



Rajeev Chawla
Secretary, e-governance,
Govt. of Karnataka

Karnataka: IT for common man

EVOLUTION: How is Karnataka taking its e-governance initiatives to its people?

RAJEEV CHAWLA: Karnataka's IT policy focuses on using e-governance as a tool and delivering a government that is more pro-active and responsive to its citizens. The government's

Millennium IT policy, Mahithi, emphasizes the importance of taking IT to the common man. Several efforts for implementing government projects using electronic means are being carried out, under its IT policy. The state has implemented and will be implementing several e-governance projects.

EVOLUTION: What are the new e-governance projects in the pipeline?

RAJEEV CHAWLA: We are planning several projects. The first is State Wide Area Network (WAN) and the estimated cost of the project is Rs. 170-crore. The Centre is expected to support the project. Simultaneously, we are working on BangaloreOne, which will be launched soon.

With this service, people can use a number of utility services online anywhere, anytime. We are also working on Rural Digital Services to offer value-added services, including video-conference, to citizens across the state and setting up VSAT-based network. STPI Bangalore is being appointed as IT consultant for the project. BangalorePlus - extended version of Bhoomi is also in the pipeline.

EVOLUTION: What is the status of Bhoomi today? What are the extended features in the project?

RAJEEV CHAWLA: In the final phase of Bhoomi, we are in the process of creating a State Data Center (SDC) where the records of all the 700,000 agriculture farmers are available. This database can be shared with the franchises. Once the SDC is available, online connectivity would be provided to financial banks, judiciary courts and even to franchisees. The SDC, which will be up and running in one or two months, would actually revolutionize the way people access information. By Nov. 1, 2004, the SDC is expected to be ready for functioning. ○

IT in Karnataka

Karnataka has always been a proactive state, which has today made it one of the most sought after IT destination in the country. In Karnataka as well as India, Bangalore takes the lead as the most preferred IT destination for its year-round salubrious climate, excellent social, education and health facilities.

Ten percent of the Indian Graduates are produced in Karnataka, which has historically been a place for technology and R&D based institutions in India. The state also boasts of one of the best available IT infrastructure in the country. STPI-B and the government of Karnataka have now taken a lead in spreading the IT revolution across the state.

Key Initiatives

- Introduce engineering colleges by private participation
- Introduce Technological University for introducing uniform curriculum
- Introduce IT Policy for the promotion of IT industry
- Start IIIT, Bangalore
- Start STPI Bangalore in 1991 ○

KEY CONTACTS

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Bangalore: Largest IT employer

The city holds 1.60 lakh technology professionals working in the IT and ITES-BPO sectors



Bangalore is the largest IT employer in one place globally. Once-sleepy city, which was known as a "pensioner's paradise", is regarded today as "India's Silicon Valley" - a technology hub that contributes 36% of India's total software exports and ranked *numero uno* in holding largest number of technology employees in one city worldwide with 1.60 lakh employees, says M S Shankaralinge Gowda, Secretary,

Department of IT & BT, Government of Karnataka.

AT A GLANCE

Software Exports (2003-04)	: Rs. 18,100-CR (US\$4.2 b)
No of Employees	: 1.60 lakh
No of IT Companies	: Over 1,000
No of ITES-BPO Companies	: Over 120

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EVOLUTION

GOVERNMENT ON DEMAND

Powered by CIOI & IBM

September 2004

Issue: 01, Vol: 01

Message



With this, we are happy to join the government's mission - eIndia, building e-governance for the 21st century. The country, which has already witnessed the computerization of the government functions at the state and central level, is all set to revolutionize, a few months from now, the way citizens access information and services. Every year, significant resources to the tune of about Rs 2,500-crore go into implementation of e-governance projects in India. The National Action Plan on e-governance has an ambitious outlay of over Rs 12,000-crore involving public and private investments

Contents

Lead Story	2
E-governance evolution	
India Buzz	3
Powering responsive governance	
Case Study	4
Empowering farmers through Agmarknet	
E-learning	6
IBM's Kidsmart to address social needs	
Linux News	7
President calls for open-source software	
State-In-Focus Karnataka	8

Mission eIndia: Building e-governance

We take pride in introducing EVOLUTION, a monthly newsletter focusing on e-governance. Its prime objective is to promote the best and successful practices of e-governance initiatives in various states in the country, and share the knowledge resources, including experiences and challenges among the IT community in the government.

over the next four years. Union IT Minister Dayanidhi Maran has already announced his priorities and agenda making the country as 'Great IT Nation'.

The inaugural issue features Maran's agenda, a case study on Agmarknet and focus on Karnataka among others. We welcome your feedback on improving the newsletter.

- Editor

FrontPage

I plan to make India a global hub for outsourcing skilled manpower in the IT sector

Union IT Minister Mr Dayanidhi Maran recently announced a 10-point agenda to boost Information Technology and Telecommunications sectors in the country. Apart from revamping the telecom policy, his dream is to make India a "Great IT nation." His agenda helps the country, strengthening its position in the Information Technology and Telecommunications and building e-governance for the 21st century.

Achieve convergence of information, communication and media technologies: Maran will expedite the convergence of technologies and prioritize PC penetration, thereby bringing cyber connectivity to every citizen.

Bring about transparency in administration: Maran plans to make government functioning more citizen-centric. Maran will stress on e-governance and quick implementation of a national e-governance plan.

Broadband connectivity: Maran says he will look into providing broadband connectivity to all, at the most reasonable prices.

Next generation mobile wireless technologies: "I plan to leapfrog from the current generation of mobile telephony to the next 4G. India is currently using the technology of GSM (2.5 G) and CDMA for mobile telephony.



The 3G standard has been evolved, but has not proved cost-effective. I therefore plan to leapfrog this generation and develop 4Gtechnology. We will also set up a national Center for Excellence (CoE) in this area," he says.

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E-governance evolution



Citizens of India always have taken pride in their government "of the people, by the people and for the people." But as the nation's population swelled, with small towns becoming large cities, and urban metros becoming cosmopolitan or megalopolises, the concept of a personalized government, even at the state and local level, became less of a reality. The dawning of the computer age, however, brought with it the hope of providing a more efficient government and reconnecting individuals to government representatives and services.

E-governance promised to use technology to offer more efficient, accurate and responsive management of cities, states and the nation, as a whole. As the concept evolved and the implementation of new technology increased, the definition of e-governance expanded to include a variety of inter-related tasks, functions and services.

E-governance now encompasses delivery of public services

through the Internet, as well as advances in utility technology and other innovative applications that enable once disparate public agencies to connect via wire. Citizens across India now log on to state and local government web sites to access wide range of information everything from statistics to public records. Citizens also go online to pay fees and taxes, offer suggestions and complaints, and even check out governmental budget statements.

Within governments, varied agencies now interconnect, share information, respond more efficiently to emergencies, and quickly and efficiently handle massive amounts of paperwork that once bogged down services that should have been quick, accurate and accessible. While this advanced technology is itself remarkable, the real benefit of e-governance ultimately comes in the form of happier constituents, better-informed citizens and safer communities. ○

I plan to make India a global hub...

Contd... from Page 1

National Internet Exchange and Indian Domain Name: Maran plans to connect all ISPs in India to a national Internet exchange in order to achieve efficient Internet traffic routing, cost reduction and improvement in the quality of service for the Internet users in India. His aim is to bring about improvement in Indian Internet Domain Name with a greater market focus to proliferate the Internet. He will encourage multinational companies to host their mirror sites in India and Indian enterprise to host sites to promote business and trade in India.

Migrate to new Internet Protocol IPv6: Worldwide the new IPv6 is being implemented on the Internet to accommodate increased number of users and take care of security concerns. Maran plans to bring about migration to IPv6 in India by 2006.

Security & Digital Signature: Maran will concentrate on Cyber Infrastructure Protection. All efforts shall be made to promote the use of digital signatures in the financial, judiciary and education sectors.

Media Lab Asia: Maran plans to ensure that the Media Lab Asia program focuses on the following areas:

- Providing seamless communication connectivity to rural areas and promoting value-added services and micro enterprises to double the village GDP in a couple of years.
- Extend quality healthcare services to remote areas using the technologies of telemedicine and Internet access.
- Promote development and availability of low-cost PCs and communication access devices to increase Internet penetration 10-fold in a few years.

Language computing: Maran's plan is to accelerate dialogue with state governments, linguists, R&D labs and industry for increased deployment of language computing solutions in government, industry and the society at large.

Outsourcing skilled manpower and R&D thrust: Maran plans to make India the world's hub for outsourcing skilled manpower in the IT sector. ○

Governments adopt IBM and Linux



Governments around the world are moving rapidly to open computing to drive economic development and provide citizens with easy access to the latest secure technology, IBM said at Linux World.

IBM announced that it is working with India's National Informatics Center (NIC) to deliver open solutions to the country. NIC is a premiere consulting organization of the Government of India in the field of Informatics Services and Information Technology applications. IBM also said that the US Army, as well as the states of Hawaii and Oklahoma is implementing IBM Linux-based solutions.

"India should be a Net giver to the open community," said Dr Deepak Phatak. "The Government of India sees open computing as having the potential to drive economic development and I believe that information technology can spread to smallest of Indian towns and villages only through open standards." Dr Phatak is one of the most renowned academicians in India and a leading visionary on Linux and

open computing.

For the US Army, IBM will deploy a massive Linux-based supercomputer that is slated to be among the top ten fastest Linux-based supercomputers in the world. It will be the largest Linux supercomputer in use by the military to date. The powerful 10 teraflop system will be installed at the Army Research Laboratory Major Shared Resource Center in Aberdeen, Maryland. Its purpose will be to speed up the research and development of advanced military systems.

"This increase in computing capability will give DoD scientists and engineers the ability to solve complex, mission-critical, physics problems in a time-frame that can provide the data necessary to better assist our staff in solving some of our nation's most complex defense challenges and solutions," said Charles J Nietubicz, Director of the ARLMSRC.

The State of Hawaii

The State of Hawaii is facilitating access to its financial applications, managed by its Department of Accounting and General Services, to provide state employees with a more detailed and timely financial snapshot of budgets, revenues and expenditures. The IBM solution is designed to help the State of Hawaii benefit from software cost savings and stability by using DB2 and Linux as its strategic database with a front-end gateway based on WebSphere Application Server.

The State of Oklahoma

The State of Oklahoma, Department of Human Services, is using Linux on an IBM eServer zSeries 900 mainframe to manage critical functions across the state such as Child Welfare services, including child abuse cases and other high impact areas that require immediate access to information. ○

Indian President calls for open-source Defense software

India's leader has urged his country to become self reliant in its quest for cybersecurity using non-proprietary platforms



In another public-sector boost to open-source software, India's President, Dr A P J Abdul Kalam, called for his country's military to use non-proprietary technology to ward off cybersecurity threats.

"Software maintenance and software upgrade is an important issue for Defense," Kalam said at a meeting of Indian Navy's Weapons and Electronic System Engineering Establishment in New Delhi recently.

Without naming any proprietary software products, the President asked Defense engineers to develop and implement on open platforms.

Kalam, a former head of India's Defense Research and Development Organization (DRDO) and architect of the guided missile program, has been a supporter of open-source software. Under the Indian constitution, the President is also the supreme commander of the armed forces -- Army, Navy and Air Force.

Linux, an open-source operating system, has been winning support from government leaders and local authorities in some countries. The thrust of Kalam's speech was that the nation should achieve self-reliance in software needed for critical weapon system development. ○

Empowering farmers through Agmarknet

National Informatics Centre (NIC) is a premier Government of India organization under the Ministry of Communication and IT. Headed by Director General Vijayaditya, the Centre is headquartered at New Delhi with branches all across the country. NIC offers a portfolio of services for government organizations, including IT consulting and infrastructure service. NIC undertakes strategic, national-level projects such as Agriculture Portal, National Identification Card, Passport, Community Information Centre (CIC), Customs & Immigration, Passport and Land Records, etc.

Challenges faced by NIC

- Government teams being the end-users of NIC
- Build and implement cost-effective solutions
- Implementation of solutions with multi-lingual features
- Implementation of the same solution with little variants across locations, primarily because of regional, political, and other similar factors
- Basic computerization/mechanization followed by process change due to resistance for change
- Creating IT solutions under strict government processes like tenders
- Remain technology and vendor-independent

Business need

The Indian agriculture industry is undergoing a sea change in view of the economic liberalization, globalization and the implementation of various reforms. Leaping strides in IT has contributed enormously to this metamorphosis. Developments in the ICT sector has thrown open national and international gateways, resulting in the formation of the 'Global Village'. NIC, in association with the Directorate of Marketing & Inspection (DMI), under the Ministry of Agriculture, has put in place a unique scheme termed Agriculture Marketing Information System Network (Agmarknet). Its objective is to link all agricultural produce markets in the country, along with the State



Agriculture Marketing Boards & Directorates, in order to enable effective exchange of information. The key beneficiaries of this project are the farmers, traders, market associations, government regulatory bodies and consumers that comprise the agriculture industry.

This farmer-centric project Agmarknet, has incorporated following objectives:

- To establish a nation-wide information network for speedy collection and dissemination of market information for its efficient and timely utilization
- To computerize market-related information from stocks to prices and other market functionaries including activities undertaken by the Agriculture Produce Market Committees, State Agriculture Marketing Boards and Directorates
- To ensure flow of regular and reliable data to producers, traders and consumers to drive maximum benefits from their transactions
- To increase the efficiency in marketing by upgrading the existing market information systems

Solution synopsis

A user-friendly software package called Agmark is developed to facilitate organization and transmission of market data. An information portal is developed to enhance interfacing between farmers and other beneficiaries. One of the major attractions, featured on the portal is the price-related data reports, flowing in from over 1000 produce markets. A plan is in place, to expand the network to 7000 markets. Enabling smooth execution in all the 1000 markets, is an IBM Lotus SmartSuite software consisting of the following features:

- Desktop-based application at each market to capture the data. The application has local language support. Basic office automation tools are provided at all markets.

- The data is fed into the system at each market in offline mode at the end of the day.
- The data is uploaded to a central site in batch mode through dial-up facilities.
- The central site further transmits the data to NIC for web-based dissemination.

"By collaborating and partnering with IBM, we are able to leverage the global experience and knowledge that IBM possesses, focus on the opportunity in the market and thus, benefit from it. This solution has helped increase awareness and facilitated the various functionaries such as farmers, traders, market associations, government regulatory bodies and consumers to gather on a single platform. This is one of the true e-governance projects in the country as the benefits are availed by the last mile, i.e. Farmers of India," says M Moni, Deputy Director-General, NIC.

Solution roadmap

The proposed solution roadmap has been envisaged as follows:

Phase- I focuses on deploying the existing functionality of Agmarknet, on AS IS basis, onto a new architecture. This architecture primarily addresses three main areas:

- Ensures the current functionality of application on 'AS IS basis, enables continuity and delivery of solution

By collaborating with IBM, we are able to leverage the global experience and knowledge that IBM possesses and focus on the opportunity in the market and benefit from it. This has helped increase the awareness and bring the various functionaries like farmers, traders, market associations, government regulatory bodies and consumers on a single platform. It is one of the true e-governance projects in the country as the benefits are availed by the last mile i.e. Farmers of India.

- M Moni
Deputy Director-General, NIC

keeping in line with the timing of proposed rollout plan

- Identifies some areas of enhancements in the existing system from a technology perspective
- Scalable and extendable to deliver the functionality and features envisaged in the roadmap for Agmarknet.

Phase II would primarily focus on setting up an Agriculture portal from the states' perspective with features such as local language software.

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Phase III would focus on setting up of e-markets, covering the entire functionality of markets and the integration of all the components and stakeholders of Agmarknet.

Indian agriculture witnesses rapid changes. The Agmarknet project is undertaken to initiate IT in agriculture and enable farmers to be a part of the IT revolution that is engulfing the country. In fact, it has already emerged as the "sun-shine" website for farmers to bargain better prices for their produce and marching -- ahead towards "becoming an e-commerce and e-business portal" in India. This "Digital development in rural areas" of India facilitates rural prosperity, rural empowerment, and a warehousing of data for development -- a step towards digital inclusion to foster rural enterprise in India. The roadmap would further require availability of proposed system on open standards.

Benefits to NIC

The improved communication system enables producers to learn of probable markets, where they can dispose their produce for better profits. Since implementing these changes, the customer has seen substantial savings due to increased productivity, reduced development costs and shorter development timeframes. The business elements, which have been enhanced by this on-demand solution are as follows:

- Business transformation - transforming an organization's strategy, processes, technology and culture by applying deep business process insight with advanced technologies to increase business productivity and enable flexible growth.
- Flexible Financing and Delivery Models - the delivery of business processes, applications and/or infrastructure on demand with usage-based charges around IT and/or business metrics. ○



Kiran Karnik
President, Nasscom

IndustrySpeak

"The states and Central governments together spent more than US\$950 million in 2002-03 towards IT projects. They are expected to spend more than US\$5-6 billion in 2007-08."

IBM's Kidsmart to address social needs

To provide computer education and training within the reach of disadvantaged children, IBM India is all set to include more teachers and schools in its on-going program titled "Kidsmart."

As part of its corporate community initiative, IBM India launched a training program for teachers working in schools during August in Chennai, where the initiative is already underway. Named "Teachers' Professional Development Program", the initiative is part of a country-wide program by IBM and would gradually expand to include more schools and teachers in Tamil Nadu.

Dharmendra Pratap Yadav, Deputy Commissioner for Education, Chennai Corporation, who inaugurated the program, lauded IBM's initiative in bringing computer literacy to pre-schools and primary schools across Tamil Nadu and India, particularly those which would otherwise not have the necessary resources for an initiative of this kind.

He says, "Research shows that a high-quality learning program, along with teacher involvement in a structured environment, is a valuable learning source."

The IBM program is a good example of how corporates can support and bring about change in the community." R Damodaran, Country Manager, Software Group, IBM India, says "the community-centric initiative focused on educational and leveraged the corporate's expertise in technology to address social needs. The professional development of teachers is a vital aspect of the program," he adds. ○



Kalam honors `India's best computer schools'

Navarachana Higher Secondary School, Vadodara, Gujarat is the national winner of the prestigious 2nd Computer Literacy Excellence Award for Schools 2003 while Meera Model School (Delhi) and Bishop Cotton Boys' School (Bangalore) have bagged the first and second runner-ups in the national awards, which were announced recently by the Ministry of Information Technology.

President Dr Abdul Kalam honored the best computer literate schools at national and state levels with the awards for their excellent work in attaining computer literacy, at the presentation ceremony held in New Delhi recently amidst the presence of principals and teachers from various schools in the country. The event, organized by the Ministry of Information Technology (MIT), was aimed at encouraging managements of the educational institutions in the private and government-aided and the government schools to impart quality IT education and accelerate computer literacy.

Congratulating the school managements for their excellent work, Dr Kalam called for making learning a children-friendly process. Apart from attracting children to schools, the education system should be able to inject creativity among the children. Also the aim of the education system should be to build character, human values, enhance the learning capacity through technology and build the confidence among children to face the future, said the President. ○

National Award Winners-2003

- ❖ Navarachana Higher Secondary School, Vadodara, Gujarat
- ❖ Meera Model School, Delhi
- ❖ Bishop Cotton Boys' School, Bangalore

National Consolation Award Winners-2003

- ❖ Space Central School, Andhra Pradesh
- ❖ Jawahar Navodaya Vidyalaya, Andhra Pradesh
- ❖ Kendriya Vidyalaya No.2, Bihar

Training program for IAS officers

National Institute for Smart Government (NISG) is conducting a unique training program titled "eGovernment for Smart Governance" for IAS officers beginning September this year.

The training for the first batch comprising 25 participants of the level of secretary and joint secretary from the Central and state governments will be held at Marri Chenna Reddy HRD Institute of Andhra Pradesh in Hyderabad from Sept. 20-24.

Its primary objective is to sensitize the senior policy makers on the principles of e-governance, to disseminate a correct understanding of the subject, and to impart working knowledge. ○

Powering responsive governance

The Parliamentary Standing Committee on IT has suggested that e-readiness by the states, departments and union territories should be undertaken annually to get them into the e-governance mindset

In order to promote e-governance initiatives in India, the Parliamentary Standing Committee on Information Technology has asked the Centre to complete the modalities to set up a Rs 1000-crore e-governance fund soon.

The Committee has also asked the Department of Information Technology (DIT) to approach the Planning Commission to seek additional resources to implement the national e-governance action plan, an important component of the common minimum program of the United Progressive Alliance government.

The Committee report states, "The Committee is concerned to note that the Planning Commission has approved only Rs 215-crore (for e-governance projects). As a result, the DIT would not be able to extend the network infrastructure up to the block level in the first 18 months as planned and will have to take it up in a phased manner."

The DIT had planned to strengthen the core infrastructure, including establishing a state-wide area network to cover the blocks and national/state-level data centres, promoting a common service delivery centre and replicating e-governance applications on a pilot scale. The DIT had proposed an outlay of Rs 630-crore for the year 2004-05 but got only Rs 230-crore. The department is an implementing agency and a program manager for coordinating different ministries.

The Committee has also suggested that e-readiness by the states, departments and union territories should be undertaken annually to get them into the e-governance mindset. The committee has also raised its concern over the non-implementation of the Planning Commission's advisory to the central ministries and departments to earmark 2-3 percent of their plan budget for program/schemes relating to IT. It has recommended that the DIT should closely monitor those ministries, departments and states that do not follow its advices. ○

IIT-M designs bilingual keyboard

Indian Institute of Technology, Mumbai (IIT-M) with the help of Media Asia Labs has designed a bilingual computer keyboard titled 'KeyLekh' based on Indic alphabetic structure. According to the institute officials, this is the first time that a keyboard based on Indic alphabet structure has been developed and introduced in the country, meaning a user should know how to type in Hindi and would not require to learn the keyboard settings. Any operating system supporting Unicode can use this keyboard without additional software or driver. With this keyboard on Devnagari script every common man will be able to use the PC with ease. ○

White House touts high-end computing in R&D budgets



The Bush administration has placed supercomputing and cyber infrastructure among its highest priorities for agency R&D efforts in fiscal 2006, which begins Oct. 1, 2005. In a memo, to Office of Management and

Budget Director Josh Bolten and John Marburger, Director of White House's Science and Technology Policy Office, asked officials to focus their 2006 budget requests on these two areas. ○

New E-governance head for UK



Ian Watmore, Managing Director of Accenture UK, has been appointed as the new head of e-governance for the UK. He will take up the new assignment in September. The head of e-governance is one of the biggest and most challenging IT positions in the UK today. The e-governance unit will work with departments

to deliver efficiency savings while improving the delivery of public services. ○

World Bank's job offer to bureaucrat



Randeep Sudan, Managing Director, Andhra Pradesh Technology Services, an enterprise of the Government of Andhra Pradesh, is likely to take up new assignment soon with the World Bank as senior

ICT specialist. The IAS officer of 1983 batch, known to be driving IT in Andhra Pradesh, has recently received offer from the World Bank. ○

IBM and Red Hat achieve common criteria certification

In a move expected to further speed the adoption of Linux by governments, IBM and Red Hat announced that Red Hat Enterprise Linux 3, Update 2 on IBM eServers has achieved Controlled Access Protection Profile compliance under The Common Criteria for Information Security Evaluation (CC), commonly referred to as CAPP/EAL3+. The new level of Red Hat security is available across the IBM eServer product line, with Red Hat Enterprise Linux WS on xSeries, and Red Hat Enterprise Linux AS on xSeries, iSeries, pSeries, zSeries as well as Opteron-based systems. The Common Criteria is an internationally recognized ISO standard (ISO/IEC 15408) used by the Federal government and other organizations to assess security and assurance of technology products. ○