

## **E-Kranti: Digital India Initiative**

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### **Abstract**

*Digital India is a drive launched by the Government of India to ensure the Government's services are made available to common citizens electronically. e-Kranti is an important pillar of the Digital India initiative. Its aim is electronic delivery of services like education, agriculture, health, justice or financial inclusion. Considering the significant need of e-Governance, m-Governance and Good Governance in the country, the approach and key components of e-Kranti has been approved by the Union Cabinet on March 2015 with the vision of "Transforming e-Governance for Transforming Governance". All new and on-going e-Governance projects as well as the existing projects, which are being revamped, follow the key principles of e-Kranti. We are also discussing some of the key challenges, benefits for implementing e-Kranti in India.*

*Keywords – e-Kranti, m-Governance, e-Governance, GIS, Mobile- First.*

### **I. INTRODUCTION**

**Digital India** is a drive launched by the Government of India to ensure the Government's services are made available to common citizens electronically. It will focus on providing high speed internet services to its citizens and make services available in real time for both online and mobile platform.

**e-Kranti** is to ensure a Government wide transformation by delivering all Government services electronically to citizens through integrated and interoperable systems via multiple modes, while ensuring efficiency, transparency and reliability of such services at affordable costs.

**e-Kranti** is an important pillar of the Digital India initiative. Its aim is electronic delivery of services like education, agriculture, health, justice or financial inclusion. Considering the significant need of e-Governance, m-Governance and Good Governance in the country, the approach and key components of e-Kranti has been approved by the Union Cabinet on March 2015 with the vision of "**Transforming e-Governance for Transforming Governance**".

All new and on-going e-Governance projects as well as the existing projects, which are being revamped, follow the following key principles of e-Kranti:

1. Transformation and not Translation
2. Integrated Services and not Individual Services
3. Government Process Reengineering (GPR)
4. ICT Infrastructure on Demand
5. Cloud by Default
6. Mobile First
7. Fast Tracking Approvals
8. Mandating Standards and Protocols
9. Language Localization
10. National Geo-Spatial Information System (GIS)
11. Security and Electronic Data Preservation

This move will empower the society in areas like broadband, mobile connectivity and government services on demand, and help the country's vision to be a digital-first economy. It is to ensure that government services are available to citizens electronically. Digital India also aims to transform ease of doing business in the country.

## **II. SCOPE OF THE STUDY**

The Digital India project, no doubt is one of the grandest projects till date because it embraces all the government machinery and departments in its fold; its aim is to create a truly participatory democracy with the use of digital technology; its target is to connect more than 125 crore Indians with their Government so that they could avail services and benefits of government services in real time and also get their grievances redressed in quick time.

- a. Connecting 2,50,000 Gram Panchayats through National Optical Fiber Network
- b. Improving IT literacy among citizen
- c. Providing Security of cloud data
- d. Creating an awareness among common masses

Overall this great initiative will require great efforts from the entire government machinery and people concerned to make it successful.

## **III. OBJECTIVES OF THE STUDY**

The government of India has taken new initiative as an important milestone in transforming India's digital infrastructure for the next generation and also as a medium for investment in technology sector and in employment generation.

e-Kranti programme was visualized by the Department of Electronics and Information Technology (DeitY) Government of India.

**Following are the objectives of the study:**

1. To study the initiative for digital India
2. To study applications of e-Kranti in India.
3. To know the key Principles of e-Kranti.
4. To study how to enhance the portfolio of citizen centric services

## **IV. DIGITAL INDIA INITIATIVE**

Digital India initiative is an extended and transformed version of e-Governance project which is in place since 1990s. Various e-Governance projects all over the country encompassing all the government departments have not been able to bring about desired results. Thus there was a need felt by the current government to overhaul the present infrastructure of e-governance plan and also include additional objectives in the new initiative.

Government of India accords highest precedence to the Digital India programme that is an umbrella programme for transforming India into a digitally empowered society and knowledge economy.

Prime Minister of India launched the ambitious Digital India initiative on 1 July 2015 at a ceremony held in New Delhi to celebrate first Digital India Week, in the presence of top CEOs from India and abroad.

The initiative comprises of several projects which will focus on better governance, knowledge and universal phone connectivity across the country.

Under this programme, the government plans to introduce Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, IT for Jobs and much more.

The governance will *shift from e-governance to m-governance*. The initiative aims to bring big investments in the technology sector and this Rs 1.13 lakh crore initiative will help in creating a participative, transparent and responsive government.

**Some key initiatives taken by Government of India which form a part of Digital India Initiative are as follows –**

- a) Digi Locker
- b) MyGov.in
- c) eSign Framework
- d) Swach Bharat Mission mobile app
- e) National Scholarship Portal
- f) eHospital
- g) Digitize India Platform
- h) Bharat Net
- i) Wi-Fi Hotspots
- j) Next Generation Networks
- k) Electronic Development Funds
- l) Center of Excellence on IOT etc.

**V. APPLICATIONS OF e-Kranti**

*The key principles of e-Kranti are as follows:*

- a) Transformation and not Translation** - All project proposals in it must involve substantial transformation in the quality, quantity and manner of delivery of services and significant enhancement in productivity and competitiveness. Transformation can be in several forms. It is most advisable so as to ensure legal sustainability of the proposed transformation.
- b) Integrated Services and not Individual Services** – Need to establish a common midpoint and integration of the back end processes. Processing systems is required to facilitate integrated service delivery to citizens in an end-to-end basis.
- c) Government Process Reengineering (GPR) to be mandatory in every MMP** - To mandate GPR as the essential first step in all new Mission Mode Project's (MMPs) without which a project may not be sanctioned. The degree of GPR should be assessed and enhanced for the existing MMPs also.
- d) 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.
- e) 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. The principle, “**Cloud by Default**” should be adopted by the government department in new e-gov initiative or while redesigning the existing e-gov initiatives.

- f) **Mobile First** - As on April 2019, the number of telecom subscribers has increased to more than 120 crores, out of which around 53 crores rural areas and the overall tele-density is around 91.86% in the country. All applications are designed/ redesigned to enable delivery of services through mobile. Low cost handsets, smart phones and low cost tablets would be ubiquitous in the near future given the exceedingly high growth rates seen.
- g) **Fast Tracking Approvals** – To establish a fast-track approval mechanism for MMPs. It is therefore in general advisable to design a special code of financial procedures tailor-made for the implementation of e-governance projects. It is strongly recommended that all projects forming part of e-Kranti should have a standard system for entrustment of the consultancy for design on a fast track by selecting from among a panel of pre-qualified consultancy organizations. 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.
- h) **Mandating Standards and Protocols** – Standards in e-Governance are critical to ensure sharing of information, seamless interoperability of data across eGovernance applications and integrated service delivery to citizens and businesses in India. With NeGP as the prime focus, large investments are being made under NeGP and other e-Governance projects. But the impact of this large investment is not so visible, due to lack of standardized approach. Use of e-Governance standards and protocols as notified by DeitY be mandated in all e-governance projects.
- i) **Language Localization** - In order that the fruits of e-governance reach the masses, the e-governance services offered in a multicultural, multilingual country such as India needs to be in one’s mother tongue. In order to deliver these services in multiple languages, it is crucial to follow internationalization / localisation standards. It is imperative that all information and services in e-Governance projects are available in Indian languages as well.
- j) **National GIS (Geo-Spatial/Geographic Information System)** - The NGIS would be a collaboration of DeitY, *Department of Space* (DoS) and *Ministry of Earth Sciences* (MoES) along with *Department of Science and Technology* (DST). The NGIS needs to be leveraged as a platform as well as a service for the benefit of various mission mode projects and eGov initiatives. NGIS can also be leveraged for monitoring the physical progress of projects.
- k) **Security and Electronic Data Preservation** - Increasing computerization and adoption of e-governance in various governance domains have led to creation of huge amounts of data and records in electronic form. There is a need to preserve the relevant electronic data and records for future reference and use. All the online applications and e-services should adhere to prescribed security measures including cyber security. For this purpose, the National Cyber Security Policy 2013 notified by DeitY must be followed.

All new and on-going e-Governance projects as well as the existing projects, which are being revamped, should now follow the key principles of e-Kranti.

## VI. BENEFITS OF E-KRANTI

### 1. *Enhance the portfolio of citizen centric services*

#### a) **To cover all citizen centric services / Social Sector Schemes**

In finance, generally a portfolio is a collection of investments held by a financial institution or individual. Citizen centric service involves designing of services from user's point of view rather than of the government departments. The bureaucratic silo approach would not provide the result as expected from the computerization efforts used in the government departments. The benefits have to be directly visible and translated into economic and social gains to the citizens.

Citizen-centric approach for e-kranti / e-governance is a strategy that encompasses policies and processes designed to attract, acquire, serve and retain citizens or, it can be said that it is an organisational philosophy that seeks to commit to building, managing and sustaining citizen for achieving the larger benefits of e-government system. The likely benefits are going to be: for service users in terms of reduced cost of transmitting information and travel, low price for services; for service provider, reduced processing, error rates, complaints; and for government, improved service consistency and equality; and finally, the benefits will lead to improved policy outcomes, e.g. better informed citizens leading to improved delivery of social policy objectives, greater tax collection, improved national competitiveness, and resources freed up to invest in critical national infrastructure.

#### b) **Long gestation period (Health, Education, e-Posts) of MMPs**

Due to their lower economic conditions in the society, they want to know types of diseases, special health camps schedules, availability of cheap medicines, and expert advice on health. They are more interested in timely release of old age and widow pension, antodaya cards, timely availability of essential commodities etc.

In Education they want to know availability of different scholarship, school vacancy under RTI, distribution of Dress and Books and schemes for BPL families etc.

### 2. *Optimum usage of core ICT infrastructure*

- a) SDC – 23\* SWAN – 34\* SSDG – 23\* CSCs – 1,39,696\* \*Operational
- b) MSDG, NSDG and Payment Gateway Operational

### 3. *Swift replication and integration of e-governance applications in government sector requires*

- a) Integrated services
- b) Government Process Reengineering
- c) End to end automation
- d) Interoperability among existing eGov applications
- e) Successful eGov applications across States and UTs

### 4. *Adoption of emerging technologies*

- a) Cloud – IaaS, PaaS, SaaS
- b) Mobile Platform- Smart phones, Tablets

- c) Geo-Spatial Information System (GIS)
- d) Software Defined Network (SDN)
- e) Big Data Analytics.

#### VII Key Challenges for implementing e-Kranti

1. **Infrastructure:** It is essentially required for the implementation of e-kranti as much as possible in India. Electricity, internet and poor adaptability of technology will retard the progress of e-kranti. In the context of developing countries, there should be enough basic facilities in order to give impetus to e-governance. *National Information Infrastructure (NII) 2.0* shall also effectively address the challenges that remain in the current infrastructure –

- a) **Server capacity,**
- b) **Interoperability,**
- c) **Bandwidth availability,**
- d) **Non-availability of robust last mile connectivity,**
- e) **Limited network redundancy and**
- f) **Sustainable business and Operational models.**

2. **Privacy and Security:** It is one of the critical challenges. Financial services, medical services and personal information are to be protected with security, and then only, there will be number of people trusting of it. Therefore, implementation of e-governance projects must have security standard and protocols for safeguarding the interest of all classes of society; otherwise, citizens will lose trust and confidentiality of e-Kranti.

In order to fast track the adoption of 'e-office' for interdepartmental movement of efiles, issues related to a –

- a) **Cyber security and vulnerabilities,**
- b) **Secure communication channel,**
- c) **Digitization,**
- d) **Cloud platform**

Moreover, adequate infrastructure for the growing demand of Cloud also needs to be assessed and provided. It was decided that NIC would prepare a technical note on these challenges and possible solutions.

3. **Digital divide:** In fact, in India, majority of the people, who living below poverty line and they deprived of govt. services. In contrast, some portions of people are immensely using the e-services of government.

- a) **Literacy and IT Literacy**
- b) **Rural and Urban Literacy rate**
- c) **Literacy and skill barriers**
- d) **Poverty - Economic barriers**
- e) **Multilingual platform barriers**

There are at least three factors at play: *information accessibility, information utilization and information receptiveness*. However, this gap needs to be made narrow, then only; the benefits of e-kranti would be utilized equally.

4. **IT Project Cost:** One of the difficult tasks of the government is to spend on implementation of e-Kranti initiatives of which government has to bear huge cost. India spending only 3% of GDP, indeed, government should motivate the officials, administrators and common people using services of e-Kranti.

**Following are some of the valuable and essential techniques used for efficient project cost control:**

- a) **Planning the Project Budget,**
  - b) **Keeping a Track of Costs,**
  - c) **Effective Time Management,**
  - d) **Reengineering,**
  - e) **Return on Investment.**
5. **Trust:** Nowadays, citizens using e-governance services, trusting the innovations of e-governance to some extent. Improving transparency means providing information speedily to all citizens. Furthermore, there might be some fraudulent activities done by any other entity for the sake of finance, valuable info and even about personal information, etc. Spending on Information Technology in India is expected to grow over 9 percent to reach US\$ 87.1 billion in 2018.

### CONCLUSION

**e-Kranti** is an important pillar of the Digital India initiative. Its aim is electronic delivery of services be it education, agriculture, health, justice or financial inclusion. The vision of ekranti is “**Transforming e-Governance for Transforming Governance**”. Some key principles of e-Kranti are Government Process Reengineering (GPR), Cloud by Default, Mobile First, Fast Tracking Approvals, Language Localization, Security and Electronic Data Preservation. Some of the key challenges for implementing e-Kranti are **Infrastructure wise** bandwidth, interpretability, connectivity, **Privacy and security wise** vulnerabilities and cloud data security, **Digital divide** due to economical barriers, IT literacy, Cost wise ROI, **Trust** by citizens and government as well. Most of the benefits are citizen centric services and it’s definitely the need of the hour.

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