FOSS in e-Governance

উপস্থাপক

জয়ন্ত পারিয়াল

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ICT : A NEW TECHNO-ECONOMIC PARADIGM

- Technology is like education
  - enables people to lift themselves out of poverty
- Technology is a tool for growth and development
- ICT : A tool
  - to improve human capability
  - to integrate marginalised sections of the society
  - to modernise provision of services
  - to reduce rent seeking activities

Why?

E-Governance is no longer an Option - It is a reality and a necessarily of Governance

- National e-Governance Plan has been approved
- Many State Governments have created e-Governance Framework and Roadmaps
- Right To Information is likely to provide additional fillip

Understanding e-Governance

Understanding and Correctly Defining e-Governance is critical to the successful implementation.

- Distinction Needs to be made - Computerization vs. e-Governance
- Focus of Projects have to be “stakeholders”
- Process Reforms necessary - needs to be driven by Outcomes
- Projects Design have to be holistic - people, process, technology and institutions

Defining e-Governance

Use by government agencies of information and communication technologies **to *improve and transform relations*** with citizens, businesses, and other arms of government.

Outcomes

- Better delivery of government services to citizens
- Improved interactions with business and industry
- Citizen empowerment through access to information
- More efficient government
- management

Benefits

- Increased transparency
- Greater convenience
- Reduced corruption
- Revenue growth
- Reduced cost of running government

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Distinction Needs to be Made Between Outcomes (Why e-Governance) and Benefits of e-Governance

Imperatives of e-Governance

If you want e-Governance Projects to Succeed (be part of the 15% Project Success List) – we must focus on Citizens and our project design must be cost-effective

We can learn from international success - focus on citizen

- Singapore - Delighted Customers, connected citizens and networked Government
- Canada - To have the most commonly used services online by 2005 with a 10% increase in citizen satisfaction by 2005
- United States - …Citizen-Centred government…access to all information and services…within three clicks

National e-Governance Plan(NeGP):

Vision…..

- All Government services accessible to the common citizen
  - in his / her locality, throughout his / her life
  - through a One-stop-shop (integrated service delivery)
  - ensuring efficiency, transparency & reliability
  - at affordable costs
  - to meet the basic needs of the common citizen

NeGP

- National E-Governance Action Plan approved for implementation during 2003-07
- 10 components and 25 Mission Mode Projects
- Ambitious outlay of over Rs. 12,000 crores involving public and private investments

NeGP - Components

NeGP to provide the necessary framework for proliferation of e-Governance in India

- Core Policies
- Core Projects
- Core Infrastructure
- Integrated Services Projects
- Support Infrastructure
- Human Resource Development/Training
- Technical Assistance
- Awareness & Assessment
- Organizational Structures
- R&D

NeGP: Central Mission Mode Projects

MMPs identified on the basis of high citizen / business interface

- Income Tax
- Passport Visa & Immigration Project
- DCA 21
- Insurance
- National Citizen Database
- Central Excise
- Pensions
- Banking

NeGP: State Mission Mode Projects

MMPs identified on the basis of high citizen / business interface

- Land Records
- Road Transport
- Property Registration
- Agriculture
- Treasuries
- Municipalities
- Gram Panchayats
- Commercial Taxes
- Police
- Employment Exchange

NeGP: Integrated Mission Mode Projects

MMPs identified on the basis of high citizen / business interface

- EDI (E-Commerce)
- E-Biz
- Common Service Centres
- Indian Portal
- EG Gateway
- E-Courts
- E-Procurement

NeGP : APPROACH

- Focus on Public Service Delivery and Outcomes
  - Radically change the way Government delivers Services
  - Process Re-engineering and Change Management are critical
  - Integrated Service Delivery through Common Services Centres

NeGP : APPROACH

- Centralized Initiative, Decentralized Implementation
- Effective Public-Private Partnership is crucial
- Establish Core Infrastructure, Policies and Standards
- Standardize, Localize and Replicate
- System of Incentivisation of the State
- Think Big, Start Small and Scale Fast

Governments need an "innovation agenda" that involves IT and not an "IT Agenda" … Mckinsey Global Institute

Mission Mode Implementation: The Mindset

- What are the Services goals to be achieved
- Specific Service levels targeted
  - Average time taken now & proposed
  - Accessibility & reliability levels now & proposed
  - Timeframes, timelines and milestones

Mission Mode Implementation : The Arrangement

- Understanding of the Stakeholders
  - Their expectations & how to manage them
- Service delivery mechanisms

  Existing capacity in the department to undertake the initiative
- Systematic Evaluation and Monitoring
- Costs and Mode of funding
  - Capital, recurring & manpower
  - Grant, loan, PPP

Mission Mode Implementation : The Arrangement

- Institutional arrangements
  - Project Governance Structures
    - Central level Apex Committee under Cabinet Secretary created
    - State structure Should be headed by CM/CS & have substantial authority
  - Project Management Structure
    - Core Team and Mission Leaders to be in place

Current Status : Islands Of Successes

- Centre: Railways, DGFT, Customs and Income Tax
- State: Land Records, Registration, Transport, Treasuries, etc.
- Numerous initiatives at District and Local Govt level
- Much Remains to be done to speed up introduction of ICT in the Country

Current Status : Limitations

- Islands of success across the country
- Initiatives have long gestation, re-invent the will
- Mostly judged by the physical parameters
  - Hardware, Civil works, digitization, expenditure
- Successful local initiatives not followed through
  - No support mechanism - High failure rate
  - Individual driven - Not institutionalized
  - Service objectives, Service levels, GPR not
  - targeted explicitly
  - Most initiatives not projectised

Major Limitations Need to be Overcome

- Lack of Awareness of the Benefits of e-Governance
- Attitudes - resistance to change
- Lack of Program Management Skills
- Lack of Resources

Issues that Need to Be Addressed

- Need for clear service goals and levels for projectisation
- Service goals not achievable without substantial process re-engineering, change and project management
- Political and administrative buy-in needed at the highest level
- Need to use private sector capabilities and PPP models
- Need for Capacity Building

Issues that need to be addressed

- Need for e-Governance to keep pace with law and law to keep pace with technology
- Need for change management
- Need to replicate successful projects
- Need to use off-the-shelf solutions wherever feasible
- Need to utilise existing infrastructure and create Government call Centres
- Need to address local language issues
- Need to create institutional capacities
- Need for interoperable framework and standards

E-governance In India: Key Mantras For Success

- Islands of successful e-Governance Projects in many States
- Political and Administrative buy-in at the highest level
  - Effective use of the forum of Inter-State Council
- Systematic Assessment and Evaluation of e-Governance Projects
- Standardise, Localize and Replicate
- Set up National Centre for Good Governance [NCGG]
  - Repository of best e-Governance & Good-Gov. practices
  - Action Research
  - Capacity Building
  - Dissemination of Information
- Set up State Centres for Good Governance [SCGGs]

Role of CDAC

- C-DAC has been selected as a turnkey solution provider in many states of India.
- Bharat Operating System Solutions(BOSS) is a pioneer operating system from CDAC to provide open source platform for e-governance.
- BOSS has the unque advantage of having a proper support system to the end users.
- As BOSS supports the official languages, it will be possible to provide provide to the end users e-gov tools and support in their own language.

Case Studies

- Kerala
- Karnataka
- Maharashtra
- SSDG & NSDG
- Health Information Systems

BOSS @ NIC Palakkad

DC*suite : a project implemented for Modernization and Computerization of the District Collectorate

Taluk*Suite : extension of this project to Taluks and Villages

- An integrated web based application for Taluk Activities for Modernization and Computerization of all Taluks of the District
- creation of minimum infrastructure for all Villages and achieve total digital coverage of the Revenue Department up to the village level.

Taluk*Suite implementation

- web based software developed using Linux, Apache, MySql and PHP
- complete open source initiative
- All seats in the taluks are provided with a computer and each section with printers and scanners.
- All the 150 computers in 3 Taluks run on BOSS
- All taluks are connected to the Common Data Centre at Collectorate

Taluk*Suite implementation

All notes and document are prepared in Open Office with support for local language (Malayalam)

All printers/Scaners/Bar Code readers working in BOSS

Common applications and data will be shared by DC*Suite and Taluk*Suite

Integration of Data, Data aggregation and Service delivery from the Common Data Centre

Karnataka Valuation & e-Registration (KAVERI)

- One of the most high-profile e-governance projects in Karnataka
- Kaveri's database has triggers built-in, prevents changes to the database
- It maintains a log for every change made by user
- This software reduces corruption drastically.
- Define immovable property, search against its description, evaluate its value, calculate administrative and registration fees, help register relevant documents, and authorize the registered document

Sarita (Stamp And Registration with Information Technology Application)

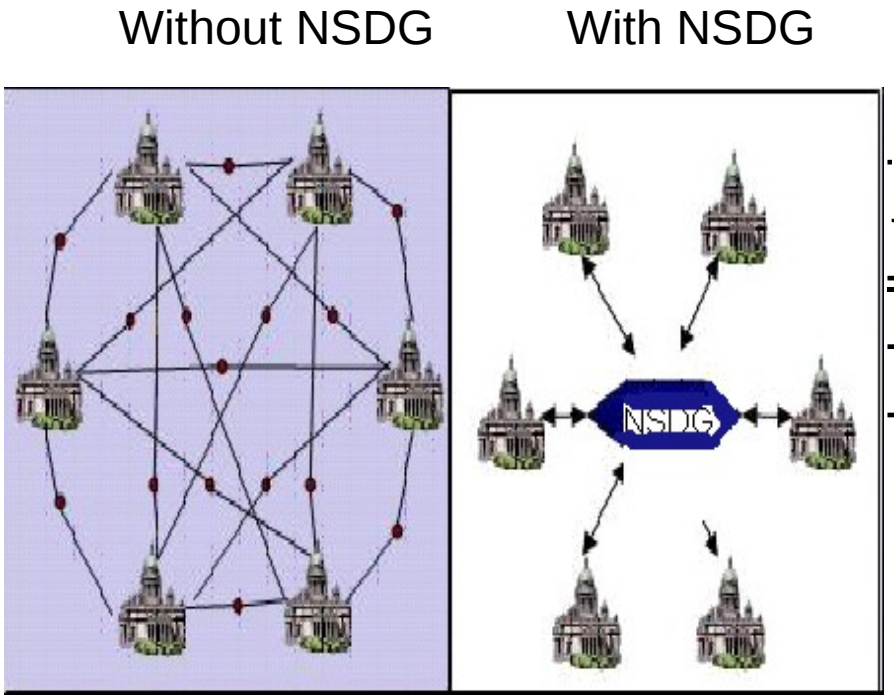
- C-DAC made the first prototype in 1998 and in August 2000 it deployed software at Haveli 4
- Important feature it has
  - Registration of 67 different types of documents as mandated by the Government
  - software simultaneously deployed at 360 sites networked
  - Error free registration with on-line monitoring and document encryption with photograph and thumb impression of seller, buyer, and consentor
  - Product in a shrink wrapped form for easy replication and administration at sites
  - Registration-valuation, scan-archive, network and process monitoring modules integration

Responsibility of the project covered (SARITA)

- Deployment of the software at all 360 sites of IGR in Maharashtra
- Hosting IGR website (www.mahaigr.org) giving all details of IGR activities to the public about its computerized services
- Training the IGR officials at Registrar, Sub-Registrar offices
- Pilot running with minimum registered documents (10,000) and scan and archive old documents (1 million) on CDs to be cut for storage and retrieval
- Training the IGR officials at Registrar, Sub-Registrar offices
- Network design for connectivity of 360 sites statewide

SSDG and NSDG project

- NSDG (National e-Governance Services Delivery Gateway) is a service exchange designed for centralized services.
- Aims to cooperate, collaborate and integrate information across different govt. departments
- NSDG acting as a nerve centre
- Handle large number of transactions and would help in tracking and time stamping all transactions of the Government.



SSDG and NSDG project

- SSDG:
  - The State e-Governance Service Delivery Gateway (SSDG)
  - Attempt to reduce point to point connections between departments and provide a standardized interfacing, messaging and routing switch through which various players such as departments
  - Front-end service access providers and back-end service providers can make their applications and data inter-operable
- NSDG is being implemented by CDAC and SSDG is in development phase

Objectives of SSDG and NSDG

- Act as a catalyst in enabling the building of Standards based e-Governance applications with Gateway as the middleware to ensure interoperability
- Enable integration across Centre, State or Local Governments there by enabling Integrated Service Delivery and a Service Oriented Architecture (SOA)
- Enable transaction logging and time stamping for tracking of transactions and centralized control
- De-link the back-end departments/Service Providers (SP) from the front-end Service Access Providers

Online Management and Monitoring System (OMMS) for PMGSY

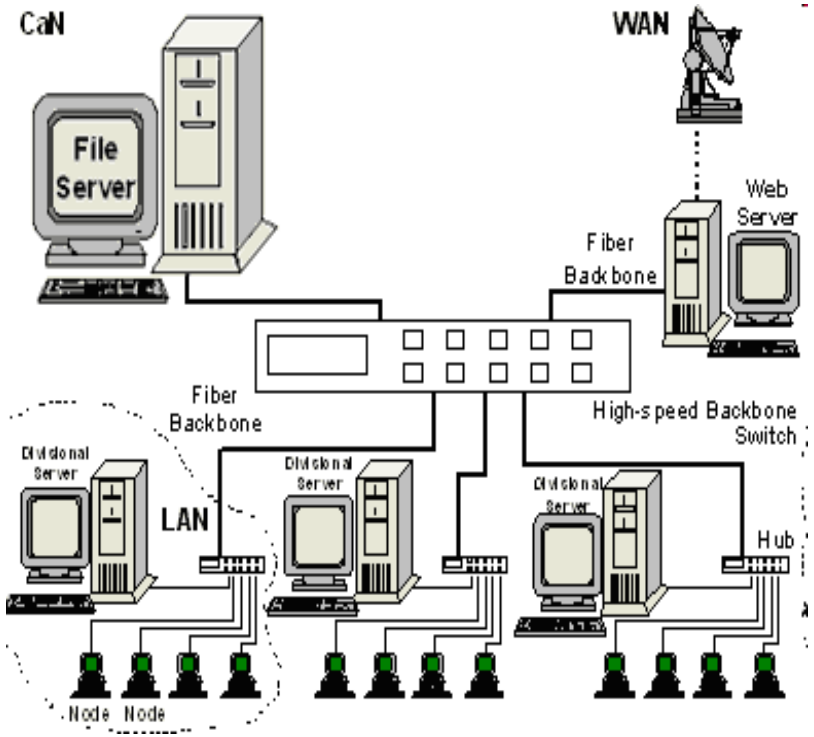
- Online Management and Monitoring System (OMMS), developed by Center for Development of Advanced Computing (C-DAC), Pune for the Ministry of Rural Development (MRD)
- Features
  - Data entry at the origin to avoid duplication of efforts
  - decision support tool for the officials in managing the network of roads

Laboratory Management and Automation System (LAMAS)

- The solution provide core Laboratory activities like Testing, R&D, Consultancy and Augmentation and supporting functions
- LAMAS has been successfully designed, developed and implemented in Central Power Research Institute (CPRI), Bangalore
- LAMAS is a modular system with four primary module
  - Laboratory System (LabSys)
  - Maintenance & Calibration System (MaCSys)
  - Divisional Purchase System (DiPSys)
  - Consultancy System (ConSys)
  - Research & Development System (ReDSys)

LAMAS (contd.)

- The major benefits of this system are:
  - Total Transparency of information to top-level management provides a better control and decision-making
  - in-built controls to eliminate irregularities
  - optimizes resource utilization by tracking data
  - Reduces manual intervention
  - Increases productivity by reducing clerical & routine work of technical personnel
  - boost marketing and publicity activities
  - Reduces time delays in Final Test Report generation
  - Internal Audit made more effective



Network architecture (LAMAS)

HIS (SUSHRUT)

- C-DAC's Sushrut, a Hospital Information System (HIS)
- Modular, sustained benefits through changes in technology
- Developed with the objective of streamlining the treatment flow of a patient in the hospital

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SUSHRUT (CONTD.)

- Advantages of electronic Patient Medical Records :
  - Prompt and reliable information storage
  - Easy access to query data to generate varied records
  - Efficient and accurate administration of finance, diet, engineering, and distribution of medical aid
  - Instant information access for research and library information
- Salient features of SUSHRUT:
  - Client server database architecture
  - RDBMS for easy retrieval and better performance
  - Portable across a variety of platforms
  - GUI interface
  - WAP enabled features
  - WEB Enabled features

Other Projects

- Land management system:
  - This application addresses the activities carried out by a corporation engaged in industrial development Integrated
- Octroi management
  - Credit account of the transporters or their lump sum deposit is used
  - Enables to rid all cash transactions in the state of Maharashtra
- Integrated electoral rolls for election commission
  - A project on preparation of integrated electoral rolls with updated entries was successfully completed in Maharashtra.
- Portfolio management solution:
  - A project on preparation of integrated electoral rolls with updated entries was successfully completed as per the guidelines of the Election Commission of India

Opportunities ahead

- We can use BOSS operating system to encourage Indian languages and use it as a platform for open source software implementation.
- Can use various open source tools to provide solutions
- Educate people about open source tools and their usefulness
- Make open source tools familiar to corporate sectors

Conclusion

e-Governance is not about ‘e’

but about governance !

e-Governance is not about computers

but about citizens !

e-Governance is not about translating process

but about transforming processess !

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Thank you

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