E - GOVERNANCE

CASH OUT OF TRASH
पर्यावरण वहव्यहम्

E-Governance

What is E-Government?

E-Government i.e. Electronic Government is the use of Information and Communications Technology (ICT) to run or carry on the business of the Government of a Country.

However the term E-government is misleading, as it implies an electronic substitute for the physical government. Electronic substitution of a government is not possible as Government is an unit of people coming together to administer a country.

A Government is a group of people responsible for the administration and control of a Country/State. It involves people like the Heads of States, Ministers, Government Employees, etc. It also involves public participation. So electronic substitution for a Government is not possible. Therefore, E-Government may only refer to a Government using in conducting its business.

E-Governance - What does it mean?

The term 'Governance' is wider than 'Government'. Governance may be an activity of governing/controlling a country by its Government, controlling of an organisation or a company by its CEO or Board of Directors or controlling of a house hold by the head of the house, Accordingly E-governance may also involve governing of a country, organisation, company or a household, however with the help of Information and Communication Technology (ICT).

But when we talk of E-Governance in the popular parlance we only refer to the governing of a Country/State using ICT. E-governance therefore means the application of ICT to transform the efficiency, effectiveness, transparency and accountability of exchange of information and transaction:

1. between Governments,
2. between Government agencies,
3. between Government and Citizens
4. between Government and businesses

E-governance also aims to empower people through giving them access to information.

Scope of E-Governance

Governance is all about flow of information between the Government and Citizens, Government and Businesses and Government and Government. E-Governance also covers all these relationships as follows

A.Government to Citizen

Government to Citizen relationship is the most basic aspect of E-Governance. In modern times, Government deals with many aspects of the life of a citizen. The relation of a citizen with the Government starts with the birth and ends with the death of the citizen. A person transacts with the Government on every corner of his life. May it be birth registration, marriage registration, divorce or death registration.

The G2C relation will include the services provided by the Government to the Citizens. These services include the public utility services i.e. Telecommunication, Transportation, Post, Medical facilities, Electricity, Education and also some of the democratic services relating to the citizenship such as Certification, Registration, Licensing, Taxation, Passports, ID Cards etc.

Therefore E-Governance in G2C relationship will involve facilitation of the services flowing from Government towards Citizens with the use of Information and Communications Technology (ICT).

1.E-Citizenship- E-Citizenship will include the implementation of ICT for facilitation of Government Services relating to citizenship of an individual. It may involve online transactions relating to issue and renewal of documents like *Ration Cards, Passports, Election Cards, Identity Cards*, etc. It will require the Government to create a virtual identity of every

citizen so as to enable them to access the Government services online. For the same, Government would need to create a Citizen Database which is a huge task.

2.E-Registration - E-Registration will cover the online registration of various contracts. An individual enters into several contracts during his life. Many of these contracts and transactions require registration for giving it legality and enforceability. Such registration may also be made ICT enabled. E-registration will help to reduce a significant amount of paperwork.

3.E-Transportation- E-Transportation services would include ICT enablement of services of Government relating to Transport by Road, Rail, Water or Air. This may involve online –

1. booking and cancellation of tickets,

2. status of vehicles, railways, boats and flights,

3. issue and renewal of Driving Licences,

4. registration and renewal of vehicles,

5. transfer of vehicles,

6. payment of the fees of licences,

7. payment of fees and taxes for vehicle registration,

4.E-Health- E-Health services would be ICT enablement of the health services of the Government. Under this interconnection of all hospitals may take place. A patient database may be created. A local pharmacy database may also be created. All this can be done.

5.E-Education- E-Education would cover the implementation of ICT in imparting of education and conducting of Courses. Distant as will as classroom education will be facilitated with the use of ICT. Use of internet can reduce the communication time required in Distance education; Internet may also help in conducting online classes.

6.E-Help- E-Help refers to facilitation of disaster and crisis management using ICT. It includes the use of technologies like internet, SMS, etc. for the purpose of reducing the response time of the Government agencies to the disasters.NGOs help Government in providing help in situations of disasters. Online information relating to disasters, warnings and calls for help can help the Government and the NGOs coordinate their work and facilitate and speed up the rescue work.

7.E-Taxation- E-Taxation will facilitate the taxing process by implementing ICT in the taxing process. Online tax due alerts and online payment of taxes would help transact faster.

B.Citizen to Government
Citizen to Government relationship will include the communication of citizens with the Government arising in the Democratic process like voting, campaigning, feedback, etc.

1.E-Democracy- The true concept of Democracy includes the participation of the citizens in the democratic and governing process. Today due to the increased population the active participation of the citizens in governing process is not possible. The ICT can help enable the true democratic process including voting, public opinion, feedback and Government accountability.

2.E-Feedback- E-Feedback includes the use of ICT for the purpose of giving feedback to the Government. Lobbying is pursuing the Government to take a certain decision. Use of ICT can enable online feedback to the Government, online debates as to the Government services.

C.Government to Government
G2G relationship would include the relationships between Central and State Government and also the relationship between two or more Government departments.

1.E-administration- E-administration would include the implementation of ICT in the functioning of the Government, internally and externally. Implementation of ICT can reduce the communication time between the Government Departments

and Governments. It can substantially reduce paperwork if properly used. E-administration will also bring morality and transparency to the administration of Government Departments.

2.E-police- The concept of E-police is little different from Cyber-Police. Cyber Police require technology experts to curb the electronic/cyber crimes. E-police refers to the use of ICT for the purpose of facilitating the work of the Police department in investigation and administration. The concept of E-police includes databases of Police Officers, their performances, Criminal databases – wanted as well as in custody, the trends in crimes and much more. ICT can help reduce the response time of the Police department and also reduce cost by reducing paperwork.

3.E-courts- The concept of E-Court will include the ICT enablement of the judicial process. Technology may help distant hearing, online summons and warrants and online publication of Judgments and Decrees.

D.Government to Business

1.E-Taxation- Corporate sector pays many taxes, duties and dues to the Government. Payment of these taxes and duties will be made easier by E-Taxation. Online taxing and online payment of taxes can help reduce cost and time required for physical submission of taxes. ICT can also help crosscheck the frauds and deficiencies in payment, further bringing accuracy and revenue to the Government.

2. E-Licencing - Companies have to acquire various licences from the Government, similarly the companies have to acquire various registrations. ICT enablement of the licensing and registration can reduce time and cost.

3. E-Tendering - E-Tendering will include the facilities of online tendering and procurement. It will online alerts as to new opportunities of business with the Government and also online submission of tenders and online allotment of work. It will reduce time and cost involved in the physical tendering system.

Object of E-Governance

The object of E-Governance is to provide a SMARRT Government. The Acronym SMART refers to Simple, Moral, Accountable, Responsive, Responsible and Transparent Government.

S- The use of ICT brings simplicity in governance through electronic documentation, online submission, online service delivery, etc.

M -It brings Morality to governance as immoralities like bribing, red-tapism, etc. are eliminated.

A -It makes the Government accountable as all the data and information of Government is available online for consideration of every citizen, the NGOs and the media.

R -Due to reduced paperwork and increased communication speeds and decreased communication time, the Government agencies become responsive.

R -Technology can help convert an irresponsible Government Responsible. Increased access to information makes more informed citizens. And these empowered citizens make a responsible Government.

T -With increased morality, online availability of information and reduced red-tapism the process of governance becomes transparent leaving no room for the Government to conceal any information from the citizens.

These objects of E-Governance are achievable with the use of ICT and therefore the concept is very alluring and desirable.

E- Governance – Bringing technology to the village level

Villages provided with internet broadband connectivity and modern computer networking facilities under "E-gram - Vishwagram" scheme

Computerization of Land Records- Quick and transparent village administration through projects like E-dhara and E-Jamin

Facilities provided at village level enabling communication, global connectivity and information sharing, opening new avenues for the youth

Advantages of E-Governance
Following are the advantages of E-Governance

1.Speed– Technology makes communication speedier. Internet, Phones, Cell Phones have reduced the time taken in normal communication.

2. Cost Reduction – Most of the Government expenditure is appropriated towards the cost of stationary. Paper-based communication needs lots of stationary, printers, computers, etc. which calls for continuous heavy expenditure. Internet and Phones makes communication cheaper saving valuable money for the Government.

3.Transparency– Use of ICT makes governing profess transparent. All the information of the Government would be made available on the internet. The citizens can see the information whenever they want to see. But this is only possible when every piece of information of the Government is uploaded on the internet and is available for the public to peruse. Current governing process leaves many ways to conceal the information from all the people. ICT helps make the information available online eliminating all the possibilities of concealing of information.

4.Accountability– Once the governing process is made transparent the Government is automatically made accountable. Accountability is answerability of the Government to the people. It is the answerability for the deeds of the Government. An accountable Government is a responsible Government.
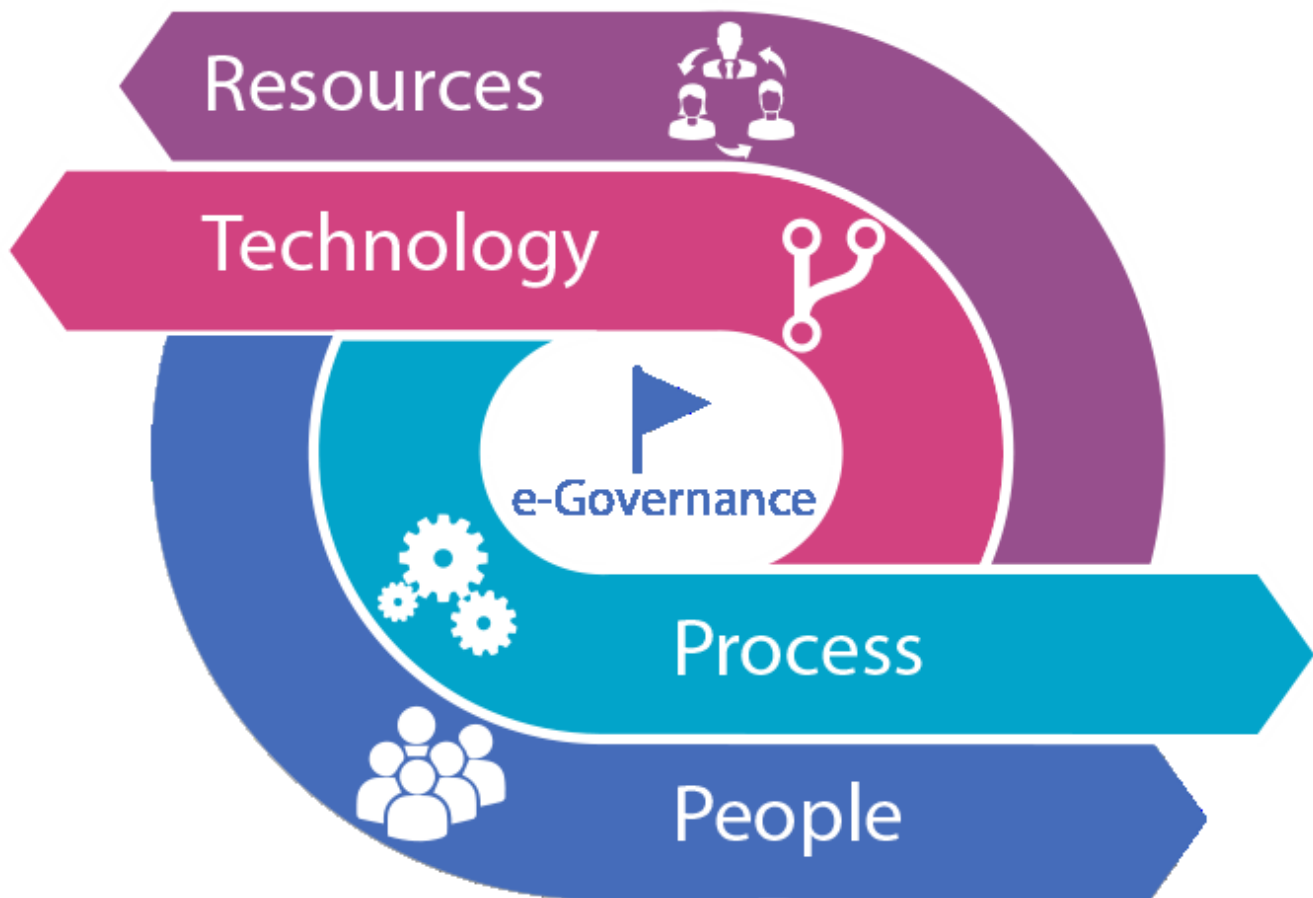
Aspects of E-Governance
1. Information Management
2. Identity and Access Management
3. Content Management
4. Standards Management
5. ICT Legal Framework

1. Information Management

Information management is gathering and storing at one place, the information relating to the Government and Governing process. It is the systematic arrangement/classification of information. If the information of the Government is gathered at one place without any arrangement or management, it would prove difficult for the users to find the required information. Managing information is an important aspect of E-governance. Information management addresses the issues like – How to provide? What to provide? Whom to Provide? When to provide? Where to provide? Why to provide?

The process of information management may further be divided into three aspects – (1) Database Management, (2) Indicator Management, and (3) Knowledge Management. Database Management involves bare compilation and organisation of data and information at one place. Indicator Management involves storing with the information the catch words, labels, tags, meanings and context relating to the information. Knowledge Management involves managing the skills and know-how of the employees/experts of the Government for benefit of the Government.

Information management is an integral aspect of E-commerce. It also proves essential for E-Governance. It helps transform the governing process in a business-like efficient and cost-effective process. Information management aims at reducing cost, improving performance, differentiating of products and services of Government, specialised/customised information, and citizen focus.

Information management involves following stages –

1.Gathering – gathering all the available information of the government
2.Creating – creating information which is lost or not available
3.Storing – storing the gathered information in one place
4.Accessing – accessing of stored information by the people
5.Distributing – distributing required information to the public
6.Ignoring – ignoring the information not publicly important
7.Discarding – discarding ignored and insignificant information
8.Updating – continuous updating information
9.Securing – securing the information with latest technology so as to give access to information to those who really require it.

2.Identity and Access Management

Identity management is a set of processes and infrastructure for the creation, maintenance and use of digital identities for the purpose of access to E-governance portals and the information on those portals. Well established Identity management system helps setup an Access management system. The object of Identity Management is to create scalable, extensible and secure standards based framework for identity data acquisition and storage.

Access management involves authentication of identity of the user and giving access to the Government and public information available online. Access management is necessary to give a secure access to information to the public. Securing of public information available online is very important due to recent online piracy and attacks on websites through hacking. E-governance would involve huge of sensitive public information up for grabs for the hackers of other countries. Further there are certain things which require to be accessed by only the Government officials. So online security of information is very necessary which can be done through Access management. Access management is only possible if there is an Identity Management system is already online and running successfully.

The identities can be classified as follows:(1) Citizens, (2) Employees, (3) Customers, (4) Organisations, (5) Agencies, (6) Partners, etc.

The process of Identity Management involves following stages

a)Citizen Request– The first stage is the Citizens' requests for creation of identities. This may be done physically by submitting forms and documents.

b)Verification– The second stage is to physically verify the identities by crosschecking various documents, photo identities, etc.

c)Assignment of identifier– The Government has to assign a unique identifier which may be a number or a username and password to every citizen so as to eliminate multiplicity of identities. Today according to the emerging technologies the identifiers may also be in the form of biometrics, digital certificates, smart cards, etc.

d)Storage of Identities in ID stores/databases – Once an identifier is assigned/username and password is created, the identities are stored in the identity stores.

The process of Access Management involves following stages:

a)Authentication– Once a user wants to access online portal, he will need to access it through the unique identifier assigned after registration. After the user enters the username and passwords or through any other authentication process like biometrics, digital certificates, etc. his access to the portal is authenticated.

b)Authorisation– Authorisation of user depends on the type the user belongs. The user may be administrator, Manager, Author, Creator, user, etc. A user will only be authorised to access the information. The Administrator is authorised to change the information.

c)Access Control– Based on the authorisation of the user, his access of information in various areas will be controlled. This will be based on the type of user, i.e. Administrator, user, etc.

d)Audit and Reporting– Audit and Reporting involves the monitoring the access of information by users, their authority and access rights. This helps in improving the access security and also the security of the information.

Advantages/Benefits of Identity and Access Management

a)Elimination of storage of duplicate identities

b)Interoperability of applications by enforcement of data standardisation

c)Single Sign in

d)Secure Access

e)Curbing unauthorised access

f)Increased Citizen participation

g)Improve performance of the Government Services

h)Improve Service Delivery

i)24x7 availability of Government services

3.Content Management

Content management is the process of organising, distributing and tracking information/data through a website over the internet. It helps to make users more knowledgeable or informed by offering instant access to correct information online. It deals with providing right information, to right people at right time.

Contents of a website can be divided as follows: Text, Graphics, Audio, Video, Diagrams, Links, etc. Managing this various type of content is important. It is necessary to decide where to provide text and where images and graphics.

Content management further involves:

a)**Web based publishing**– publishing webpages, documents, charts, graphs, etc online on a website;

b)**Format management**– following practise of fixed formats for webpages, text, graphics, audio and video;

c)**Revision**– involves continuous updating of information;

d)**Indexing**– creating indexes of the topics and subjects of which information is available on the website;

e)**Search**– providing search facility to users to find out exact data that user wants.

Object of Content Management

a)To Communicate Right Data to Right People at Right Time

b)To ensure that the contents are need based, relevant, up to date and accurate

c)To avoid duplication of content

Essentials of Content Management

a)Centralised storage – information must be stored centrally, i.e. at one place to make access easy and avoid complications of networking and computing;

b)Reviewing and Authentication of Contents – The contents of the website must be continuously reviewed and authenticated so as to maintain the authenticity of the data available on the website. It must also be done for providing relevant content/information on the website;

c)Access of data by the end user – Unless the user access the data published on the website, the whole effort is in vain.

4.Standards Management

ICT provides many ways to achieve E-governance. There are multiple formats to deal with webpages, text, graphics, audio, and video. However, as seen currently, there is no uniformity in the e-governance websites as to the use of formats. There are also various levels of technologies, basic and advanced. For e-governance, basic technologies are not sufficient because

of the security concerns of sensitive data/information. Therefore, e-governance websites have to maintain standards. Standards management involves further aspects as follows:

1.Network and information Security Standards

2.Meta data and data standards

3.Localisation and language technology

4.Quality and documentation standards

5.Technical standards

6.Web accessibility standards

E-governance at minimal cost and infrastructure

Strategies for E-Governance in India

1. To build technical infrastructure/framework across India
India lacks a full fledged ICT framework for implementation of e-governance. Complete implementation of E-governance in India will include building technical Hardware and Software infrastructure. It will also include better and faster connectivity options. Newer connectivity options will include faster Broadband connections and faster wireless networks such as 3G and 4G. The infrastructure must be built by Government, Private Sector as well as individuals. Infrastructure will also include promotion of Internet Cafes, Information and Interactive Kiosks. However while building technical infrastructure, disabled persons must also be considered. The technology implemented, shall incorporate the disabled persons.
2. To build institutional capacity
Apart from building technical infrastructure, the Government needs to build its institutional capacity. This will include training of Government employees, appointment of experts. Alongwith the Government has also to create an Expert database for better utilisation of intellectual resources with it. Apart from this, the Government has to equip the departments with hi-technology and has also to setup special investigating agency.
3. To build legal infrastructure

For better implementation of e-governance, the Government will need to frame laws which will fully incorporate the established as will as emerging technology. Changing technology has changed many pre-established notions; similarly the technology is growing and changing rapidly. It is important, that the Government makes laws which incorporate the current technology and has enough space to incorporate the changing future technology. These IT laws need to be flexible to adjust with the rapidly changing technology. Currently India has only the IT Act, 2000 which is mainly an E-Commerce

legislation. India has also modified many laws to include electronic technology, however it is not sufficient to cover e-governance completely.

4. To build judicial infrastructure

Overall technological awareness in current Judges is very low. The judiciary as a whole needs to be trained in new technology, its benefits and drawbacks and the various usages. The judiciary may alternatively appoint new judges with new judges and setup special Courts to deal with the matters relating to ICT. The Government can also setup special tribunals to deal with matters relating with ICT.

5. To make all information available online

The Government has to publish all the information online through websites. This can be facilitated through centralised storage of information, localisation of content and content management. The information of government is public information, therefore the citizens are entitled to know every piece of information of the Government, because the Government is of the People, by the People and for the People.

6. To popularise E-governance

Literacy percentage in India is alarming. The whole world is moving towards e-governance, but India still lacks in the literacy department. The people need to be educated and made e-literate for e-governance to flourish. There are very few e-literate people in India is very low. The Government needs to campaign for e-governance, increase people's awareness towards e-governance. Government can only encourage people to go online if it can make people feel comfortable with e-governance. This can be done through educating the people about the advantages of e-governance over physical governance. This can also be done through raising awareness of the leaders who can motivate the people to go online.

7. Centre-State Partnership

Indian setup is quasi-federal. Therefore Centre-State and inter-state cooperation is necessary for smooth functioning of the democratic process. This cooperation is also necessary for successful implementation of e-governance. This cooperation shall extend to Centre-state, inter-state and inter-department relationships. For the same the Government can setup a Central Hub like the current Government of India portal, for accessing the information of all the organs of the central government and also all the state government. The states can cooperate with the Centre to create a National Citizen Database.

8. To set standards

Finally it is important to set various standards to bring e-governance to the quality and performance level of private corporate sector. The Government of India is currently working on standards management and has various drafts prepared for the same. These standards include following: Inter-operability standards, Security standards, Technical standards, Quality standards. Government websites in India currently have no uniform standard. Many Government of Maharashtra websites differ in standards within even two of its webpages. There is no set standard as to quality of the information, document, the formats, etc. It is very important for the Government to set uniform national standards to be followed by all the Governments and agencies.

ROLE OF VARIOUS IT COMPANIES

IAP is one of the fastest growing player in the e-Governance sector in India. Over a short span of its operations in this domain, IAP has developed a track record of developing software applications for government organizations, consulting,

automation, rollout of e-Governance services projects to facilitate Government to Citizen (G2C), Citizen to Government (C2G), Government to Government (G2G), Government to Business (G2B), and Government to NGO (G2N) services.

The company has successfully delivered to 100+ state and central government agencies across the various stages of entire value chain in this sector through software solutions, product integration, and business solutions.

IAP has been engaged by government agencies on multiple projects for assignments varying from gap analysis, preparation of detailed project reports to development of software applications, enhancement of software applications, implementation, handholding, training, rollout etc. under various engagement models. IAP works very closely with various stake holders in the National e Governance Plan (NeGP) in the Department of Information Technology (DIT) and its various bodies and the stake holders at the various states levels

IT Solution Development Company:
Aplomb Technology™ has provided a vast array of innovative software services and e-business solutions including Web solutions, custom software/Web applications development, Migration Services, System Enhancement and Maintenance, Testing, Product Development & Supports and business process management tools world wide. Aplomb Technology™ is company based in Gujarat, India and spread across India, providing cutting-edge technology development in Business Process and Integration Solutions with SEO & SEM and Mobile Application Development services. Aplomb Technology™ has been catering successfully many international clients with long relationship. At Aplomb Technology™, we make sure proven technical expertise with maximum business; therefore, you may get desired benefit out of the box.

COMVISION INDIA

The company has executed some notable projects in e-governance arena, medium and large sized in the corporate and export sectors.

We also place technical manpower across Government set ups in India.

The projects executed by us in different sectors are listed below:

- TWINS (e-sewa)- e-Citizen Services
- Intelligent Transport - Toll Solutions
- e-Municipality NDMC
- Legal Cases Monitoring - Govt. Domain

ROLE OF IBM

Under the pact with NISG, IBM plans to set up a Linux and open source practice at NISG to promote affordable computing and share its e-governance framework — a set of standards-based e-governance applications based on open source technologies, which allows reuse of assets, prevents duplication and allows interoperability.

According to Company sources, the government of Uttaranchal which has signed an MoU with IBM in February would be the first implementation of the Big Blue's e-governance framework in India. It would provide intuitive graphical interfaces for ease of use by non-IT skilled officials, citizens and businesses.

IBM has also volunteered to train an NISG team in project management, solution development and introduction of innovative technologies for affordable computing. In return NISG would consult IBM on any major e-governance project to be undertaken.

"IBM recognises the strategic role of NISG in the evolution of e-governance applications and affordable computing in India," says R Dhamodaran, vice president and country executive, Software Group and Developer Relations, IBM India.

IBM India is already working with over ten state governments on e-governance including Maharashtra, Pondicherry, Karnataka, Andhra Pradesh and Uttaranchal. It is holding a string of e-governance conclaves with senior government officials across the country "to help the government fulfil its vision of 'government on demand'. Albeit with an eye on the $ 1.3 billion e-governance opportunity and the projection of 25% of government transactions being made available on the Web by 2005.

In fact, a recent Nasscom report on investments in IT by state governments reveals that close to Rs 15,000 crore has been provided for in their budgets towards computing operations over the next five years.

This apart, the government sector accounted for 9% of the total IT spend in India in 2002 and is estimated to go up to 15 % of the total IT spend in the next five years. While IBM is a known proponent of open source, the Hyderabad-based NISG, promoted by the Centre, state governments and the National Association of Software and Service Companies (Nasscom), was set up in 2002 as a private-public partnership with the private sector having 51% equity. Its main goal is to provide integrated online services to the citizens and businesses and would play a pivotal role in a Rs 2,550 crore e-governance initiative for 2003-07. More than 15 projects have been identified as "mission mode" under this plan.

Says J Satyanarayana, CEO, NISG "Linux is increasingly being used in the e-government space worldwide. Our decision to partner with IBM which supports and endorses open source, underlines our vision to drive greater transparency, agility, better citizen service and quality education through e-governance."

NISG would also get the status of a 'strategic IBM technology partner' under IBM's PartnerWorld program. This would give it access to Linux competency centres in India, the latest IBM software technology and solutions — for demo and evaluation purposes — as well as beta IBM software products of emerging technologies to prototype and develop new applications.