Handle transactions like Sub Division / Clubbing and Integrate Non Spatial and Spatial data



Open Source Software tool- CollabLand

The Software has been initially implemented in four taluks of Tamil Nadu and approved by the Revenue Department, Government of Tamil Nadu for implementation in all taluks of the State. More than 82,000 FMBs have been entered using CollabLand. It is being implemented in 22 districts of the State and more than 200 Surveyors in the State have been trained.

e-Filing of VAT Returns of Commercial Taxes

A web based Application Software has been developed for Commercial Taxes, Tamil Nadu. It facilitates “Any time / Anywhere” filing of Returns such as Form I, Form J, Form K, Form L and CST. Dealers can sign up e-filing voluntarily and can modify entered details anytime/ anywhere till the confirmation of the Returns; alternatively view their profile after confirmation of e>Returns. Confirmations of online submission of Returns and intimation of notice to defaulters are intimated through e-mail. The application also facilitates to search on Commodity code and Tax Rate based on commodity name, TIN search, Search on Clarifications and provides the option to upload purchases and sale of commodities, export goods details in Excel Format. MIS report on Filers

and Non-filers, Revenue Collections, Cross verification of Sales and Purchases etc are generated automatically.

More than 50,000 dealers are filing their returns online every month and more than 40 lakh records are uploaded as Annexures every month.

Online Micro, Small or Medium Enterprises (MSME)

A website for online submission of applications to obtain acknowledgement for 'Entrepreneur Memorandum' required for setting up Micro, Small or Medium Enterprises (MSME) was launched on 08/08/2008 by Honourable Minister for Rural Industries, Tamil Nadu.

Any new entrepreneur who wants to establish Micro, Small or Medium Enterprise can visit the website <http://www.msmeonline.tn.gov.in> and file his application online. After the application is filed, the acknowledgement for Entrepreneur Memorandum Form is generated online. This will facilitate the MSME unit to apply for Local body clearance, TNPCB clearance, etc. MSME Part II has also been launched through this site. This is applicable after the MSME unit starts production.

e-Services for Civil Supplies Department

Monthly PDS Allotment Software: An online system has been developed for arriving at monthly PDS Allotments. The system is used by all Taluk Supply Offices in the State. Allotment particulars for any period for any shop/ agency/ godown/ taluk can be viewed by District/ State level officials. Citizens can register themselves to get monthly emails about allotments made to their Fair Price Shop.

Consumer Grievance Redressal System: A system for consumers to register their complaints relating to PDS as well as non-PDS goods and services. Monitoring and follow-up is done by the Commissioner of Civil Supplies and District Consumer Protection Officers.

Online Monitoring Systems for Civil Supplies Department

- **Price Monitoring:** A reporting system for daily/ weekly retail/wholesale price data of essential commodities and vegetables from Districts for State level consolidation.

- **Tamil Nadu Civil Supplies Corporation:** Facilitates daily online reporting by 31 Regional Offices of TNCSC regarding Stock position in 226 Godowns. Allotment, Liftment, Stock Movement, Procurement and Market Prices are reported on a daily basis through this.
- **Enforcement Cell:** An online system for the officials of the enforcement wing of the Department to report details of cases detected, prosecutions made, commodities / vehicles seized.

Tamil Nadu Government website

The Tamil Nadu Government website <http://www.tn.gov.in/> has been designed, developed and maintained by NIC, Chennai. The website was awarded the 'Best Government website' in the 11th National e-Governance Conference held at Chandigarh. The website contains citizen charter, GOs of Public Interest, policy notes, public utility forms, tender notices and displays, particulars of Governor, Chief Minister, Ministers, MPs, MLAs, Secretaries, Collectors, State Government Telephone directory, Statistical Handbook, Pensioner's guide, Geology & mining rules, Monthly review of Tamil Nadu Economy, Links to Govt. related websites etc.



Online Grievance Day Petition

The "Public Grievance Redressal Monitoring System" is a web based application that has been used in the Hon'ble Chief Minister's Special Cell since 1993. Apart from looking into and pursue action on the petitions received

from various sources, it also ensures that the grievance is redressed along with suitable replies sent to petitioners by the appropriate departments. Web based Online Grievance Monitoring system has been implemented in 13 districts.

GIS for District Planning

District GIS has been initiated for two pilot districts viz. Cuddalore and Nagapattinam under the guidance of Tamil Nadu State Planning Commission. Salient Features of the application are:

- Any layer may be dynamically linked to any kind of attribute dataset.
- Dynamic thematic or choropleth mapping
- Simple Query module to enable query on the above attribute datasets and Complex Spatial or Administrative queries to query on GIS and attribute datasets.
- Non-numeric based dynamic thematic/unique symbol map creation module
- Spatial Search on Administrative Units

e-Governance for Chennai Metropolitan Development Agency (CMDA)

The basic objective of the e-Governance system in CMDA is to automate the entire process involved in Building Plan Permission System.

The System is completely workflow model and Intranet based with role based authentication. The complexity of the Building Plan Permission can be seen from the fact that the workflow involves a large number of steps (exceeding 50 in many cases), from Counter Stages till final Approval /Refusal stage. The system was launched by the Hon'ble Minister for Information and Publicity and Chairman, CMDA. The System so designed facilitates monitoring the status of Building Plan application requests by concerned CMDA officers through Intranet and enabling applicants to view the status through Internet.

Online Progress Monitoring System for Project Arrow

Web-based online system has been developed for Project Arrow, for the Department of Posts (DoP) to monitor the infrastructural and operational changes being introduced in more than 1500 Post Offices, on a daily basis, across the Country. This also allows for monthly updation of Revenue-Expenditure details by the Post Offices.

The PATRAM (Postal Accounts Transaction Maintenance) Software has been designed to maintain all accounting and auditing details being maintained in the Postal Accounts Office (PAO) through various registers. The PATRAM system has replaced 3654 manual registers at PAO Chennai. It is being implemented in 15 other Postal Accounts Offices for the circles of Gujarat, Haryana, Karnataka, Madhya Pradesh, Orissa, Delhi, Andhra Pradesh, Rajasthan, J&K, West Bengal, Uttar Pradesh, Maharashtra, Bihar, Himachal Pradesh, and Kerala.

Directorate of Teacher Education Research Training (DTER) Counselling

Directorate of Teacher Education Research Training (DTER) conducts single window counseling for admission to various Teacher Education Institutes in Tamil Nadu. Intranet based software has been developed to smoothly address the requirements of admission process, generate admission order and various reports. The software caters to Rank Generation of candidates as per the norms, Registration of the candidate, Counseling, Special Category Counseling, Admission Order generation, Allotment Cancellation and MIS Reports.

Open Technology Centre

Open Technology Centre is a division of National Informatics Centre, a nodal agency for Open Technology aiming to enhance the adoption of Open Technology (which includes components like Open Source Software, Open Standards, Open Hardware, Open Course ware and Open Product Design) in e-Governance applications managed by NIC/NeGP. The services on Open Technology can be accessed at <https://portal.otc.nic.in>.

NIC TNSC is also extending various services to the Government Departments like Internet and e-mail facility, training, VC facility, Web Site hosting, Handholding Support etc. 

For further Information, contact

P. Krishna Prasad

State Informatics Officer

NIC, Tamil Nadu State Centre

E-2A, Rajaji Bhavan, Besant Nagar, Chennai - 90

sio@tn.nic.in

Chhattisgarh - Cherishing the Challenges

Chhattisgarh, the rice bowl of India, got its name from the thirty six forts that once existed in the region. The state is blessed with wide range of natural resources, dense forests, coal, diamond, bauxite, iron ore, rivers etc. There are many beautiful places of tourist interest, sacred places for pilgrims and historical monuments for archeologists & travelers. The state is now aspiring to be one of the advanced IT states of the country & NIC is leaving no stone unturned to realize this dream.



M.K. Mishra,
State Informatics Officer
sio-cg@nic.in



Y.V. Shreenivas Rao,
Informatics Correspondent
yvsrao@nic.in

Established in the year 2001, NIC, Chhattisgarh has come a long way in spreading ICT services in the state be it Internet or e-mailing, implementation of National & State IT projects, software development to cater to local administrative needs, training or consultancy. NIC has been involved in every sphere of Information Technology in the state and gradually the results are showcasing the sincerity, dedication and untiring efforts of the entire team of State IT department and NIC, Chhattisgarh.

Infrastructure

- **Network Operation Centre (NOC):** The 'Network Operation Centre', which also serves as the Digital Gateway for Chhattisgarh, was setup by NIC to provide 24 x 7 network support to the State Government. The NOC handles more than 2300 nodes spread across the Secretariat, Districts, Post Offices and other Departments connected through RF, VSATs, Leased Lines and other mode of communication. The centre is also equipped with 6 TB Storage Area Network, high-end servers for hosting Internet applications under Unix, Linux or Windows environment. Hardware & software firewalls for secure access and antivirus server to control virus/ malware/ Trojans etc. Quality of Service (QoS) is implemented on network equipments to ensure reliability, availability and minimize data loss in case of emergencies.

- **Video Conferencing:** Video Conferencing facilities are available at NIC Sate Centre, Chief Secretary Office, Chief Minister Residence, State Information Commission, and all 16 NIC district centres. All are IP based equipped with of Quality of Services (QoS) to maintain excellent quality during VC sessions. MCU is installed at State Centre for conducting a multipoint VC at any given point of time.
- **Public Grievance redressing system through VC:** The VC setup in Chhattisgarh is being extensively used for addressing Public Grievances from last 5 years.. It is a novel way of Government-Citizen interaction where the citizens visit the District VC studios to interact with the General Administration Department on daily basis for redressal of their grievances. Many other departments including the CM Secretariat are also adopting the system for handling grievances relating to their office.
- **Web Services:** NIC, Chattisgarh State Centre provides all web services such as Website Design, Development, Domain Name Registration and Web Hosting to the State Government Departments. Currently more than 80 websites of the state are hosted at NIC-Hq Data Centre and more than 100 web based MIS are hosted at the State Data Centre.

- **Mail Messaging:** NICNET based Mail messaging services have been extended to approximate 1100 users of various Central/State government departments and Educational institutes spread up to the block level.

National level projects

- **VAHAN & SARATHI:** The vehicle registration automation component (VAHAN) & the driving license issuance process computerisation (SARATHI) have been implemented at Regional Transport Office, Raipur on pilot basis since 2004. The vehicle registration, tax collection, fitness and other software modules implemented by the transport department have put a check on duplicate draft submission, multiple registrations of the same vehicle, pending tax payments etc. The SARATHI application has helped in speeding up the process of issuance of new driving license, renewal of driving licence and issuance of learning license to the applicants.
- **CIPA:** The Common Integrated Police Application (CIPA) project has been implemented in 32 police stations of Raipur and Durg districts of Chhattisgarh on pilot basis. Various state level training programs and District level training for the SP office personnel and police station staff have been conducted from time to time.
- **IDSP:** Chhattisgarh has been one of the front runners in implementing the Integrated Disease Surveillance Project (IDSP) in the state. NIC, Chhattisgarh has extended support in setting up computer centre, VC cum training centers and providing operational manpower in the districts and state surveillance office. Under IDSP data is collected on a weekly basis and updated on the IDSP portal.
- **High Court & District Court:** The Judiciary Computerisation in Chhattisgarh started in the year 2001 with the inauguration of NIC High Court Computer Cell by Hon'ble Chief Justice of Chhattisgarh Sh. W. A. Shishak. The cell is coordinating different IT related activities of district and subordinate courts in the state. Some of the Major achievements include networking of all the sections of HC, preparation of Cause List using LOBIS (List of Business Information System), publication of cause

list on Internet and making it available at the counters for the convenience of advocates, litigants and public at large. A copy of the Approved for Reporting (AFRs) judgments are also collected over LAN on server and uploaded on internet. In addition, technical support to High court & District courts is provided in many ways.



Sh. M. K. Mishra, SIO, Chhattisgarh with Hon'ble Justice Sh. Y.K. Sabharwal

- **AGMARKNET:** The first phase of the AGRiculture MARKeting NETwork project was initiated in the year 2001 in 3 markets (Mandi/Agriculture Produce Marketing Committee). With the successful rollout of the project gradually all the 73 Mandis were fully computerised with proper infrastructure in place. A highly motivated team of NIC and the Mandi Board is continuously monitoring the progress of the project as a result of which more than 90-94 percent markets are reporting the rates on regular basis.
- **SEEDNET:** Chhattisgarh has taken a lead in the SEEDNET (SEED informatics NETwork) Project of Ministry of Agriculture, Govt. of India. The project was started in Chhattisgarh in the month of July, 2008 for Kharif season. During the Kharif 2008 season, Chhattisgarh was the only state to get all the records entered on to the national portal of SEEDNET.

State level projects

- **National Leprosy Eradication Program (NLEP):** NLEP is web based application developed for monitoring of leprosy cases in Chhattisgarh. GIS based reports have been included in application to

provide users, administrators & planners a graphical representation of leprosy cases up to the village level. This system provides very useful information to State Government for monitoring of Leprosy in the State. The application is available at <http://cg.nic.in/nlep>

- **e P a n c h a y a t** : e P a n c h a y a t <http://www.cg.nic.in/epanchayat> is a major step towards rural e-governance. The primary requirement in a state covered with hills and forest was to setup a communication network within the Panchayati Raj Institutions (PRIs). This was accomplished by installing 162DVB VSATs connecting the Directorate of Panchayat at Raipur with all the 16 Zila (district) Panchayats and 146 block panchayats of the state. This huge network is being utilized for implementing many rural development schemes. Some of the projects implemented over the network are Ruralsoft ,Priasoft ,NREGA ,Planplus and National Panchayat Portal <http://www.cg.nic.in/epanchayat>

- **MIS for Public Health Engineering Department (PHED):** This MIS developed for PHED facilitates effective planning, monitoring and implementation of various schemes undertaken by the department. The 15 web based MIS applications <http://cg.nic.in/phedmis> provide a central repository of the data for the department up to the sub division level. The modules developed cover the areas of scheme & program monitoring, PIS, finance and works monitoring, etc.

- **e-Kosh (Online Treasury Computerisation):** e-Kosh is an online solution for effective Fiscal Management, Budgetary Control on Expenditure, Receipts and Accounting. The project is based on the networked treasury concept, where all the 18 district treasuries, 1 city and 45 sub treasuries, 3 divisional joint director offices are connected with the directorate of treasury using VSATs to facilitate access to a common pool of data resources for budget distribution, online bill passing, pension disbursements, receipt consolidation etc. e-Koshonline provides online information to government departments, DDOs, citizens on expenditure, receipts, budget availability etc. in a classified manner.

- **Pension Management System:** Online pension management system has been developed to automate

the pension processes at divisional joint director offices. All pension related activities have been computerised.

- **NPS (CPS) Accounting System:** The New Pension Scheme (Contributory Pension Scheme) was initiated to facilitate the state government in implementing the new pension scheme for state government employees recruited on or after 1st November 2004.

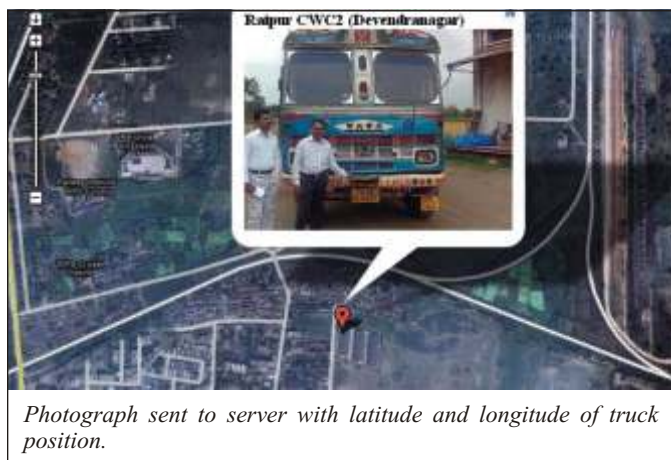


Commissioner (Treasuries) and incharge, NSDL signing agreement regarding NPS

- **e-Karmachari:** e-Karmachari is the repository of information of all the state government employees under Permanent/ Temporary/ Contract and Contingent categories. The data includes personnel and important individual service details.
- **e-Challan:** e-Challan is a web based software for online payments to government accounts through the selected bank's payment gateway. The only requirement for payment of any challan is a web enabled bank account to make these transactions. The payment collected by the bank is reconciled with the treasuries everyday.
- **Computerisation of Food Grain Supply Chain:** NIC, Chhattisgarh is the ICT partner to the state's Food & Civil Supplies department in the design, development and implementation of the ambitious project of computerisation of whole food grain supply chain in the state. The project includes complete automation of the food grain supply chain in the state right from procurement from farmers, its storage, milling and distribution to more than 3.7 million ration card holders through fair price shops. More

than 1700 locations covering six different organizations involved in food grain management have been computerised and a database of more than 3.7 million ration card holders has been prepared. All processes right from paddy procurement, payment, miller's registration, preparation of delivery orders, calculation of monthly allotment to FPS has been computerised. Call centre & citizen interface websites <http://cg.nic.in/khadya> have been setup for handling citizen grievances and disseminating information to public with the aim to increase their participation.

Implemented in year 2007, the project has resulted in registration of more than 1500 mills, adoption of uniform procedures across the state, ensured 100% lifting of food grains before 6th of every month and brought many laurels for the state government in form of six national and international awards including National eGovernance Award, Manthan Award, eIndia & CSI-Nihilent Award. It was even short listed for Prime Minister Award and World Summit Award. Many innovative concepts such as 'Adopting Motor Cycle Riders for data transmission' & 'Truck Dispatch Information to Citizens through SMS' have been integrated in the system to bring transparency and increase citizen participation.



- **BHUIYAN:** BHUIYAN project mainly envisages computerisation of Land Records maintenance, issuance of Record of Rights (RoRs) to land owners and simple, faster mutation of Land property. It has two modules the textual data module and spatial (MAP) data module.
- **e-Panjeeyan:** e-Panjeeyan is an application to computerize the Property Registration process at Sub Registrar Offices (SRO) of the state. The pilot

implementation is operational in three SROs of District Registrar Office, Bilaspur since September 2008. The e-Panjeeyan application has reduced the property registration time to 30-45 minutes and has helped in simplifying the preparation of various reports of administrative importance. It has helped in eradicating fake registrations to a certain extent and the property valuation guidelines are available are available at <http://cg.nic.in/panjeeyan> for enhancing transparency

- **File Monitoring System (FMS):** FMS <http://cg.nic.in/fms> is a comprehensive package developed to solve the problem of complex file handling procedure in the office. The software facilitates marking the files received by the department to different sections within the department and tracking the movement and pendency of file at each section. The software is being successfully implemented in many departments of the state Secretariat for the last 5 years.
- **Digital Signature Certificate Management Information System(DSCMIS):** The DSCMIS system <http://cg.nic.in/dsc> has been developed for online submission of the request for digital signature certificate and tracking of applications received for issuance of Digital Signature Certificate. The applicant can also trace his/her application status on NET. More than 1700 smart cards have been issued to the applicants using this system.

Apart from these many other applications such as computerisation of allotment of liquor shops on the basis of draw of lots by Excise Department, Election Support System etc. have been developed and implemented by NIC, Chhattisgarh, in close coordination with the concerned State Government Department. Also to support the NIC network users a help desk has been established at NIC State Centre, Chhattisgarh which is operational on 24 x 7 basis to attend all network related problems. 

For further details contact:

State Informatics Officer
National Informatics Officer
 Chhattisgarh State Centre
 1st Floor, Mantralaya, D.K.S.Bhavan,
 Raipur, Chhattisgarh
sio-cg@nic.in

Edited by: Anshu Rohatgi

Educating & Empowering Masses through IT

In an exclusive session with Informatics, Sh. Chandra Prakash, IAS Principal Secretary, IT & Electronics, GoUP talks about how the implementation of e-Governance initiatives is fast changing the image of Uttar Pradesh from an IT laggard state to an IT happening state.

Uttar Pradesh has been constantly working towards implementation of e-Governance & IT enabled services for general citizens, farmers, traders, students and employees, especially those living in far-flung and remote areas. The state government is also geared up for extending ICT in the rural areas through implementation of kiosks, single window systems, providing connectivity, bringing more departments, directorates and services under the fold of IT, and implementing quality standards within the organizations for enhanced citizen satisfaction.

The e-Governance initiatives rolled out in the state are effecting changes at every level of the Government resulting in more efficiency in its operations. Many of these initiatives have had a successful signaling effect for the outside world. They have effectively showcased how modern-day UP is progressing, how new infrastructure that is being added complements the existing resource base, and how ICT is being harnessed for implementing some of the best initiatives of good governance. With the implementation of e-Governance initiatives the image of Uttar Pradesh is fast changing from an IT laggard state to an IT happening state. Applications such as e-District, e-Scholarship Bhulekh, Tehsil Diwas,



Sh. Chandra Prakash, IAS
Principal Secretary, IT & Electronics
Government of Uttar Pradesh

Lokvani, Vyas have not only empowered the citizens but have been able to extend the benefits of IT right to the grass root level and reach the remote areas. The number of beneficiaries is continuously growing and the feedback in the form of satisfaction-levels of the farmers and general citizens that is being received on a continuous basis is in itself a certification of successful implementation of e-Governance in the State

Uttar Pradesh is also shining bright at many of the national and international e-Governance award ceremonies. These awards not only recognize the sincerity and hard work put into the e-Governance implementation, but also inspire people to perform better and take up new challenges. The list of projects is

long; however some flagship projects do need a mention to give an insight into the State Government's resolve to extend IT enabled services to the masses.

e-District

The first e-District Centre of the country was inaugurated in Sitapur on 15th December 2008 and with this Uttar Pradesh became the leader in rolling out this prestigious project of DIT in 6 pilot districts. The project seeks to automate the workflow and internal processes of District Administration with the possibility of seamless integration of various departments to provide services at the doorstep of citizens. A total of 32 services from 10 line departments were selected, on basis of demand and number of transactions to be offered through e-District.



e-District Interface

The software application ensures 100% electronic workflow of the service, citizens can track their application, escalation matrix ensures

the adherence to the service levels defined for each service and technologies such as digital signatures have been used for the first time for approval of the application & issuance of certificates. GPR has been carried at all levels to move from archaic rules to the modern technology based decision making and focus has been laid on training and change management right at the district, tehsil & block level of administration to fulfill the project's objective of providing services to the citizens in a friendly, transparent and hassle free manner.

e-Scholarship

e-Scholarship is a major step towards the governments goal of financial inclusion and transferring scholarship directly to the pockets/accounts of the beneficiary students eliminating middlemen and leakages. The project has great significance in terms of increasing enrollment & reducing the dropout rates with timely disbursement of scholarships and admission fee to the students. The project is one of its kinds in the country and has helped a great deal in developing a healthy social system by empowering rural people through education. It has already impacted life of more than 35 millions of students/citizens of the OBC, SC, ST, Minority & General category of the state.

Lokvani and Tehsil Diwas

Lokvani and Tehsil Diwas are aimed to empower the citizens by simplifying the grievances redressal mechanism thereby giving a practical shape to the Right to Information. Internet kiosks have been setup in remote areas to disseminate information and automate the complete grievance monitoring mechanism. The projects have also helped in IT penetration in the state and creating job opportunities for the educated but unemployed youth of the districts/rural areas.

UPSWAN

UP is amongst the front runners to implement the State Wide Area Network in the State. With more than 885 nodes UPSWAN one of the largest state owned networks in the country and in spite of enormity and myriad of hurdles almost 92% of the network is operational.

In a nutshell, introduction of ICT in the Government through the successful implementation of some of the above projects has resulted in the change of archaic rules

and old formats of information sharing. It has ensured that Government of the day keeps pace with the modern times making its delivery systems more responsive and more effective. There are a number of other initiatives such as automation of treasuries which has brought about changes in the state's financial rules. Computerisation of Land Records has caused changes in the state's land records manual. e-Patravali has introduced a novel way of working with documents and files in the Government. Property Registration System has caused changes in the established manual system of registration of land. Online counseling for admission to engineering, management and medical colleges of the state has completely revamped the earlier system of selection of choices and many similar examples highlight the necessity of Government Process Re-engineering which is an essential component for successful transfer of benefits of ICT to common masses

Of course, there are challenges to be met, as Uttar Pradesh is the most populous and one of the largest states in the country. It faces temporary impediments in the present circumstances with fast changing technology and high implementation costs involved in rolling out applications in the entire state. Change Management and Capacity Building are two issues that still need to be addressed in totality. Yet the state is taking long strides in harnessing ICT to position UP as one of the most IT-developed State of the country. Some of the economic zones created by the Government in UP are bearing fruits and the state is slowly but steadily turning into a preferred destination of private entrepreneurs for investment opportunities.

In my opinion concrete steps towards implementing e-Governance initiatives needs to be taken to extend the communication links to the rural masses and to connect them to the developing world. An important lesson that we have learnt from e-Governance initiatives in U.P. is that we need to empower the people by enriching them with information and enhance their reach to the Government. ICT has the capability to bridge the geographical boundaries, provide standard solutions, integrate different services and educate the rural masses. This will result in sustained development at the grassroots level and empowerment of common man in villages. 

S. B. Singh

State Informatics Officer
NIC-UP

Network Access Control and End Point Compliance

Cybercrime continues to rise, with the primary aim to compromise an organisation's information that will make a profit for the perpetrators. To avoid the unwelcome publicity provoked by IT failures, securing the network is more important today than ever before. It's also tougher to achieve, as today's networked world means giving end-users instant access to the information they need while meeting external regulatory compliance standards.



Seema Khanna
Technical Director
seema@nic.in

Most organisations don't have a realistic idea of who is connecting to the network, let alone how and what information they might have access to. In many cases, it is unlikely that unauthorised network guests will have malicious intentions, but simply that they don't have adequate IT protection on their computer, which could present hackers with an entry point to the network. While there's an obvious need for organisations to secure their own endpoints, they must also consider the level of access they wish to grant to visitors

End-Point Compliance- An Overview

The term End Point is used in a variety of ways in different contexts. For this paper, an End Point is an individual computer system, workstation or personal computing device. Common endpoints are laptops, desktops, and personal computing devices. An application server can also be considered an End Point when it functions as a network host.

End Point Compliance is the sum total of the measures taken to implement security concerning endpoints/ desktops. These measures include assessing risk to protect endpoints, such as with client antivirus and personal firewall, and protecting the network from the endpoints themselves, such as with

quarantine and access control. Also, End Point Compliance logically extends to the management and administration of these security measures, as well as to the risk, reporting, and knowledge management of the state and results of these measures

The need of End Point Compliance

The growing number and variety of threats to endpoints has made endpoint protection an essential tool. Current threats include viruses, Trojans, worms, the use of endpoints as DDoS zombie hosts, and spyware. New threats and new types of threats emerge on a regular basis. These threats take advantage of a growing number and variety of endpoint vulnerabilities. These vulnerabilities include the familiar, such as buffer overruns; the more insidious, such as keystroke-loggers and instant-messaging worms.

Organisations end up with extreme vulnerability to a bewildering array of threats that increase each day. Endpoints are where the typical organisation conducts most of its day-to-day operations, and disruption to endpoints is a huge impact to an organisation. Since endpoints are now a primary target of these threats, organisations are forced by necessity to confront Endpoint protection and compliance as a core issue.

Importance of End Point Compliance

There are two main blocks in the networked world. The Data Center, where the resources (intranet and information for public use) are kept and the users (end nodes). The end node could be a simple user or resource provider. Today, securing a data center is a default action whereas the act of securing desktops has been an area which has been majorly overlooked due to various reasons. In the past few years this weak link has been exploited successfully by a hacker. End points are millions in number and majority of them are non IT users thereby making them a good target to initiate the process for compromise. Hence, it is extremely important to protect end points with minimum discomfort to the user.

Modus Operandi

NAC solutions permit access to authorised computers by evaluating and enforcing the computers' security state based on whether they comply with the organisation's security policy. Endpoint computers are permitted access to network resources when they conform to policy, and are denied or quarantined from access when they do not conform. Effective NAC solutions rely on the ability of the network to positively enforce compliance and affirmatively block or quarantine access to unauthorized computers.

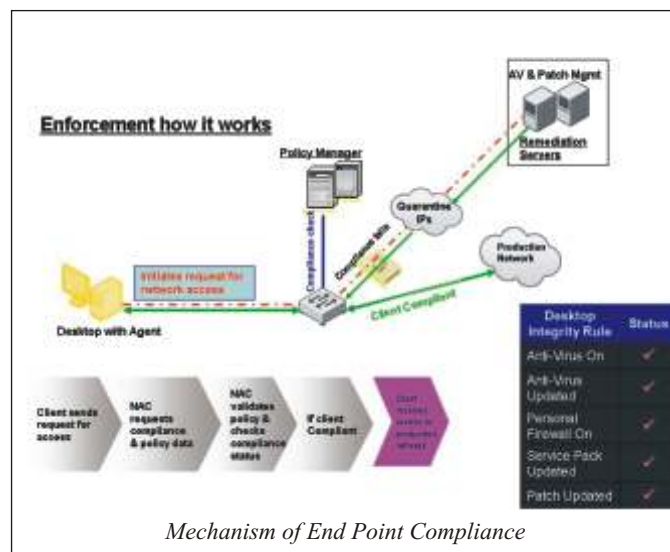
Traditional security solutions, such as firewalls, anti-virus, anti-spyware, patch management, or VPNs are no longer sufficient to prevent devices connecting to the network with unpatched software, out-of-date anti-virus and improper security settings. Not keeping devices up to date is probably the largest hole in the security fight today.

There are various ways to implement endpoint compliance countermeasures. Any administrator with access can flip a switch to turn off a service or shut down a port without understanding the true ramifications of doing so. The real challenge with implementing security for any living and breathing network is almost never a question of "how" to lock something down, but rather,

"how-best" to lock something down so that it still does what you need it to do.

Due to extensive reach and use of network, organisations now need proactive End Point security measures that can protect against zero-day attacks and even unknown threats. They need to take a structured approach to End Point security, implementing a comprehensive solution that not only protects from threats on all levels, but also provides interoperability, seamless implementation, and centralised management.

An ideal solution to be deployed in a diverse network should have inbuilt antivirus and antispyware signature-based protection. It should also provide protection from targeted attacks and attacks not previously seen. It should analyse application behaviors and network communications to detect and block suspicious activities, as well as administrative control features that allow administrators to deny specific device and application activities deemed to be high risk for their organisation.



While you may not be able to control everything your end-users do, you can take control of the last mile and implement better policies and technologies that make sure all devices accessing the network are healthy and secure. **i**

Data Leakage and Prevention Solution- The Next “big thing” in Security

Data Loss Prevention is one of the most hyped, and least understood, tools in the security space. In spite of the availability of many technologies, it can be difficult to understand the ultimate value of the tools and products best suited to the given problem. This report will provide the necessary background in DLP to help you understand the technology, know what to look for in a product, and find the best match for your organization.



V S Raghunathan
Senior Technical Director
raghunathan.vs@nic.in

The need to protect key information assets in a wide open online environment has given rise to increasing demand for Data Leakage Prevention (DLP) solutions. The growing outsourcing business, distributed centres combined with intelligent hackers and identity thefts places government in greater risk. The data in e-governance applications are getting centralised at the SDC's and connectivity to the data is extended through State WAN where data leakage is becoming a serious problem.



Applications like e-Office and paperless solutions wherein the entire file including the high priority and confidential files are digitally stored become vulnerable and any leakage is an alarming situation. The trust on the system is being questioned and this is one of the key challenges to the solution providers

today. Central and State Governments are beginning to realise that their networks contain high-value sensitive data and information such as financial approval files, planning documents, vigilance documents and key decision records. The information is not only of value to government but also to the stakeholders outside the government who may misuse the information to their benefit. The increase in outsourcing activities where data is with the third party increases the risk of data loss.

DLP Solution

DLP solution can be defined as set of Products and Solutions, based on central policies, identify, monitor, and protect data. DLP Solution can be classified as below.

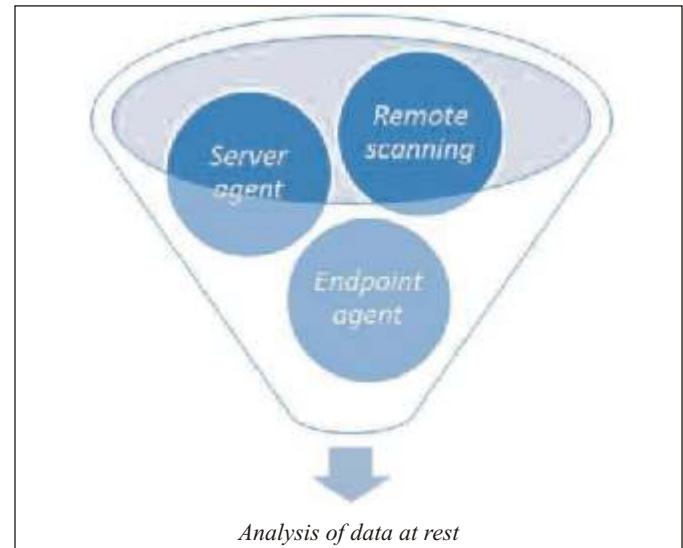
- **Scope of the Solution:** A typical DLP solution should address centralised management, policy creation, and enforcement workflow, dedicated to the monitoring and protection of content and data. The user interface and functionality are dedicated to solving the e-governance issues and technical problems. It also has to include features like detection and enforcement capabilities.

- Policy Enforcement:** Policy definition and bringing it in as office orders/guidelines is the core part of the DLP solution. Enforcement of the policy is the key. Strict policy implementation and plugging the gaps on continuous basis and policy revisions based on the incidences reported is essential. The first and foremost is that the departments must define clearly, what constitutes sensitive information and identify the data to be protected on priority and set the policy clearly. The policy should be defined unambiguously and enforced. Besides such clear-cut policies, organisations must deploy DLP solution which covers all stakeholders inside and outside the department who have access to the data. Any device including the laptop should be covered in the DLP solution to prevent data leak. Sensitive data getting into wrong hands can be prevented through encryption.
- Continuous monitoring:** Monitoring is a continuous exercise and sufficient resource requirements for monitoring need to be planned accordingly for an effective DLP implementation. Content discovery tools for deep content continuous analysis are needed. Some of the content analysis techniques include partial document matching, database fingerprinting (or exact data matching), rules-based, conceptual, statistical, predefined categories, and combinations of the above. They offer far deeper analysis than just simple keyword and regular expression matching. Ideally, DLP content discovery should also offer preventative controls, not just policy alerts after violations occur.

Deploying a DLP Solution

Before deploying a DLP solution one needs to be sure that all other basic security solutions are in place to make the DLP solution more effective. DLP products inspect the content as it moves across the network (real-time) and enforces policies so that confidential information is protected. DLP technology is a suite of products configured at various levels and requirements. Departments need solutions that provide real-time detection, analyze behaviour against the established policies and practices, address all audit requirements at all levels, monitor effective control of critical data and enhance coordination amongst various stakeholders in the system. DLP solution has to deploy the content analysis techniques to find policy violations. Different techniques are deployed such as remote scanning, server agents,

network endpoint violation checks based on the policy, need and monitoring needed. A good content discovery tool will understand file context, not just content. For example, some tools can analyze access controls on files and use the corporate directory to understand which users and groups have what access.



Data at rest is managed through

- Remote scanning for shares, encryption and violations. But care need to be taken not to degrade the network performance. Bandwidth throttling may be necessary to limit the network impact.
- Light weight server agent to scan each server. The agent scans the server locally and can be tuned to limit the performance impact and results sent securely to the central DLP solution management server.
- Endpoint agents with discovery capabilities, USB blocking/monitoring, network bandwidth, unusual leakage etc.
- Re-usable DLP components integrated in application to understand local context and possibly enforce actions within the application system.

DLP is neither an out-box-solution nor a onetime solution. It has to be constantly monitored and improved with new policies and measures to curb the data leak. DLP is a very effective tool for preventing accidental disclosures and planning better policy and processes around the sensitive data. **i**

Edited by: R Gayatri

Purnea - Showing ICT Prowess for e-Governance

Traversed by several rivers flowing from the mighty Himalayas, prominent among are 'The Kosi' and 'The Mahananda', Purnea, the north-eastern district of Bihar state, has rich loamy soil of alluvial formations making it ideal for the cultivation of jute and banana, both being the major agricultural products of the district. It is believed that the name of the district was derived from the lotus flower, which was once found in abundance in the past in the canal of the two major rivers.

The district has two subdivisions: Purnea and Dhumdaha and comprises eleven blocks: East Purnea, Krityanand Nagar, Banmankhi, Kaswa, Amaur, Bainsi, Baisa, Dhamdaha, Barhara Kothi, Rupauli, Bhawanipur.



Gautam Kumar Mishra
District Informatics Officer
bihpur@nic.in

NIC, Purnea came into being in the year 1989. Since inception, the District centre, has developed and implemented many ICT projects and Decision Support System, which has helped the district administration to be transparent, better informed and render timely services to the people, thus paving way for ICT enabled e-governance in the district.

Network Support:

Video Conferencing & e-mail: The Video Conferencing service has been provided using VSAT as well as Leased Line connectivity. The NICNET connectivity has also been provided to different offices in the district facilitating e-mail utility to all senior officials for faster communication and exchange of important documents. These services are available on 24x7 basis.



VC Studio NIC, Purnea

Website Support: Websites of the district administration, police department, rural development, Jawahar Navodaya Vidyalaya etc were designed and developed by the center. The Rural development website <http://rdd-purnea.bih.nic.in> gives details of various rural development schemes like Indira Awaas, NREGA, BPL etc. apart from useful links to other government sites.

Excerpt of the letter from Sh. Sridhar C. IAS, DM& Collector, Purnea, Bihar

I am happy to note that the e-Governance projects of Purnea District will be published in Informatics; Quarterly Newsletter of NIC, a source of sharing information on IT based technology in India.



Since its inception in the year 1989, NIC is providing best technical services for delivery of better services to the common man & the local administration. My trust with computerisation started in 2002 when I first came to NIC District Centre Purnea as IAS Probationer and completed my various assignments using matured IT tools available in the centre.

It is team efforts of NIC that the District Purnea is marching forward in implementation of meaningful e-governance projects like e-Khazana, transport, bhavisyanidhi, vinayak & others.

Time is not far-off when a remote district like Purnea shall emerge as a frontline IT hub in the region with the joint coordination of District Administration & NIC.



Rural Development Website

Major ICT Projects

Registry Office Computerisation: “Vinayak Software” designed and developed by NIC Bihar state center was implemented for the computerisation of Registry Office. Based on the PPP model, the project was successfully implemented at the SRO office, Purnea. Biometric devices like finger print scan and web camera are being used to capture images required for deed registration. The software, developed using VB6.0 and SqlServer database, has been a major e-governance initiative in the district making registration of various types of documents fast and simple.

Old Age Pension / Family Benefit Scheme: The application of ICT in the social sector has had great impact on the welfare of common man. Details of about 18735 beneficiaries under 'Social Security Pension Scheme' have been entered year wise using MS-Access software. Priority level of beneficiaries were marked thus making the scheme more transparent. List of BPL beneficiaries eligible for 'Aam Admee Bima Yojna' are regularly prepared.

Online Treasury Computerisation: “e-Khazana”, the treasury computerisation software was implemented at Purnea well before others thought about it in this crucial sector. Electronic advices are generated daily. Monthly accounts of Treasury are being prepared as per schedule. Treasury data are loaded at the site <http://treasury.bih.nic.in> on regular basis. The software was developed on Visual basic and SqlServer database.

MIS for General Provident Fund: Calculation of account slip, collateral evidence and checklist of govt.

employees are printed after the data is captured from the District treasury. The software was developed on VB 6.0 and MS Access database, which has enabled G2E services in the district.

BPL Database Computerisation: The below poverty line databases of Rural and Urban population were created as per the prescribed guidelines. Software was developed which uses the BPL-Urban Development database created for the purpose. The software was replicated at other district centres of the state. Thus, IT services have been used for the benefit of the common people.

Arms Licensing Software: Database of all arms license holders of the district were created. Software was developed for handling various types of queries. Reports, as per requirement of the district administration, are generated through the software. The software, incorporates legacy data, is highly user friendly and has been replicated at other districts of Bihar. The customized application was developed using MS-Access in the early nineties.

NREGA Soft: Purnea took a lead in implementing the NREGA Soft Project in the state. Online data entry is ensured from all blocks of the district. This has resulted in better planning and monitoring of NREGA soft project by the district administration.

IT Support to District Election: IT support has been provided to District Election Office, Purnea to cater its different activities as per guidelines of the Election Commission of India. To prepare photo-embedded voter list, NIC Purnea has taken lead to finish and publish the same within the stipulated time.

Other Major ICT Activities : Support to Rural Development Department, Support to District Revenue Department, MIS for Divisional Level Meeting, MIS for District Level Janta Darbar, MIS for District Nazarat, Computerisation of District Consumer Forum (CONFONET), Computerisation of District Transport Office, Common Integrated Police Application (CIPA). 

For further information contact:
sio-bih@nic.in

Edited by: Prashant Belwariar

West Singhbhum - Winner in Implementing ICT Projects

Adorned by hills and plateaus, spreading natural splendor with sparkling rivers amidst dense forests, harboring variety of flora and fauna, West Singhbhum, situated in the southern part of Jharkhand state. The largest district of the state, came into being in 1990, when the erstwhile Singhbhum district was bifurcated, with Chaibasa as its district headquarter. Tribals, constituting majority, producing exotic agro forestry products for their livelihood, have a unique charm and provide tourists an insight to their ethnic legacy.



Adyapada Tripathy
District Informatics Officer
ap.tripathy@nic.in

NIC West Singhbhum, established soon after the formation of the district, focussed on ICT based solutions for the district administration with the objective of ushering e-Governance for the benefit of masses.

ICT Infrastructure:

- **Network & e-mail facilities:** Video Conferencing service has been available to the district administration through 2 Mbps lease line. NIC e-mail facility is provided to all the senior officials including the Deputy Commissioner, Superintendent of Police etc. 2 Mbps lease line connectivity has been provided to the Post Office. State Wide Area Network (SWAN) was established with connectivity extending up to block level. Network facility is being used for online entry of MPR for Central & State schemes.
- **Common Service Centre's (CSCs) or "Pragyan Kendra":** Common Service Centres have been established in the district.

Workshops were conducted to train Village Level Entrepreneurs (VLEs) for implementation of different e-governance projects & other government procedures.

- **District Website:** The bilingual district website <http://chaibasa.nic.in>, apart from providing statistical, geographical and historical information, also gives details of various welfare schemes and activities undertaken by the district administration like providing links for IAY Waiting & Sanctioned List, BPL families List etc.

Major ICT Projects:

- **District Jail Computerisation:** The "Prison Management System" (PMS) along with the "Visitors Management System" (VMS) module was implemented at the District jail. The PMS helps to capture the case details of prisoners and the next date of appearing in court, date of release, etc. The VMS has helped in

Excerpt of the letter from Sh. Sunil Kumar, IAS, DC, West Singhbhum, Chaibasa.

I am happy to know that West Singhbhum District will be covered in the April'2009 issue of Informatics. Since 1988, NIC District Centre has been at the forefront, in providing ICT support to the administration on its various e-Governance projects.



Major e-Governance projects like Prison Management for District Jail, Computerisation of Land Records, Treasury Accounting System, NREGA Soft, VAHAN/ SARATHI for Transport sector, CONFONET for Consumer Forums etc. have been with active support from NIC.

We are going to implement e-Nagrik Seva & Public Grievance software developed by NIC through notified 'Pragya Kendras' (CSC's) in the district. I am hopeful that NIC will support extensively on our exercise to achieve "Integrated Village Planning Process."

The role of NIC in the current ongoing General Election process is commendable.

bringing greater efficiency and order in the prison. The details of every visitor, including photographs, are captured and monitored.

- **Land Records Computerisation (LRC):** LRC Software was implemented in the district. Training on the different modules of the software was provided to the data entry agencies, Circle Officers, Inspectors and Karmcharis. Data entries of Khatiyans and Register-II data of more than 3 anchals were completed. The client-server software has been implemented in a LAN environment with MS SQL Server at the back end in .NET framework.
- **National Rural Employment Guarantee Scheme (NREGS):** The NREGS Monitoring software was implemented at all the 15 Blocks of the District. The Role based Software captures the data at the grass root level. Registration details, Job card issued, Muster Roll Issued, Employment details, Work status, Paid Muster Roll, Fund availability, Expenditure detail and the status of Prospective Plan is available for citizens at the website. Various stake holders like Citizens, Gram Panchayat, Block Panchayat, Zila Panchayat & Line departments can enter data and generate reports.
- **e-Nagrik Sewa and Samvad :** Workshops were organised to create awareness among the officials about e-Nagrik Sewa software for application, preparation and disbursement of various types of certificates like Income, Residential, Caste and Births/Deaths needed by the people. Public Grievance System e-Samvad and e Nagrik Sewa have been identified for implementation through the notified CSCs in the district.



Hon'ble Minister Smt Jobha Manjhi, inaugurating e-Governance Workshop at Chaibasa

- **Plan Plus:** The district is among the 250 selected districts of the country supported under the Backward Region Grant Fund (BRGF). Plan Plus software is a

decentralized Planning tool, which helps the administration to take informed decisions through the planning process. The software keeps track of the need assessment, identification of project, work details, preparation of annual plans, after the approval by District Planning Committee.

- **Treasury Computerisation:** A web based Treasury Information System (Kuber) was implemented at Chaibasa and Chakradharpur Treasuries. Bank and treasuries computers were connected with the central data server through SWAN with 2 Mbps lease line connectivity. Bio-metric devices were installed for the Treasury officers to provide additional security level.
- **Transport Computerisation:** The VAHAN & SARTHI software was successfully implemented at the District Transport Office. Smart card was introduced to replace the paper documents thereby storing information securely on a chip, which helps in monitoring tax collection. VAHAN helps to register vehicles, collect tax, issue various permits and record fitness of vehicles while SARTHI is used to issue driving and conductors licenses.
- **Immunisation & Nutrition Monitoring System (Mamta Software):** "Mamta software" was implemented at the district hospital with an objective to monitor the health of pregnant woman and her child. It keeps tracks of intake of IFA tablet, TT dose, Tiranga diets, number of post natal visits etc. For new born monitoring the immunisation schedule, Anganwadi-wise due list of immunisation and the nutritional grade of the child are being monitored by the software, developed in .Net framework with SQL Server database.

Other major ICT activities includes: - Computerisation of "Indira Gandhi Old Age Pension Scheme", GPF /CPF Computerisation, Integrated Disease Surveillance Program (IDSP), ICT Support for 4th Grade Employees Recruitment, Network Support for Online MPR Entry of Rural Development Schemes, Support for establishment of IT Training Centre, Support to Nagar Panchayat Elections 2008, Integrated Village Planning Process, Agricultural Marketing Information System Network (AGMARKNET) 

For further information, contact:

Collectorate Campus

D.C. Office

N.I.C. District Unit

Chaibasa, West Singhbhum, Jharkhand

jhrwss@nic.in

Edited by: Prashant Belwariar

Pithoragarh - Taking ICT to the Grassroots

Pithoragarh, the picturesque district of Kumaon region in Uttarakhand, with a breathtaking panoramic view of Himalayas, summons tourists worldwide to its alluring grandeur of natural beauty. Sharing borders with China (Tibet) on northern side and Nepal on the east, the district has a population of about 5 lakhs spread over an area of 7090 sq. kms. The famous Kailash Mansarovar Yatra conducted by Ministry of External Affairs also passes through Pithoragarh.



Dr. J.J.S. Bisht
District Informatics Officer
uapit@nic.in

NIC - Pithoragarh District Unit was established in 1989 at Collectorate, Pithoragarh to serve the Information Technology needs of district administration and to promote computer culture among the government departments and general public by active participation and support in IT field in the district. Ever Since its inception, NIC, Pithoragarh has developed and implemented various Management Information and Decision Support System (MIDSS), to enable government to take informed decisions, formulate comprehensive plans and follow-up on delivery of public services, create user friendly public infrastructures to enable masses to participate in the process of governance at all levels and has helped in establishing different models of good governance in the district

Key Projects

Public Grievances Monitoring System (PGMS): PGMS is a user friendly system designed, developed and implemented to handle the public grievance related to administration, governance and services. The application also generates various reports & statistics to monitor and track the redressal of grievances.

Arms License Information System (ALIS): The ALIS application has

been developed for creating and maintaining a database for arms licenses within the district and facilitates their monitoring. The entire information pertaining to a particular license, date of its renewal etc. is fed into the database and updated on regular basis by the concerned official at the district and tehsil level.



Integrated Pay and Accounts Office (IPAO): IPAO is an integrated solution for the Payroll System of all employees of the state government and the Treasury Information System (TISNIC) to facilitate timely disbursement of salary to the employees and generation of reports related to Accountant General Office, Finance Department and other user departments with greater accuracy and in lesser time. The easy-to-use software covers execution of all pay related matters of the state government departments and their employees and recently arrear calculation module has been added to

take care of the recommendations of the 6th Pay Commission. In the process of establishing a treasury network, the sub-treasuries at Berinag & Didihat have been interconnected with wide area network of NIC through leased lines.

Digital map of Pithoragarh linked to district's web site: Map of Pithoragarh district from Google web site downloaded and marked with block, tehsil, and district head quarters. Also distance of BHQ and THQ from DHQ highlighted and this map was then linked to district's web site. The same procedure was adopted by the rest of the districts in Uttarakhand.

Land Records Computerisation (LRC): The LRC project was initiated with an aim to reduce corruption & inconsistency of land records data and promote e-Governance in the district. A unicode based application software DEVBHOOMI developed in VB.Net and MS SQL Server has been implemented in all the six tehsils and two sub-tehsils of the district from where the land holders are getting computerised Record of Right (ROR) at a very nominal fee on all working days. The Devbhoomi software automatically creates new KHATAUNIs after every six years and a touch screen kiosk has been set up at sadar tehsil for citizens to have a quick view of their Khata detail and RORs.

Commercial Tax Computerisation: A web enabled, VAT software developed by NIC Uttarakhand State Unit has been successfully implemented in Assistant Commissioner's Office of the district enabling registration of commercial establishment, TIN (Traders Identification Number) generation and managing other allied services. The software has facilitated better and prompt G2C services to the traders/dealers, accelerated the revenue collection through "Value Added Tax" (VAT) and helped the district administration in tracking the commercial tax defaulters.

Services

NIC Pithoragarh has been providing many IT related services such as IT consultancy, video conferencing, Internet, e-mail accounts & training to the different government departments in the district. Many G2C

applications have been launched for the benefit of people living in and around the district and a number of initiatives have been taken to bring more departments and services in the fold of IT.

A comprehensive and dynamic website <http://pithoragarh.nic.in> has been developed by NIC, Pithoragarh which contains all major information for government and public covering tourism, culture, socio-economic and statistical profile (magazine) of the district. Search facility is available for district telephone directory & district gazetteer while list of Govt. P.G. Colleges, BPL families, Indira Awas Yojna beneficiaries, RTI manuals etc. is also available for enhanced transparency and ready reference.



Other important projects

Apart from these, NIC Pithoragarh is also involved in many other projects such as SWAN implementation, collectorate LAN, remote updation of tehsil land record data, computerisation of lottery system for liquor shops allotment, computerisation of statistical magazine of the district, implementation of NREGAMIS etc. **i**

For further information, contact:

District Informatics Officer
NIC District Centre
Pithoragarh
Uttarakhand

Edited by: Anshu Rohatgi

International e-Gov Update

Ireland's TV Licence Online Service

Ireland's e-Government Initiatives are the recognised benchmark for excellence in Irish eGovernment services and standards. They are intended to raise awareness and recognise the innovators, developers, forward thinkers and experts who are pioneering the changes happening in the way the Irish Government delivers services to its citizens.

In one such initiative, the term entertainment has added a new dimension in Ireland with the introduction of TV Licence Online Service. This integrated online service enables a user to renew their existing TV Licence, purchase their First TV Licence or change their personal details. For a new buyer, the licence is posted within a fortnight. Likewise, while renewing a TV Licence online, a PIN number is provided from the TV licence station. A call centre is also set up for helping customers for their queries and requests.

The requisite payments for each service can also be made online using Visa or MasterCard. No matter whether he/or she is residing at the same address or moved their home to a different place, TV Licence Online Service allows to access these incredible services from the comfort of the home.

Under the Wireless Telegraphy Legislation, Ireland, it is mandatory to possess a licensed television set which otherwise is prosecuted as an offence to be in possession of an unlicensed television set. But now with the introduction of TV Licence Online citizens can now address all correspondence online without any hassle.

Log on to: <http://www.anpost.ie/AnPost/MainContent/Personal+Customers/More+from+An+Post/TV+Licence/tvlicence250108.htm>

Online Local School Enrolment in Helsinki, Finland

Education system in Finland is much admired by the world at large. Researchers in this field are always at a stake in finding new and dynamic ways to retain the competitive edge of Finnish education system. In one such endeavor, the education department of Helsinki, capital of Finland introduced a new online e-System "Wilma System" for children's enrolment in local schools for the academic year 2009. This new e-System is a Web-based interface of the student administration program Primus whose license is owned by education department of Helsinki.

The new eService is accessible only when the child is enrolled in the local school indicated in the compulsory education notification. The required user ID and password are indicated in the child's compulsory education notification. The new e-service is accessible in English, Finnish and Swedish

The online system has a wide arena of services which includes:

- ♦ Teachers can include the evaluations given to their pupils/students, assist them in completing their syllabuses or choosing their courses for upper secondary schools and keep a track on their performance.
- ♦ Parents/guardians can keep in touch with teachers and follow their child's performance in various subjects and explain absences online. Besides, they can even take part in surveys and learn about the school's strategies.
- ♦ Students can view their own performances online as recorded by the teacher. Simultaneously they can also read about the interactions between parents and teachers and alternatively send messages and answer online surveys. Upper secondary school students can furthermore select courses and check their classes' schedule.

Log on to: http://www.hel.fi/wps/portal/Opetusvirasto_en/Artikkeli_en?WCM_GLOBAL_CONTEXT=/Opev/en/Services/Wilma

America.gov - An Interactive Portal

Soon after Mr. Barak Obama was declared as the 44th President of the United States, the US Department of State's Bureau of International Information Programs launched a complete new portal "<http://www.america.gov> - Engaging the world."

The new portal is a more comprehensive, easier-to-use portal to learn more about the government, people life and culture of the United States. The portal offers abstracts of current articles, mostly from U.S. publications and by U.S. authors, highlighting significant issues in various major areas of international or U.S domestic affairs. Features are designed to have a extended self life, making content available for multiple purposes.

One of the major components of the portal is US engagements with the nations of Africa, the Americas, East Asia & the Pacific, Europe & Eurasia, Middle East & North Africa, and South & Central Asia. Apart from it the site also delivers important thematic information about current United States foreign policy, America's economy, democracy, development, science and technology and the country's international relations.

This official website of President Obama's administration will keep the citizens informed about the initiatives and policy directions of the President and encourage them to share the thoughts on the President's job. In a nutshell, America.gov is an interactive portal to meet the people, see the places, and explore the values and ideas that define the character of the United States.

Log on to: <http://www.america.gov>

Postal Tracking in Bahrain goes Online

Bahraini e-Government Authority's national portal, is now offer an additional new service of tracking letters and parcels online of the Bahrain Post. This new service names "Tracking of Postal Packages" represents a paradigm shift in the way postal services are offered by allowing users to find out their package information instantly, including location and delivery date, as opposed to the old system which required calling a hotline and waiting to speak to a customer service representative.

This new service will allow individuals, business, and government entities to easily track their letters and parcels online and around the clock by simply entering the package's 13 digit code followed by its type, and then following the instructions. The status and relevant information with respect to there package will be displayed.

This service is in sync with Bahrain Post's commitment to offering the best eServices to the citizens and residents of Bahrain through eGA portal www.bahrain.bh. Bahrain's Postal service is fully focused in its efforts towards enhancing the service.

This service is yet another step towards achieving fully integrated national network of electronic government services of high quality and added value. Besides the success of e-Postal represents the standards of services offered through cutting edge modern technology, which in the end elevates the kingdom of Bahrain status as pioneer in this area and benefits everyone.

Log on to: www.bahrain.bh

Cyber Governance

A look at some of the recently launched Indian Government Websites....

Department of Telecommunications, Govt. of India (<http://dot.gov.in>)

In an effort to help modern telecommunications activities penetrate India's socio culturally diverse society and to transform it into a nation of technology aware people, the department of telecommunications in India proceeded with the launch of their official website. A view at the homepage will allow a user to apprehend a slew of instructions and informations to access services and guidelines. Besides, the site also provides a platform to submit grievances for redressal of all type of complaints of the consumers.



Central Excise, Pune Zone (<http://punecenexcise.gov.in>)

The tech savvy Pune Zone of Central excise department, under the ministry of Finance, India added another feather to their cap with the launch of their official website. The Central Excise, Pune zone is divided into 3 zones i.e. Pune I, Pune II, and Pune III including Goa. The homepage includes information with good content coverage about the workflow of each zone along with the informations on acts, tariffs, rules and regulations, forms and returns, notifications, circulars etc. of their respective departments. Besides it also gives additional information about the city related to hospital, educational institutes, railways and airlines time table etc., which may prove useful for a visitor.

Goa Tourism (<http://goatourism.gov.in>)

A visit to this land of beaches has never been so official ever since the launch of the union territory's official tourism website. With a diligently crafted and prominently displayed logo undersigned with the tag "Go Goa- A perfect holiday Destination," the website offers a slew of information on Holiday packages, hotels, travel kits and department of Goa Tourism. The website also fascinates visitors by quenching their eagerness on Goa's cuisines, culture, festivals, history and people. After all, more than anywhere else on planet earth, this is a place where people really know how to relax. Hence this aesthetically appealing site is sought to be a one stop search point for those who really want to enjoy complete serenity with nature.



Tripura Renewable Energy Development Agency (<http://treda.nic.in>)

The website of Tripura Renewable Energy Development Agency (TREDA) is a strenuous effort to promote the new and renewable energy projects extended in the state of Tripura. Apart from highlighting the ongoing renewable projects running within the state, the site also caters to informations related to various source of non conventional energies and their uses viz., biomass energy, geothermal energy, wind energy, solar energy and hydropower. Besides, this visually pleasing site also includes various tenders and schemes available in TREDA along with the good navigation schemes providing links to ministries of new and renewable energy within the country.

Reviewed by: Lokesh Joshi, NIC HQ

National Portal Update

National Portal of India is NOW Universally Accessible

india.gov.in on its quest of establishing quality, time and again has delivered another thoughtful perspective to the practice of providing information through the websites. National Portal of India in its endeavor to ensure Universal Accessibility published its Accessibility Statement, which strengthens the commitment of accessibility to all its users irrespective of device in use, technology or ability.



This Portal is revised to meet priority 2 (level AA) of the Web Content Accessibility Guidelines (WCAG) 2.0 laid down by the World Wide Web Consortium (W3C). The various domains of accessibility to cater for are visual, motor ability, auditory, seizures and cognitive. india.gov.in has embedded measures to cover maximum areas in relation to the above domains.

A preview on the website accessibility features implemented in the National Portal of India is provided below:

- **Accessibility Options:** Options to change the size of the text and set a color scheme are provided. For example, if you are using a mobile device to access this Portal, the text might appear smaller on the screen that makes it difficult to read. In such a situation, this option can be used to increase the size of the text for clear visibility and better readability. Similarly change of contrast option is made available for users with color blindness.

- **Table Headers:** The table headings are marked and associated with their corresponding cells in each row. For example, if there are 30 rows and 5 columns in a table, it is difficult for a user with visual disability to identify which data cell belongs to which header. In this situation, an assistive device such as a screen reader can read the column header of any cell for the user. In addition, captions are also specified for each table that act as labels and indicate what data is provided in the table.
- **Alternate Text:** Brief description of all non-text elements are provided for users with visual disability. If in case the user is using a browser that supports only text or the image display is disabled, the user can still know what the image is all about by reading the alternate text in absence of an image.
- **Explicit Form Label Association:** A label is linked to its respective control, such as text box, check box, radio button, and drop-down list. This enables the assistive devices to identify the labels for the controls on a form.
- **Keyboard Support:** The Portal can be browsed using a keyboard by pressing the Tab and Shift + Tab keys, thereby, enabling access by people with challenges on motor ability.

The content available through india.gov.in is written in plain language and is organized using appropriate headings and subheadings that provide a readable structure.

Expert and novice users who are visually challenged were invited during the inauguration of the workshop on Centre of Excellence for e-Governance which was inaugurated by Sh. A. Raja, Honorable Minister of Communication and I.T. and Sh. Jyotiraditya Scindia, Honorable Minister of State on 17th February 2009.

As a part of the commitment, the team of National Portal of India is presently working on making the Hindi version bharat.gov.in accessible. 

D.P. Misra, NIC HQ

In the News

The Initial Phase of National Knowledge Network (NKN) was inaugurated on 9th April 2009 by the Hon'ble President of India Smt. Pratibha Devisingh Patil.

NKN is the realisation of a vision of an Indian knowledge superhighway, for which a need has been felt by various stakeholders. Discussions between the office of Principal Scientific Advisor to the Govt. of India and the National Knowledge Commission resulted in evolution of a consensus for requirement of a National Knowledge Network. The objective of the NKN is to bring together all the stakeholders in Science, Technology, Higher Education, Research and Development, GRID Computing, e-Governance with speeds scalable eventually up to the order of 10s of gigabits per second coupled with extremely low latencies. It aims to interconnect all knowledge and research institutions of the country by a unified high bandwidth information backbone to enable applications which require sharing of electronic resources, grid computing, tele-medicine, collaboration amongst knowledge workers, virtual classrooms, virtual libraries and E-Governance etc. The NKN is being managed by National Informatics Centre (NIC) as a state-of-the-art multi gigabit pan India digital communications network. It has been designed to ensure the highest level of availability, quality of service with robust, secure and reliable connectivity. The architecture of initial phase of NKN is scalable and it is built around a high-speed core (2.5 Gbps) complimented with distribution at nearly 15 points-of-presence at appropriate speeds.

Major participating institutions will have an option to connect to the NKN distribution points at 1Gbps or more. In the Initial Phase, it is planned to connect 57 institutes and 16 institutes are already connected and process of connecting the rest is on.

The realisation of Initial Phase of NKN will provide a catalytic effect and pave the way for final phase of NKN implementation in terms of reach, technology and wide variety of core applications.

R.S Mani, NIC HQ



Tape Cutting Ceremony by DM, Muzaffarnagar

Muzaffarnagar - Touch Screen Kiosk Inaugurated by District Magistrate

Sh. Buhvnesh Singh, IAS inaugurated Bhulekh Touch Screen Kiosk installed at Sadar Tehsil for getting the current status of individual land record. This kiosk has been setup under the scheme of UP Board of Revenue of setting up a Touch Screen Kiosk in Sadar Tehsil of each district. This facility will enable farmers to take advantage of this immense potential service by allowing them to check the updated status of their land holding at their fingertips. Sh. Gaurav Tyagi, DIO, NIC-Muzaffarnagar explained and demonstrated the working of this kiosk to the District Magistrate, Revenue Officers, farmers and media person

present there on this occasion. Dr. Sh. Hemant Gaur, SSA supported and conducted the whole event. During the inaugural function Sh. Bhuvnesh Singh, DM Muzaffarnagar appreciated initiative taken by NIC Muzaffarnagar in setting up this facility.

Gaurav Tyagi, Muzaffarnagar

District Level (ToTs) Planplus Training in Nagaland

As the year 2008 being declared as the Year of Capacity building, training at various levels are being imparted. Initially with three districts Mon, Tuensang and Wokha identified for the project, later on with the bifurcation of Tuensang district into two new districts - ie Longleng and Kiphire districts, five districts are being given intensive training. The PLANPLUS Software developed for the online monitoring of BRGF projects was trained to the participants (District level ToT's) from 27-29th October 2008 who will act as the District level Trainers. Ms. Swedesenuo Natso, Sc. Officer & BRGF Project Co-ordinator, NIC and Sh. Apao Mathew Rhezhru, SSA, NIC, Nagaland State Centre were the resource persons. Earlier a three days workshop for State level officers and sensitization for the Elected members (Ministers & MLA's of the five districts) was conducted from 7-9 July 2008 where Mrs. Manie Khaneja and Sh. A.C Gupta, from NIC New Delhi were the Resource persons.



Planplus Software BRGF Training underway for District Level ToT's at SIRD

Swedesenuo Natso, Nagaland



Sh V K Malhotra, Chairman, Board of Revenue, inaugurating the eDistrict Centre

eDistrict launched in Uttar Pradesh

Uttar Pradesh became the first state in the country to launch the eDistrict Project in 6 pilot districts Sitapur, Rae Bareilly, Ghaziabad, Gautam Budh Nagar, Sultanpur and Gorakhpur. Sh. Vinod Malhotra, IAS, Chairman, Board of Revenue, GoUP inaugurated the first eDistrict Centre in Sitapur followed by Rae Bareilly, Gauntam Budh Nagar and Ghaziabad.

eDistrict project is a State Mission Mode Project under the National e-Governance Plan (NeGP) of Ministry of Communications & IT. The project seeks to automate the workflow and internal processes of District Administration with the possibility of seamless integration of various departments. A total 32 services from 10 departments have been selected for complete automation.

The 'eDistrict' application is a web based solution (<http://edistrict.up.nic.in>) which ensures hundred percent electronic workflow of the service - right from receipt of applications to the final delivery of service has been developed by NIC, UP. The status of application can be tracked by the citizen and the government officials through the portal and the escalation matrix ensures the adherence to the service levels defined for each service. Technologies such as digital signatures have been used for the approval of the application and issuance of certificates. GPR has been carried at all levels to move from archaic rules to the modern technology based decision making, focus has been laid on training and change management right at the district, tehsil and block level of administration to fulfill the project's objective of providing services to the citizens in friendly, transparent and easier manner.

Anshu Rohatgi, Uttar Pradesh

Visitors Management System inaugurated at District Jail, Deoghar, Jharkhand

"Visitors Management System (VMS)", a module of the software - "Prisoners Management System" (PMS) has proved to be effective in jails from security point of view and in implementing the various provisions of the jail manual with respect of visitors meeting the under trials. The VMS module issues photograph based identity cards to the visitors for the purpose and in the process captures their details in the computerised system for future reference and investigations, if so required. It will deter unauthorized visitors and dissuade sneaking of prohibited items into the jail.

The above, views were expressed by Hon'ble District Judge, Sh. Narendra Kumar Srivastava, after inaugurating the computer center, established for implementing the VMS module, on the republic day at Deoghar jail premises. The Jail Superintendent Dr. Smt. Rupam Prasad among others was also present on the occasion.

The PMS software has been successfully implemented at the district jail, which has more than five hundred prisoners at present. The PMS / VMS Project is being implemented by NIC Jharkhand, across various jails in the state in coordination with the Department of Home (Jails), Govt. of Jharkhand.

Prashant Belwarier, Jharkhand



Sh. N K Srivastava, inaugurating the VMS module at Deoghar, Jail



Hon'ble CM, HP with the Award Team

National eGovernance Award for HIMPOL

The HIMPOL (Himachal Pradesh Police Web Portal) project of HP Police designed and developed by the NIC has won the Bronze Icon Award under Outstanding Performance in Citizen Centric Delivery category in the 12th eGovernance Conference at Goa on 12th and 13th of February 2009. The IG, Police and SIO, NIC HP received the Award. Prof. Sh. Prem Kumar Dhumal, Hon'ble CM, HP presented the Award certificates to the concerned officials in a simple function at Shimla.

HIMPOL is a Web-based software that may be accessed globally which has been designed and developed by National Informatics Centre (NIC) HP using latest technology. The major online services available on the portal include Online Complaints/Information/FIR, Online Traffic Challan System and Content Management System (CMS).

The portal is available at <http://hppolice.nic.in> and it has major administrative impact in the functioning of the Police Department. There is transparency in the functioning and better monitoring of activities. Besides increasing efficiency, the gaps have been eliminated. It has social impact too because the quality of public services has increased which are available from the comfort of home. The procedures have been simplified and available round the clock from any location.

Ajay Singh Chahal, Himachal Pradesh

State Level Workshop on Plan Plus conducted at NIC Uttarakhand

Two days State Level workshop on web-based Plan-Plus Software (Backward Region Grant Fund-BRGF) has been conducted by NIC Uttarakhand State Unit at Uttarakhand Institute of Rural Development, Rudrapur during 18th-19th February 2009. The purpose of this workshop was to train the district level officers on the software, who in turn will act as master trainers for their respective district officials and will implement the software at district level. This web based software can be used as a tool for effective planning at grass root level.

The technical and hands on sessions were conducted by Mrs. Manie Khaneja, TD and Mrs. Padma Laxmi, SSA from NIC-Hqrs along with officials from NIC-Uttarakhand State Unit. The Participants includes District Panchayati Raj Officers (DPROs) of three BRGF districts, officers from District Rural Development/planning Department, officials from Technical Support Institution and District Informatics Officers/Associates of concerned three and host districts.



Mrs. Manie Khaneja, TD (NICHQ) addressing the participants during workshop

Rajesh Goyal, Uttarakhand



Project Coordinator Sh. Saleem Khan addressing Systems Officer of e-Courts

Five day Training Program under e-Courts Project held for Systems officers of J&K at Jammu

A five-day Training Program from 16th to 20th of February 2009, under e-Courts project was held for the newly selected Systems Officers of J&K at the High Court of J&K Judicial Academy, Jammu. In all, 22 Systems Officers for the 22 districts of J&K and 2 Senior Systems Officers selected for High Court, Jammu and Srinagar wings, participated in the training program.

On the first day, Sh. Saleem Khan, PSA. and State Project Coordinator addressed the participants and briefed them about the Project Profile, Salient features, Objectives, and Application Areas, Roles and Responsibilities, Reporting mechanism, Site Preparation guidelines as well as the expectation from the Judiciary. Sh. Kiran Koul, SSA and OIC NIC Center, High Court at Jammu briefed the participants about the need for regular updating and monitoring of the project activities through the website. In the concluding session on the last day, the Central Project Coordinator, Raja Shujat Ali Khan (Registrar, Rules) addressed the participants and expressed hope that they would fully use their skills in implementing the project at the Subordinate Judiciary level.

Jit Raj, Jammu & Kashmir

CollabCAD Training & Support Centre at IET, Indore

The first ever CollabCAD Training & Technical Support Centre was inaugurated by Dr. Bhagirath Prasad, Vice Chancellor, Devi Ahilya University, Indore on 14th January 2009 at Institute of Engineering & Technology (IET), Indore, Madhya Pradesh. Dr. Ashesh Tiwari, HOD, Dept. of Mechanical Engineering welcomed the gathering on the occasion with a key note address and emphasised the usefulness of the CollabCAD Software for the Faculty and the Industries. Vice Chancellor appreciated the efforts of setting of NIC in CollabCAD Centre at Devi Ahilya University. Dr M. Chandwani, Director, IET, Indore explained briefly about the theme of the program and then the MoU was signed between NIC & IET, Indore for setting up of a CollabCAD Training Centre at IET, Indore. Later Sh. K.S. Nagesh Technical Director, NIC delivered a speech and explained the purpose of setting of the CollabCAD Training Centre at IET. He briefly explained various features of the CollabCAD Software and the utilities of Open Source Solutions used in developing CollabCAD. Dr N. Sohani, Associate Professor, IET, concluded the program by vote of thanks.



Dr. Bhagirath Prasad, VC, addressing at the inauguration program

K.S. Nagesh, NIC

For latest and up-to-date news and information about e-governance activities across the Country,

Visit Informatics Newsonline

<http://informatics.nic.in/newsonline>

Upcoming ICT Events

The Fourth International Conference on Internet and Web Applications and Services (ICIW)

May 24th -28th May 2009

Venice, Italy

<http://www.iaria.org/conferences2009/ICIW09.html>

6th Annual European Semantic Web Conference

May 31st - 4th June 2009

Heraklion, Greece

<http://www.eswc2009.org/>

iGov Global Exchange

June 15th -19th June, 2009

Singapore

<http://www.igovexchange.com/>

e-Gov India 2009

August 4th - 6th August

India Expo Centre, Greater Noida, India

<http://www.indobase.com/events/details/egov-india-2009-2055.php>

Eighth international EGOV conference 2009

August 30th - 2nd September

Johannes Kepler University of Linz, Austria

<http://www.egov-conference.org/egov-2009>

3rd International Conference on e-Democracy

September 23rd -25th September

Athens, Greece

<http://www.e-democracy2009.gr/index.php/home.html>

Land Record Computerisation: An Innovative Approach to Management

Computerisation of Land Record (CoLR) was initiated by Ministry of Rural Development, Government of India. Latest tools of Information Technology such as Geographical Information System (GIS), Cadastral mapping, Photometry, Electronic Total Station (ETS), Global Positioning System (GPS) Digitalization, Biometrics and others have revolutionize the CoLR. It is expected that CoLR will not only be beneficial for the common man but also prove a backbone for the development of agriculture based India.



Mantosh Chakraborty
Sr. Technical Director
mantosh@lbsnaa.ernet.in



Azad Singh
Sr. System Analyst
azadsingh@lbsnaa.ernet.in

The Centrally Sponsored Scheme on Computerisation of Land Record (CoLR) was started in 1988-89 with 100% financial assistance as a pilot project in eight Districts of the states such as Rangareddy in Andhra Pradesh, Sonitpur in Assam, Singhbhum in Bihar, Gandhinagar in Gujrat, Morena in M.P., Wardha in Maharashtra, Mayurbhanj in Orissa and Dungarpur in Rajasthan. The objective was to remove the problems pertaining to manual systems of maintaining and updating of Land Records and to meet the requirements of various groups of users. This project was initiated by Ministry of Rural Development, Government of India.

Objectives

The main objectives of CoLR are Computerisation of ownership and plot-wise details for issue of timely and accurate copy of the Record of Rights (ROR) to the Land Owners, store the records with latest digital technology for long time, provide fast and efficient retrieval of information both graphical and textual, provide database for agricultural census.

Need of CoLR

Land records books like **Khasra Girdavari**, **Khatauni**, and **Jamabandi** etc. maintained by Patwari, the revenue official at village level, need updating from time to time. These books are being used extensively along with land acquisition and litigation generating voluminous paper to serve the farmers. The storage of these documents is prone to natural disaster like fire, flood, earthquake, loss or

damages due to white ants etc. Therefore, land records and related documents need to be electronically documented.

Evolution of Computer in Land Records' Management

With the launch of computerisation of land records in eight pilot districts in 1988-89 and its further extension to other districts in various states of the country needed an urgent review of the process for further modification and thorough actions. The scheme was reviewed in 1993-94 and it was observed that States were finding it difficult to sustainability of project due to non-availability of skilled man power, hardware maintenance. So, it was decided to use the infrastructure, manpower and network of National Informatics Centre (NIC). NIC upgraded its district centers with latest hardware and software and states were requested to allocate one room near NIC District Centre to start data entry operation.

The project is being implemented in collaborative manner by Ministry of Rural Development (MoRD) & NIC. MoRD provides funds to states for data collection, data entry, site preparation etc. and NIC is providing technical support, software development, training etc. For this purpose a data entry module was developed in DOS / dBase or UNIX / FoxBase by NIC. To update, verification and validation of data, NIC equipped its district centres with appropriate hardware and software. As the technology has changed, NIC has also upgraded its hardware, networking and software to new GUI based environment.

Technologies used in CoLR

Some technologies such as Relational Database Management System (RDBMS), FoxPro, Visual Basic, Oracle, SQL Server are being used for computerisation. Some of the important tools which are frequently used in CoLR are:

- ♦ **Geographical Information Systems (GIS):** GIS may be viewed as integration of spatial and non-spatial data for decision support system. There are two formats used by GIS systems to store and retrieve geographical data i.e. **Raster** and **Vector**. GIS tools can play a major role in different types of land accounting, monitoring, procurement, utilization and infrastructure development.

GIS is used to link electronic documents and digitized maps of the area to generate the true Geographical Information System and Electronic Document Management System.

- ♦ **Cadastral Mapping:** A cadastral map is a map showing boundaries and ownership of land. The cadastral maps show the details as Survey District Names, Block Numbers (within each Survey District), Certificate of Title numbers, positions of existing older structures, government described run hold section and/or lot numbers and their respective areas, adjoining and adjacent street names, selected boundary dimensions and references to prior founding maps.
- ♦ **Electronic Total Station (ETS) & Global Positioning System (GPS):** The introduction of ETS technology augurs a revolutionary change in the agriculture history of the state. A land holder could now obtain a floppy of his land holdings from the provincial record room and reserve it for posterity and ready reference without even having to go to lower administration.

The **Global Positioning System (GPS)** is a burgeoning technology, which provides unequalled accuracy and flexibility of positioning for navigation, surveying and GIS data capture. The GPS NAVSTAR (Navigation Satellite Timing and Ranging Global Positioning System) is a satellite-based navigation, timing and positioning system. The GPS provides continuous three-dimensional positioning 24 hours a day throughout the world. The technology seems to be beneficiary to the GPS user community in terms of obtaining accurate data up to about 100 meters for

navigation, meter-level for mapping, and down to millimeter level for geodetic positioning.

- ♦ **Remote Sensing:** In this Technology, data is collected about the earth without taking a physical sample of the earth's surface. The energy reflected from the earth is collected by the sensors. The collected information can be used as a digital image or as a photograph. Generally these sensors are mounted on a satellite, or on a plane or other airborne structure. Basically there are two types of sensors: passive sensors and active sensors.
- ♦ **Image Processing:** Image Processing is a technique to manipulate the digitized data from an image using various mathematical operations. Generally this is done using a computer, to create an enhanced image which is useful for analysis purpose and also soothing to a human eye. There are three basic functions of an image processing- Image Pre-Processing, Image Enhancement, Image Classification

Technology at user end: The technologies viz. Simputer, KIOSK & Smart Card, Biometrics being used at user end.

Future Vision

Future vision of the CoLR is to create a transparent, efficient and effective Land record delivery system. In the present system, records specific to the Land Owner are not open for scrutiny which results in manipulation and favoritism. The present scenario of Land Record Management System is specific to state. A centralized management system will aid in analyzing and monitoring the Land Records for the country as a whole in the near future. It will lead to the standardization in the maintenance of records and implementation of Land Record Acts issued by Government of India in uniform manner. The Government of India has already announced the National e-Governance Plan (NeGP), in which Land Record is one of the Mission Mode Project.

It was really fascinating to witness the management of Land Records through effective and meaningful deployment of Information technology infrastructure. The availability of Land plays a vital role in the development of an area. As the technology is rapidly changing, there is a need to incorporate the latest ICT tools for prompt and effective mechanism to manage the Land Record System. GIS, GPS, Remote Sensing, Simputer etc technologies have great potential to simplified Land Record Management System which can serve as multipurpose administrative tools. 

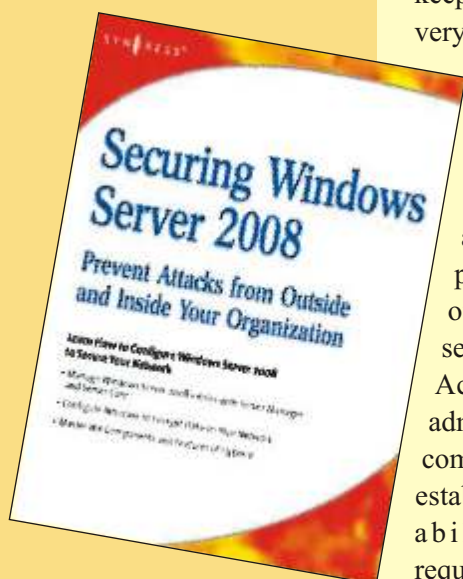
Securing Windows Server 2008 - Prevent Attacks from Outside and Inside Your Organization

The author, through this book, describes new technologies and features in Windows Server 2008, such as improvements to networking and remote access features, centralized server role management, and an improved file system. The book is of immense help to system administrators as it provides a comprehensive way to keep all systems managed, secured, and recoverable.

Title - Securing Windows Server 2008 - Prevent Attacks from Outside and Inside Your Organization

Author - Aaron Tiensivu

Publisher - Syngress.



Vivek Verma
Regional Editor, Informatics
vivek.verma@nic.in

Windows Server 2008, heralded as 'the most secure Windows Server ever', offers an assortment of features, new or modified, like Active Directory, Branch Office, Core Infrastructure, High Availability, High Performance, Identity and Access, Internet Information Services 7.0, Presentation Virtualization, Security and Policy Enforcement, Server Management, Virtualization with Hyper-V and Storage and Print Solutions. However, in order to use these grand features fully, system administrators and security professionals must install, configure, monitor, log and troubleshoot a dizzying array of new features and tools designed to maintain the integrity of their network servers and keep them secure. This in itself is a very big task considering the rate at which it is attacked by malicious hackers.

This book is the comprehensive guide needed by system administrators and security professionals to master seemingly overwhelming arsenal of new security tools including: Network Access Protection, which gives administrators the power to isolate computers that don't comply with established security policies. The ability to enforce security requirements is a powerful means of protecting the network; Enhanced solutions for intelligent rules and policies creation to increase control and protection over networking functions, allowing administrators to have a policy-driven network; Protection of data to ensure it can only be accessed by users with the correct security context, and to make it

available when hardware failures occur; Protection against malicious software with User Account Control with a new authentication architecture; and Increased control over your user settings with Expanded Group Policy - to name just a handful of the new security features. In short, Windows Server 2008 contains by far the most powerful and complex suite of security tools ever released in a Microsoft Server product.

The book provides system administrators and security professionals with the knowledge they need to harness this power. It describes new technologies and features in Windows Server 2008, such as improvements to networking and remote access features, centralized server role management, and an improved file system. It outlines steps for installing only the necessary components and subsystems of Windows Server 2008 in your environment. No GUI needed. It describes Windows Server 2008's security innovations, such as Data Protection using BitLocker facility, Network Access Protection, Federated Rights Management, and Read-Only Domain Controller. It also includes coverage of monitoring, securing, and troubleshooting Windows Server 2008. It covers Microsoft's Hyper-V virtualization technology, which is offered as an add-on to four of the eight versions of Windows Server 2008 and as a stand-alone product. The book nicely explains fine tuning and monitoring of Terminal Services to ensure optimal usage of network resources and enhancing user experience while accessing remote applications. 