e-Governance Policy Initiatives under Digital India

Overview

The Department of Electronics and Information Technology (DeitY), Ministry of Communications and Information Technology has taken several policy initiatives in the e-Governance domain that are crucial for achieving the vision and objectives of the Digital India programme. Effective implementation of e-Governance is a key component of the Digital India programme. These policy initiatives are an endeavor to chart out the roadmap for implementation of e-Governance projects in the country. They cover a number of important areas, e.g. e-Kranti (National e Governance Plan 2.0), open source software, open APIs, e-mail policy, use of IT Resources, Collaborative Application Development and Application Development & Re-Engineering for Cloud Ready Applications. These policies are envisaged to provide necessary support to all Central Ministries/ Departments as well as all States/UTs in leveraging the emerging technologies, making use of newer business models and revamping of existing projects so as to deliver the services electronically to citizens in an efficient, transparent and affordable manner. These policies draw their strengths from the national and international best practices in the respective domain as well as inputs from subject matter experts from Government departments, industry and academia.

 "The e-Kranti Framework" (chapter 1) provides details on the e Kranti framework that is an integral part of the Digital India programme. With the vision of "Transforming e-Governance for Transforming Governance", e-Krantiprogramme aims towards easy governance, effective governance, good governance and mobile governance. It provides the key principles for revamping the existing projects and also for new and ongoing e-Governance projects.

The "Policy on Adoption of Open Source Software for Government of India" (chapter 2) will encourage the formal adoption and use of Open Source Software (OSS) in Government organizations. The compliance to this policy will ensure that strategic control of e-Governance assets would remain with the Government and would also ensure business continuity for the projects in future from technical perspective.

The "Framework for Adoption of Open Source Software in e Governance Systems" (chapter 3) suggests a set of recommendations and procedures for promoting, managing and enhancing the adoption of OSS in e-Governance Systems in India. It highlights the impact of adoption of OSS in Government, influencing factors, mutual impact of Open Standards and OSS, establishing enterprise security with OSS, unified software development for all major devices using standards based web browser and use of localisation.

The Framework suggests neutral guidelines to select software and the process for induction of OSS solution. The ecosystem suggested to promote the adoption of OSS describes required institutional mechanism, collaboration with key stakeholders like industry, OSS communities, academia,

collaborative mechanism, offering of services based on OSS, provisioning of support services on OSS and integration with on-going initiatives. The "Policy on Open Application Programming Interfaces (APIs) for Government of India" (chapter 4) sets out the Government's approach on the use of "Open APIs" to promote software interoperability for all e Governance applications & systems and provide access to data & services for promoting participation of all stakeholders including citizens. This policy initiative will encourage the formal use of Open APIs in Government organizations. The world-wide initiatives on "Open Government" also focus on open APIs to easily access the information collected by Government organizations.

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The e-Kranti Framework:

Digital India programme aims at transforming India into a digitally empowered society and knowledge economy. The implementation of e-Kranti, an integral part of Digital India, is vital for e-Governance in the country.All the new Mission Mode Projects (MMPs) are required to follow the key principles of e Kranti, namely 'Transformation and not Translation', 'Integrated Services and not Individual Services', 'Government Process Reengineering (GPR) to be mandatory in every MMP', 'ICT Infrastructure on Demand', 'Cloud by Default', 'Mobile First', 'Fast Tracking Approvals', 'Mandating Standards and Protocols', 'Language Localization', 'National GIS (Geo-Spatial Information System)', 'Security and Electronic Data Preservation'. All the existing MMPs would be revamped in accordance with the aforesaid principles of e-Kranti.

Considering the relevance and impact of e-Kranti on all Government Ministries / Departments and involvement of multiple implementing agencies, it has been decided that the overall responsibility for each component of e-Kranti will be with respective domain Ministry / Department.

The "e-Kranti Framework" provides the following details:

• Role of e-Kranti in Digital India

• Objectives of e-Kranti

• Principles of e-Kranti

• Approach and Methodology

• Implementation Strategy • Key Components

Chapter 1: The e-Kranti Framework

1.1 Preamble:

Government of India accords the highest priority to the Digital India programme that is an umbrella programme for transforming India into a digitally empowered society and knowledge economy. e-Kranti is an integral part of the Digital India programme with the vision of "Transforming e-Governance for Transforming Governance". The mission of e-Krantis "To ensure a Government wide transformation by delivering all Government services electronically to the citizens through integrated and interoperable systems via multiple modes while ensuring efficiency, transparency and reliability of such services at affordable costs."

What is this framework?
• Overarching framework for the implementation of e Governance projects
• Implementation of e-Kranti to ensure that e-Governance projects deliver outcome based services to citizens, businesses and also to Government
• 44 Mission Mode Projects (MMPs) to deliver various domain specific services
• Core ICT Infrastructure to provide front end, backend and middleware support
• Capacity building

Why we need it?
• Existing e-Governance projects, by and large, lack necessary process reengineering, use of emerging technologies like cloud and mobile, use of metadata and data standards, etc
• At present, there are numerous solutions but they are mostly suboptimal in performance
• e-Kranti aims to address the aforesaid issues in the e Governance project

1.2 Role of e-Kranti in Digital India and its approval :

The Union Cabinet in its meeting held on 25.03.2015 has approved the Approach and Key Components of e Kranti that includes, inter alia, the vision, mission, key principles of e Kranti, Approach and Methodology, Programme Management Structure and Implementation Strategy including 44 Mission Mode Projects and Core ICT Infrastructure. The Digital India programme and specifically its pillar 4 and pillar 5 namely 'e-Governance: Reforming Government through Technology' and 'e-Kranti - Electronic Delivery of Services' respectively are directly linked with e-Kranti and the implementation of e-Kranti is critical for the success of e-governance, easy governance and good governance in the country.

1.3 Objectives of e-Kranti:

The objectives of 'e-Kranti' are as follows:

i. To redefine NeGP with transformational and outcome oriented e-Governance initiatives
ii. To enhance the portfolio of citizen centric services
iii. To ensure optimum usage of core Information & Communication Technology (ICT)
iv. To promote rapid replication and integration of e-Governance applications
v. To leverage emerging technologies
vi. To make use of more agile implementation models

1.4 Principles of e-Kranti:

The key principles of e-Kranti are as follow:

i. Transformation and not Translation - All project proposals in e-Kranti must involve substantial transformation in the quality, quantity and manner of delivery of services and significant enhancement in productivity and competitiveness.

ii. Integrated Services and not Individual Services - A common middleware and integration of the back end processes and processing systems is required to facilitate integrated service delivery to citizens.

iii. Government Process Reengineering (GPR) to be mandatory in every MMP - To mandate GPR as the essential first step in all new MMPs without which a project may not be sanctioned. The degree of GPR should be assessed and enhanced for the existing MMPs.

iv. ICT Infrastructure on Demand – Government departments should be provided with ICT infrastructure, such as connectivity, cloud and mobile platform on demand. In this regard, National Information Infrastructure (NII), which is at an advanced stage of project formulation, would be fast-tracked by DeitY.

v. Cloud by Default - The flexibility, agility and cost effectiveness offered by cloud technologies would be fully leveraged while designing and hosting applications. Government Cloud shall be the default cloud for Government Departments. All sensitive information of Government Departments shall be stored in a Government Cloud only. Any Government Department may use a private cloud only after obtaining permission from Department of Electronics and Information Technology which shall do so after assessing the security and privacy aspects of the proposed cloud.

vi. Mobile First - All applications are designed/ redesigned to enable delivery of services through mobile. vii. Fast Tracking Approvals – To establish a fast-track approval mechanism for MMPs, once the Detailed Project Report (DPR) of a project is approved by the Competent Authority, empowered committees may be constituted with delegated powers to take all subsequent decisions.

vii. Mandating Standards and Protocols – Use of e-Governance standards and protocols as notified by DeitYbe mandated in all e governance projects. ix. Language Localization - It is imperative that all information and services in e-Governance projects are available in Indian languages as well. x. National GIS (Geo-Spatial Information System) - NGIS to be leveraged as a platform and as a service in e-Governance projects. xi. Security and Electronic Data Preservation - All online applications and e-services to adhere to

prescribed security measures including cyber security. The National Cyber Security Policy 2013 notified by DeitY must be followed.

1.5 Approach and methodology for implementing e-Kranti :

The following Approach and Methodology should be adopted for e-Kranti:

i.   Ministries / Departments / States would fully leverage the Common and Support ICT Infrastructure (e.g. GI Cloud, National / State Data Centres, Mobile Seva, State Wide Area Networks, Common Services Centres& Electronic Service Delivery Gateways). DeitY would also evolve/ lay down standards and policy guidelines, provide technical and handholding support, undertake capacity building, R&D, etc.

ii.   The existing/ ongoing MMPs would also be suitably revamped to align them with the principles of e-Kranti. Scope enhancement, Process Reengineering, use of integrated & interoperable systems and deployment of emerging technologies like cloud & mobile would be undertaken to enhance the delivery of government services to citizens.

iii.   States would be given flexibility to identify, for inclusion, additional state-specific projects, which are relevant for their socio-economic needs.

iv.   e-Governance would be promoted through a centralised initiative to the extent necessary, to ensure citizen service orientation, interoperability of various e-Governance applications and optimal utilisation of ICT infrastructure/ resources, while adopting a decentralised implementation model.

v.   Successes would be identified and their replication promoted proactively with required customisation wherever needed.

vi.   Public Private Partnerships would be preferred wherever feasible to implement e-Governance projects with adequate management and strategic control.

vii.   Adoption of Aadhaar based ID would be promoted to facilitate identification and delivery of benefits.

1.6 Implementation Strategy of e Kranti:

For implementation of the e-Kranti, various Central Ministries/ Departments and State Governments would be involved. Considering the multiplicity of agencies involved and the need for overall aggregation and integration at the national level, it is considered appropriate to implement e-Kranti as a programme, with well defined roles & responsibilities of each agency involved, and to create an appropriate programme management structure.

For the e-Kranti, following role assignments/ responsibilities are being followed/ proposed:

(a) The proposed Apex Committee on Digital India programme, constituted with Cabinet Secretary as its Chairman and Secretary, DeitY as its Member Convener, would be overseeing the e-Krantiprogramme also and providing policy and strategic directions for its implementation and resolving inter ministerial issues. The Apex Committee, in addition would harmonize and integrate diverse initiative aspects related to integration of services, end to end process re-engineering and service levels of MMPs wherever required.

(b) Line Ministries/Departments would be responsible for the implementation of the assigned Mission Mode Projects (MMPs)/Components as indicated in Annexure. Mission Mode Projects would be owned and spearheaded by various line Ministries for Central Government, State Governments and Integrated projects Annexure. Each Department would work in a project mode within a tight, defined timeframe by preparing a detailed project document, either in-house or with the assistance of a Consultant. This document should clearly spell out all important aspects of the project like services and service levels, project implementation team, process reengineering proposed, change management plan, project management plan, timelines, etc. The services and service levels would be determined in consultation with the actual users and for this, each concerned department would form an Advisory Committee, on which users would also be represented.

(c) State Governments would be responsible for implementing State Sector MMPs, under the overall guidance of respective Line Ministries in cases where Central Assistance is also required. An Apex Committee on Digital India proposed to be constituted at the State level headed by the Chief Secretary would be used to monitor the e-Kranti implementation at state level. They would also analyse State specific requirements and recommend project proposals for inclusions/ deletions from the listed MMPs.

(d) DeitY would be the facilitator and catalyst for the implementation of e Kranti by various Ministries and State Governments and would also provide technical assistance to them either directly or in collaboration with external professional Consultants. It would serve as a secretariat to the Apex Committee and assist it in managing the programme. In addition, it would implement pilot/ infrastructure/ technical/ special projects and support components including those indicated in Annexure. DeitY would also prepare a suitable template for preparing project document, which could be used by individual departments for preparing their detailed project reports.

(d) DAR&PG would continue its responsibility towards Generic Process Re-engineering and Change Management, which are desired to be realised across all government departments. However, to upscale NeGP to deliver services, DAR&PG would focus on transformational approach in the Government Process Re-engineering (GPR) initiatives of various Ministries / Departments. For various Mission Mode Projects, concerned Line Ministries/ Implementing Agencies would be primarily responsible for carrying out the required Process Re-engineering and Change Management. DAR&PG/ DeitY would also be promoting initiatives for Human Resource Development and Training and Awareness building.

(f) Planning Commission and Ministry of Finance would allocate funds for implementing e-Kranti both in existing and new MMPs through Plan and Non-plan budgetary provisions and lay down appropriate procedures in this regard. The projects in the portfolio of e-Kranti should be exempted from all budgetary restrictions and cuts such that the projects get implemented in time.

(g) Once the DPR of a project is approved by the Competent Authority, the Empowered Committee constituted for the purpose would be truly empowered to take all subsequent decisions, which should be implemented soon after the minutes of the EC are approved.

(h) The Council of Mission Leaders for Digital India proposed as a platform to share the best practices in Mission Mode Projects under NeGP and new e-Governance initiatives of DeitY would perform its envisaged role and responsibilities.

The inter-departmental, integration and interoperable issues of integrated projects / e-Governance initiatives would be resolved by the Apex Committee headed by Cabinet Secretary. And the technical issues of integrated projects would be resolved by the Council of Mission Leaders headed by Secretary, DeitY.

1.7 Annexure

Key Components of e Kranti The National E-Governance Plan (NeGP) was first conceived in mid 2003, by the D/o Electronics and Information Technology (DeitY) and the D/o Administrative Reform & Public Grievances (DAR&PG) and received in-principle approval at the level of the then Prime Minister on the 6th November 2003. Subsequently, Cabinet Secretary took follow up meetings of the Core Group on Administrative Reforms as well as of the Committee of Secretaries on 14.11.2003 wherein 22 Mission Mode Projects were identified for implementation on a priority basis. Four more projects have been added to the list of Mission Mode Projects namely e-Courts on the suggestion of the Judiciary, e Office on the suggestion of DAR&PG, e-Procurement on the suggestion of CVC, and Employment Exchanges at the instance of the Planning commission. Thereafter, Apex Committee on NeGP headed by the Cabinet Secretary reviewed the progress of NeGP and accorded in principle approval to add 4 MMPs namely Education, Health, PDS and Posts under the MMP portfolio of NeGP on 29th July, 2011. Subsequent to the conceptualization of National e Governance Plan 2.0 (NeGP 2.0), the 10 MMPs namely e-Sansad, e Vidhaan, Financial Inclusion, Roads and Highways Information System (RAHI), Agriculture 2.0, National Geographical Information System (NGIS), Rural Development, Social Benefits, Women and Child Development and Common IT Roadmap for Para Military Forces are accorded in principle approval by the Apex Committee on NeGP headed by Cabinet Secretary on 18th March, 2014. e-Bhasha, Urban Governance and National Mission on Education Through ICT (NMEICT) are proposed as new MMPs under Integrated Services Category.

The e-Kranti now covers 44 Mission Mode Projects in three categories: Central, States and Integrated Services. Details of these Mission Mode Projects are given in the Tables I to III below. Some of these projects are under various stages of implementation and may require some transformational process reengineering, refinements and adjustment of scoping and implementation strategy to achieve the desired service level objectives by the concerned line Ministries/Departments at the Central, State and Local Government levels. All these Mission

Mode Projects have the common aim of improving delivery of Government services to citizens and businesses.

Mission Mode Projects - Central Government Category

1. **Income Tax**
   - The Ministry of Finance, through the Central Board of Direct Tax, is responsible for the Income Tax project.
2. **Passport**
   - The Passport project is managed by the Ministry of External Affairs.
3. **MCA21**
   - The Ministry of Company Affairs oversees the MCA21 project.
4. **Insurance**
   - The Insurance project falls under the Department of Financial Services.
5. **National Citizen Database**
   - The National Citizen Database is handled by the Ministry of Home Affairs, specifically the Registrar General of India (RGI).
6. **Central Excise**
   - The Central Excise project is managed by the Department of Revenue and the Central Board of Excise & Customs.
7. **Pensions**
   - The Pensions project is overseen by the Department of Pensions & Pensioners Welfare and the Department of Expenditure.
8. **Banking**
   - Banking projects are under the Department of Financial Services.
9. **e-Office**
   - The Department of Administrative Reforms & Public Grievances is responsible for the e-Office project.
10. **Posts**
    - The Posts project is managed by the Department of Posts.
11. **Visa & Immigration**
    - The Visa & Immigration project is overseen by the Ministry of Home Affairs.
12. **e-Sansad**
    - The e-Sansad project is handled by the Parliament of India, Lok-Sabha Secretariat.
13. **Common IT Roadmap for Para Military Forces**
    - The Common IT Roadmap for Para Military Forces is managed by the Ministry of Home Affairs.

Mission Mode Projects State Government Category

The state government has also initiated several mission mode projects, each managed by different ministries and departments:

1. **Land Records**: Managed by the Ministry of Rural Development.
2. **Road Transport**: Managed by the Ministry of Road Transport and Highway.
3. **Property Registration**: Managed by the Department of Land Resources and the Department of Electronics and Information Technology.
4. **Agriculture**: Managed by the Department of Agriculture & Cooperation.

5. **Treasuries**: Managed by the Ministry of Finance.
6. **Municipalities**: Managed by the Ministry of Urban Development and Poverty Alleviation.
7. **Gram Panchayats**: Managed by the Ministry of Panchayati Raj.
8. **Commercial Taxes**: Managed by the Ministry of Finance.
9. **Police**: Managed by the Ministry of Home Affairs.
10. **Employment Exchanges**: Managed by the Ministry of Labour & Employment.
11. **School Education**: Managed by the Department of School Education and Literacy.
12. **Health**: Managed by the Department of Health and Family Welfare.
13. **Public Distribution System (PDS)**: Managed by the Department of Food and Public Distribution.
14. **e-Vidhaan**: Managed by the Parliament of India, Lok-Sabha Secretariat.
15. **Agriculture 2.0**: Managed by the Department of Agriculture.
16. **Rural Development**: Managed by the Department of Rural Development.
17. **Women and Child Development**: Managed by the Ministry of Women and Child Development.

These projects, including new ones under the e-Krant initiative, aim to enhance various aspects of governance and service delivery across different sectors at the state level.

Mission Mode Projects Integrated Services Category:

The Integrated Services category of Mission Mode Projects encompasses various initiatives aimed at improving service delivery across multiple sectors. Each project is managed by specific ministries and departments:

1. **EDI (E-Commerce)**: Managed by the Ministry of Commerce & Industry and the Department of Commerce.
2. **E-Biz**: Managed by the Department of Industrial Policy & Promotion and the Department of Electronics and Information Technology.
3. **Common Services Centres**: Managed by the Department of Electronics and Information Technology.
4. **India Portal**: Managed by the Department of Electronics and Information Technology and the Department of Administrative Reforms & Public Grievances.
5. **E-Courts**: Managed by the Department of Justice and the Ministry of Home Affairs.
6. **E-Procurement**: Managed by the Ministry of Commerce & Industry and the Directorate General of Supplies and Disposals (DGS&D).
7. **National Service Delivery Gateway**: Managed by the Department of Electronics and Information Technology.
8. **Financial Inclusion**: Managed by the Department of Financial Services.
9. **National Geographical Information System**: Managed by the Department of Science & Technology.
10. **Social Benefits**: Managed by the Ministry of Social Justice and Empowerment as the leader and other welfare departments as co-owners.

11. **Roads and Highways Information System (RAHI)**: Managed by the Ministry of Road Transport & Highways.
12. **e-Bhasha**: Managed by the Department of Electronics and Information Technology.
13. **National Mission on Education Through ICT (NMEICT)**: Managed by the Department of Higher Education.
14. **Urban Governance**: Managed by the Ministry of Urban Development.

These projects, including new ones under the e-Krant initiative, aim to enhance various aspects of governance and service delivery across different sectors, leveraging technology to provide integrated services to citizens.

Thrust Areas and Subcomponents of e-Kranti Outlined in Digital India:

The e-Kranti initiative under the Digital India program focuses on various thrust areas to leverage technology for improving education, healthcare, planning, farming, security, financial inclusion, justice, and cyber security. Each area has specific subcomponents aimed at enhancing service delivery and efficiency:

1. **Technology for Education (e-Education)**:
   o All schools will be connected with broadband.
   o Free Wi-Fi will be provided in all schools, covering 250,000 institutions.
   o A Digital Literacy program will be implemented.
   o MOOCs (Massive Online Open Courses) will be developed as pilot projects.
2. **Technology for Health (e-Healthcare)**:
   o Online medical consultations will be available.
   o Online medical records will be maintained.
   o Online medicine supply will be facilitated.
   o A Pan-India exchange for patient information will be established.
   o Pilot projects will start in 2015, with full coverage aimed for within three years.
3. **Technology for Planning**:
   o GIS-based decision making will be utilized.
   o The National GIS Mission Mode Project (MMP) will be implemented.
4. **Technology for Farmers**:
   o Real-time price information will be provided.
   o Online ordering of agricultural inputs will be enabled.
   o Online cash, loan, and relief payments will be facilitated through mobile banking.
5. **Technology for Security**:
   o Mobile emergency services will be provided.
6. **Technology for Financial Inclusion**:
   o Mobile banking will be promoted.
   o A Micro-ATM program will be implemented.
   o Common Service Centers (CSCs) and post offices will play a role in financial inclusion.
7. **Technology for Justice**:
   o e-Courts, e-Police, e-Jails, and e-Prosecution systems will be developed and implemented.
8. **Technology for Cyber Security**:

- o The National Cyber Security Coordination Center will be established to enhance cyber security measures.

Ongoing Mission Mode Projects under the National e-Governance Plan (NeGP) will be revamped to cover these areas and their subcomponents as outlined in the Digital India program.

e-Governance: Reforming Government through Technology:

e-Governance, which aims to reform government operations through the use of technology, is one of the nine pivotal pillars of the Digital India Programme. Its major components are outlined below:

1. **Government Business Process Re-engineering using IT to Improve Transactions**:
   - o Simplification and reduction of forms.
   - o Implementation of online applications and tracking systems.
   - o Establishment of interfaces between different departments.
   - o Use of online repositories for documents such as school certificates and voter ID cards.
   - o Integration of services and platforms like UIDAI, Payment Gateway, Mobile Platform, and Electronic Data Interchange (EDI).
2. **Electronic Databases**:
   - o All databases and information will be digitized, eliminating manual processes.
3. **Workflow Automation**:
   - o Automation of workflows within government offices to enhance efficiency and transparency, making the processes visible to citizens.
4. **Public Grievance Redressal using IT**:
   - o Utilizing IT to automate the grievance redressal process, ensuring timely responses and data analysis to identify and resolve persistent issues.
   - o Emphasis on process improvements.

The critical transformational components will be implemented across various government ministries and departments to ensure a cohesive and efficient approach to governance.

Support Components for Sustaining e-Governance Projects

To sustain the various e-Governance projects, it is essential to establish proper governance and institutional mechanisms, set up core infrastructure, formulate key policies, standards, and legal frameworks for adoption, and channel private sector technical and financial resources into the National e-Governance efforts. For this purpose, several key components have been identified for implementation, as outlined below. These components support various projects across different domains:

1. **Core Policies**: The Department of Electronics and Information Technology is responsible for developing core policies, including the Cyber Security Policy, National IT Policy, and Open Standard Policy, among others.
2. **Core Infrastructure**: Essential infrastructure components such as the State Wide Area Network (SWAN), National Information Infrastructure (NII), State Data Centers

(SDCs), Mobile Seva, Payment Gateway, and GI Cloud are overseen by the Department of Electronics and Information Technology.

3. **Support Infrastructure**: The Department of Electronics and Information Technology also manages support infrastructure like Common Service Centers (CSCs).
4. **Technical Assistance**: Provision of technical assistance is another critical component handled by the Department of Electronics and Information Technology.
5. **Research and Development**: The Department of Electronics and Information Technology is tasked with fostering research and development to support the e-Governance projects.
6. **Human Resource Development and Training**: Both the Department of Electronics and Information Technology and the Department of Administrative Reforms and Public Grievances are responsible for human resource development and training initiatives to build the necessary skills and expertise.
7. **Awareness and Assessment**: Raising awareness and conducting assessments are crucial for the success of e-Governance projects. These activities are jointly managed by the Department of Electronics and Information Technology and the Department of Administrative Reforms and Public Grievances.

These support components are integral to the effective implementation and sustainability of e-Governance projects, ensuring that they are well-supported by robust policies, infrastructure, and human resources.

With advancement in technologies like mobile, cloud, data analytics andsocial media and emergence of new business models like infrastructure on demand model, plug and playmodel and outcome based / transaction based charging, many new opportunities have appeared in the horizon, whichwere neither availablenorpracticalearlier. The scale, scope and speed of information exchange and data transfer has increased manifold in recent times and these require that Government's decision making and service delivery should be adequate and fastto meet the need and aspirations of the common citizens in the 21st century. The e-Kranti framework addresses the electronic delivery of services through a portfolio of mission mode projects that cut across several Government Department. It also covers essential requirements of Core ICT Infrastructure that include, inter-alia, GI Cloud, Data Centre, network connectivity, common platforms like Aadhaar, Mobile Seva, Payment Gateway, etc. Thekey principle of e-Kranti namely'Integrated Services and not Individual Services', 'Mandatory Government Process Reengineering (GPR) in every MMP', 'ICT Infrastructure on Demand', 'Cloud by Default', 'Mobile First', etc, would ensure the realization of vision of e Kranti i.e. "Transforming e-Governance for Transforming Governance."

Policy on Adoption of Open Source Software:

Digital India aims to make Government services digitally accessible to citizens in their localities and to ensure efficiency, transparency and reliability of such services at affordable costs. Government of India endeavours to adopt Open Source Software in all e-Governance systems implemented by various Government organizations as a preferred option.The policy shall be applicable to all Government organisations under the Central Governments and those State Governments that choose to adopt this policy for e-Governance systems.

This policy provides details on the following:
- Objectives
  - Nature of compliance
- Applicability
- How to Comply
- Exception
  - Implementation Mechanism

Chapter 2: Policy on Adoption of Open Source Software

2.1 Preamble

Government of India (GoI) is implementing the Digital India programme as an umbrella programme to prepare India for a knowledge based transformation into a digitally empowered society and a knowledge economy. Under the overarching vision of Digital India, GoI aims to make Government services digitally accessible to citizens in their localities and to ensure efficiency, transparency and reliability of such services at affordable costs. To meet this objective, there is a need to set up a commensurate hardware and software infrastructure, which may require significant resources.

Organizations worldwide have adopted innovative alternative solutions in order to optimise costs by exploring avenues of "Open Source Software". GoI has also been promoting the use of open source technologies in the e Governance domain within the country in order to leverage economic and strategic benefits. Further, the National Policy on Information Technology, 2012 has mentioned, as one of its objectives, to "Adopt open standards and promote open source and open technologies".

In view of the above, there is a need to formulate a policy for the Government Organizations to adopt Open Source Software. The "Policy on Adoption of Open Source Software for Government of India" (hereinafter referred to as "Policy") will encourage the formal adoption and use of Open Source Software (OSS) in Government Organizations.

2.2 Objectives

• To provide a policy framework for rapid and effective adoption of OSS

• To ensure strategic control in e Governance applications and systems from a long-term perspective.

• To reduce the Total Cost of Ownership (TCO) of projects

2.3 Policy Statement

Government of India shall endeavour to adopt Open Source Software in all e-Governance systems implemented by various Government organizations, as a preferred option in comparison to Closed Source Software (CSS).

The Open Source Software shall have the following characteristics:

• The source code shall be available for the community / adopter / end user to study and modify the software and to redistribute copies of either the original or modified software.

• Source code shall be free from any royalty.

2.4 Nature of Compliance

Mandatory

2.5 Applicability

 The policy shall be applicable to all Government Organisations under the Central Governments and those State Governments that choose to adopt this policy for the following categories of e-Governance systems:

• All new e-Governance applications and systems being considered for implementation.

• New versions of the legacy and existing systems. 2.6 How to comply All Government Organizations, while implementing e-Governance applications and systems must include a specific requirement in Request for Proposal (RFP) for all suppliers to consider OSS along

2.6 How to comply

All Government Organizations, while implementing e-Governance applications and systems must include a specific requirement in Request for Proposal (RFP) for all suppliers to consider OSS along with CSS while responding. Suppliers shall provide justification for exclusion of OSS in their response, as the case may be. Government Organizations shall ensure compliance with this requirement and decide by comparing both OSS and CSS options with respect to capability, strategic control, scalability, security, life-time costs and support requirements.

2.7 Exception

GoI shall endeavour to adopt Open Source Software in all e-Governance applications and systems implemented by Government Organizations. However, in certain specialised domains where OSS solutions meeting essential functional requirements may not be available or in case of urgent / strategic need to deploy CSS based solutions or lack of expertise (skill set) in identified technologies, the concerned Government Organization may consider exceptions, with sufficient justification.

2.8 Implementation Mechanism

i) GoI shall publish a policy framework for rapid and effective adoption of OSS covering the prioritization of the application areas and illustrative list of OSS & OSS Stacks etc, required for various functional areas.

 ii) All future Requests for Proposals (RFPs) of e-Governance projects shall include a mandatory clause for considering Open Source Software (OSS) as a preferred option in comparison to Closed Source Software (CSS). Suppliers shall provide justification for exclusion of OSS in their response.

iii) Government Organizations shall ensure compliance with this requirement and decide by comparing both OSS and CSS options with respect to capability, strategic control, scalability, security, life-time costs and support requirements.

 iv) GoI shall establish suitable support mechanism for the available OSS that includes Institutional Mechanism, Partnership with Industry, Academia and OSS Community.

v) GoI shall actively collaborate with OSS communities in India as well as at the International level and contribute wherever appropriate.

2.9 Review of the Policy

 GoI shall have the right to review the Policy as and when required.

2.10 Point of Contact

All queries or comments related to the "Policy on Adoption of Open Source Software for Government of India" shall be directed to JS (e Governance),DeitY (jsegov@deity.gov.in).

The e-Governance projects involve development of applications and databases for the delivery of citizen centric services through web or mobile platforms. Such applications are developed through various technologies, which could be open source software or closed source software. The source code of open source software is available to the developer community, which can make the necessary changes in the software as per any changes in requirements. This advantage is not available to the closed source software as their source code is not available to the developer community. This aspect of closed source software could pose a hindrance in ensuring strategic control with the Government. This is the main reason why, Governments worldwide are trying to promote application development in open source software.

How will it be implemented?

- ♣ GoI shall publish a policy framework for rapid and effective adoption of OSS
- ♣ RFPs of e-Governance projects shall have a clause on OSS as a preferred option
- ♣ Government organizations shall ensure compliance
- ♣ GoI shall establish suitable support mechanism for the available OSS
- ♣ GoI shall actively collaborate with OSS communities in India and abroad