

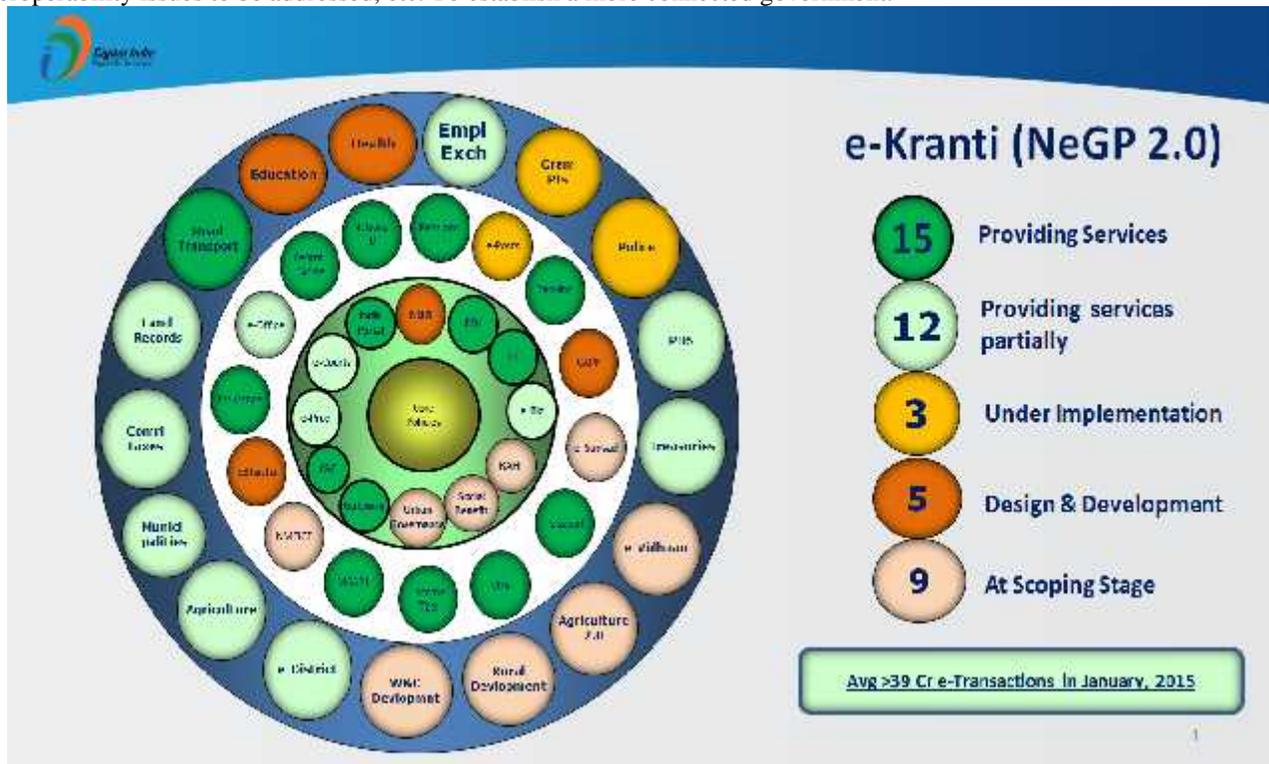
E-KRANTI: DIGITIZATION IN INDIA

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Introduction

The digital India programme is a flagship of the government of India with a vision to transform India into a digitally empowered society and knowledge economy. E-governance initiatives in India took a broader dimension in the mid 1990s for wider sectoral application with emphasis on citizen-centric eservices. The major ICT initiatives of the Government included, inter alia, some major projects such as railway computerization, land record computerization, etc. which focused mainly on the development of information systems. Later on, many states started ambition individual e-governance projects amide at providing electronic services to citizens. Through these e-governance projects were citizen-centric, they cloud make less than the desired impact due to their limited features. The isolated and less interactive systems revealed major gaps that were thwarting the successful adoption of e-governance along the entire spectrum of governance. They clearly pointed towards the need for a more comprehensive planning and implementation for the infrastructure required to be put in place, interoperability issues to be addressed, etc. To establish a more connected government.



E-Kranti: National E-Governance Plan

The National Level e-governance programme called National E-Governance Plan Initial in 2006. There were 31 Mission Mode Projects under National e-governance plan coverage a wide range of domains, viz agriculture, land records, health, education, passports, police, courts, municipalities, commercial taxes, treasuries etc. 24 Mission mode Projects have been implemented and started delivering either full or partial range of envisaged services. Considering the shortcomings in national e-governance plan that included lack of integration amongst Government applications and databases, low degree of government process reengineering, scope for leveraging emerging technologies like mobiles, cloud..Etc, Government of India has approved the e-kranti programme recently with the vision of transforming e-Governance for Transforming Governance.” All new on-going e-governance projects as well as the existing projects, which are being revamped, should now follows the key principles of e-kranti namely transforming and not translation, ‘integrated services and not individual services,’ government process reengineering (GPR) to be mandatory in every MMP,’ ICT infrastructure on demand,’ cloud be default,’ Mobile First Tracking Approvals,’ Mandating Standard and Protocols,’ language localization,’ national GIS (Geo-Spatial Information System) security and electronic Data Preservation. The portfolio of Mission Mode Projects has increased from

31 to 44 MMps. Many new social sector projects namely Women and Child Development, Social Benefit, Financial Inclusion, Urban Governance, e-Bhasha. Etc has been added as new MMps. Many under e-kranti



Vision of Digital India

The vision of Digital India Programme is to transform India into a digitally empowered society and knowledge economy. The Digital India programme is centered on three key vision areas.

- Digital Infrastructure as Core Utility to Every Citizen
- Governance and Services on Demand
- Digital Empowerment of Citizen

Digital Infrastructure as a Utility to Every Citizen

- Availability of high speed internet as a core utility for delivery of services to citizens
- Cradle to grave digital identity that is unique, lifelong, online and authenticable to every citizen
- Mobile phone & bank Account enabling citizen participation in digital & financial space
- Easy access to a common Services Centre
- Shareable private space on a public cloud
- Safe and secure cyber space

Governance & Services on Demand

- Seamlessly integrated services across departments or jurisdictions
- Availability of services in real time from online & mobile platforms
- All citizen entitlements to be portable and available on the cloud
- Digitally transformed services for improving ease of doing business
- Making financial transactions electronic & cashless
- Leveraging Geospatial Information System (GIS) for decision support system & development

Digital Empowerment of Citizens

- Universal digital literacy
- Universally accessible digital resources
- Availability of Digital resources/ services in Indian languages
- Collaborative digital platform for participative governance
- Citizens not required to physically submit Govt. document/ certificates

Digital Infrastructure as a utility to every Citizen

A well connected nation is a prerequisite to a well served nation. Nation the remotest of the Indian villages are digitally connected through broadband and high speed internet, then delivery of electronic government services to every citizen, targeted social benefit, and financial inclusion can be achieved in reality. One of the key areas on which the vision of Digital India is centered is “digital infrastructure as a utility to every citizen” . a key component under this vision is high speed internet as a core utility to facilitate online delivery of various services. It is planned to set up enabling infrastructure for digital identity, financial inclusion and ensure easy availability of common services centers. It is proposed to provide citizen with “digital lockers” which would be sharable private spaces on a public cloud, and where documents issued by Government departments and agencies cloud are stored for easy online access. It is also planned to ensure that the cyberspace is made safe and secure.

High Speed Internet as a Core Utility

Information and communication technologies (ICTs) have the potential of not only bridging the great digital divide in the country (in term of easy and effective access to ICTs) but also of positively contributing to the growth of the economy,

employment and productivity. The emphasis is on providing high speed internet connectivity across the length and breadth of the country by developing ICT infrastructure, optical fiber and last-mile connectivity options offered by wireless technologies in a manner that is affordable, reliable and competitive. The plan of action and timeless are as follows:

FOCUS AREA	INTENDED OUTCOME
Broadband for rural areas	Coverage for 2,50,000 Gram Panchayats (GPs) by 2016-17
Broadband for urban areas	Virtual Network Operators for service delivery; Mandatory communication infrastructure in new urban settlements and buildings
National Information Infrastructure	Integration of all core ICT infrastructure built under National e-Governance Plan (NeGP) for greater efficiency and synergy; Nationwide coverage by March 2017
Universal access to mobile connectivity	Greater network penetration; Coverage for 55,619 uncovered villages by 2018
Public Internet Access Programme under National Rural Internet Mission	Coverage for 2,50,000 GPs by 2016-17 through Common Services Centers (CSCs); Recasting of 1,50,000 post offices as multi-service centres by 2015-16

Cradle-To-Grave Digital Identity

The ideal identity is one that is unique, singularly sufficient, robust enough to disallow duplicate and fake records, easily and digitally authentically in an inexpensive manner, and lifelong. Aadhaar, a 12-digit individual identification number issued by the unique identification authority of India (UIDIA) on behalf of the Government of India, meets these requirements. It is essentially a paperless online anytime-anywhere identity assigned to a resident to cover his/her entire lifetime. The verification of identity is done online with the help of authentication devices which connect to UIDAI's central Identity Repository and return a 'yes' or 'no' response to the basic query, is the person who he/she claims to be?" Based on the demographic and biometric data available with UIDAI Aadhaar can be used by any application which needs to establish the identity of a resident and/or provide secure access for the resident to services/benefits/entitlements offered by the application. Deity conducted workshop with various stakeholders in October 2014 to brainstorm on various aspects of how mobile phones can be used as instruments for electronic authentication of individual's identities. The key outcome of the workshop and further deliberations was that "digital identity" should imply enabling mobility while establishing a person's identity. For usage of mobile as an instrument of digital identity, there possible mobile identity solution emerged: (1) Mobile number linked with Aadhaar, (2) Mobile with digital signatures; and (3) Mobile with voice biometrics (either standalone, or linked to mobile number). Work is underway to implement the most efficient and effective solution to enable citizens to enjoy the benefits of a mobile-linked cradle-to grave digital identity.

Participation In Digital & Financial Space Through Mobiles & Banking

Indian telecom sector is the world's fastest growing telecom sector. The massive and growing penetration of mobile phones in India, especially in rural areas, provides a ready and widespread base for access to and delivery of public services electronically. Data access through mobiles continues to gain popularity, and as on date, around 80 percent of internet users in India access intranet through mobile devices. This holds great promise as potential for e-governance in general and digital-cum-financial inclusion in particular. In the mobile space. Deity has launched Mobile Seva, a revolutionary whole-of-government mobile governance initiatives, Enabling government departments and agencies across the nation to deliver public services to citizens and businesses through mobile devices across various mobile-based channels such as SMS, USS, mobile apps, and voice/IVRS. In the financial space, Deity has collaborated with NSDL Database Management Limited (NDML) for providing payGov, a centralized platform for facilitating all government departments and services to collect online payments from citizens for public services. PayGov offers an end-to-end transactional experience for citizens who can opt from various payment options such as Net Banking (65+Banks), debit cards, credit cards, cash cards/ prepaid cards/wallets, and NEFT/RTGS, etc. the Pradhan Mantri Jan-Dhan Yojana' has been launched as a national mission encompassing an integrated approach to bring about comprehensive financial inclusion of all the households in the country. The plan envisage universal access to banking facilities with at least one basic banking account per household, financial literacy, access to credit, insurance and pension facility. It also envisages channeling all government benefit to the beneficiaries' bank accounts. A special track on "mobile as an instrument of financial inclusion" was organized during the mobile identity brainstorming consultation workshop conducted at Deity in October 2014. The workshop and further deliberations brought to fore that the extensive distribution networks of telecom service providers as well as the actual coverage and connectivity provided by



them have the potential of addressing the challenges facing smooth functioning of banking services in rural areas, such as availability of power, cash management, security and adequacy of cash-in/cash-out points. Mobiles can serve as a viable and effective complementary channel for financial inclusion.

Easy Access to a Common Service Centre (CSC)

implemented under the NEGP formulated by Deity, the CSCs are ICT-enabled front-end service delivery points (Kiosks) at the village level for delivery of government, financial, social and private sector services in the areas of agriculture, health, education, entertainment, banking, insurance, pension, utility payments etc. CSCs operate within a Public-Private-Partnership (PPP) model and a 3-tier structure consisting of the CSC operate (known as the village level Entrepreneur or VLE), the service Centre Agency (SCA) for establishing CSCs in a zone consisting of a few districts, and a State Designed Agency (SDA) for managing the implementation in the State. CSCs enable government, Private and social sector organizations to align their social and commercial goals for the benefit of the rural population in the remotest corners of the country through a combination of IT-based as well as non-IT-based services. The initial target was to establish 1, 00,000 CSCs in 6, 00,000 villages in the ratio of one CSC for every 6 villages. As on date, more than 1, 37,000 CSCs are operational across the country. Under the proposed CSC 2.0 programme, it is planned to increase the number of CSCs to 2, 50,000 (covering all panchayats) to facilities easier access to CSCs for the citizens.

Safe and Secure Cyber-Space

Cyberspace is where all online digital assets, protocols, identities etc. reside and interact and transact. It is imperative the cyberspace be made safe and secure for all organization and users. The National Information Security Policy has been put in place to protect information and information-infrastructure in cyber space, build capabilities to prevent and respond to cyber threats, reduce vulnerabilities and minimize damage from cyber incidents through a combination of institutional structures, people, processes, technology and cooperation. The Indian Computer Emergency Response Team (ICERT/CERT-in) of Deity hosts a comprehensive “secure your PC” portal at (<http://www.cert-in.org.in/secureyourpc.in/>(link is external) SPC colored English/ large/ Index.html) with guidelines and measures for users against risks and threats. Further, a National Coordination Centre on Cyber security has been proposed as one of the key projects under Digital India to provide safe and secure cyber space.

Service Available In Real Time from Online & Mobile Platforms

The focus today is on designing e-Governance applications in such a way that the related information, services and governance-handling mechanism are accessible online on a real time basis and across all types of access devices such as desktop computers, laptops, tablets, mobiles, etc. To ensure provisioning of high speed broadband connectivity at panchayat level, the National Optical Fiber Network (NOFN) project is being implemented by the Department of Telecommunication (DoT). This aim to resolve the connectivity issues by taking gigabit fiber to all the panchayats in the country. The mobiles Seva project of Deity is a highly successful project that provides a common national platform to all Government departments and agencies at the central, state and local levels for providing mobile based services and mobile apps. Over 1900 government departments and agencies across the country are using the mobile platform mobile enabled services. This initiative has won the 2014 United Nations Public Service Award. Mobile Sevas a winner at United Nations Public Services Awards (2014) under the category “Promoting Whole-of-Government Approaches in the information Age”. It is the only winner from India 2014.

Digitally Transformed Services for Improving Ease of Doing Business

Starting a Business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency and other clearances etc. are the various experience that define how easy or difficult it is to do business in a country. Government services for businesses shall be digitally transformed for improving Ease of Doing Business in the county.

The existing MMPs, under the NEGP shall be strengthened using latest tools and technologies:

- The e-Biz project provides integrated services various central and state departments/ agencies through a single windows mechanism to all business and investors for setting up a commercial enterprise.
- The “MCA21” MMP aims at providing electronic services for statutory requirements and other business related services.
- The e-Trade MMP facilitates foreign trade in India by promoting effective and efficient delivery o services by various regulatory/ facilities agencies involved in foreign trade, to enable trades to avail online services from these agencies.

Making Financial Transaction Electronic & Cashless

Electronic payments and funds transfers have the advantage of targeted and direct delivery to the intended beneficiaries without the involvements of middlemen who may otherwise subvert the system. Similarly, online mechanisms for payments

of fees for certain public services offer a transparent, friendly and expeditious channel to citizens for payments. All financial transactions above a threshold shall be made electronic & cashless. DeitY has Created PayGov India as a centralized payment gateway for all Government Departments and agencies in the country. It is operated and maintained by NSDL Database Management Ltd (NDML), a wholly owned subsidiary of National Securities Depository Limited (NSDL). PayGov India is securely integrated with National and State Service Delivery gateways (NSDG and SSDG) to enable sharing of information across database for efficient service delivery, and also with the Mobile Service Delivery Gateway (MSDG) under Mobile Seva. The citizens can choose from a host of e-payment options such as Net banking, credit card, debit card, prepaid / cash card/wallet, immediate payment Service (IMPS) and mobile wallet.

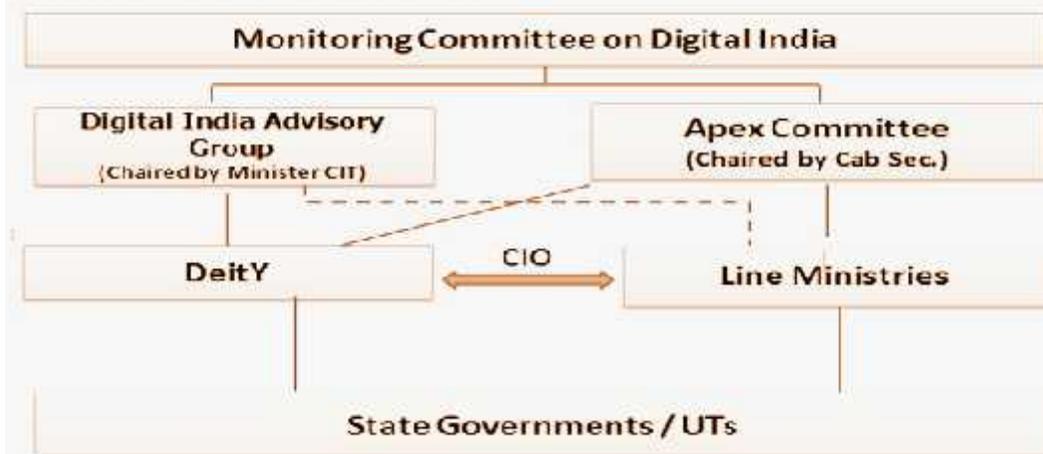
Availability of Digital Resources/ Services in Indian Languages

India has a remarkable diversity in terms of languages written and spoken in different parts of the country. There are 22 official languages and 12 scripts. Knowledge of English is limited to a very small section of the population in the country. The rest often cannot access or comprehend digital resources which are available mainly in English. DeitY has initiated the Technology development for Indian languages (TDIL) programme for developing information processing tools and techniques to facilities human-machine interaction without language barriers, creating accessing multilingual knowledge resources, and integrating them to develop innovative users products and services. The programme also promoter's languages technology standardization through active participation in international and national standardization bodies such as ISO, UNICODE, World-wide-web consortium (W3C) and Bureau of Indian Standards (BIS) to ensure adequate representation of Indian languages in existing and future languages technology standards. DietY has also initiated the localization Projects Management Framework (LPMF) to help localize application under the MMPs and other government applications. DietY is also formulating a new mission mode project named as e-Bhash to help develop and disseminate digital content in local languages to India's largely non-English speaking population. The disable friendly content and system are being developed as per accessibility standards.

Current Status

Since the "e-kranti: National e-Governance plan 2.0" is already intergraded with digital India programme, the existing programme management structure established for National e-Governance Plan at both national and state level has also been decided to be integrated appropriately with the programme management structure being envisaged for digital India programme at National and State/UTI level.

Institutional Mechanism at National Level



The apex Committee on the Digital India Programme Headed by the Cabinate Secretary and the Digital India Advisory Group chaired by the Minister of Communications and Information Technology has been constituted. Digital India is an umbrella programme that covers multiple Government Ministries and Departments. It weaves together a large number of ideas and thoughts into a single, comprehensive vision so that each of them can be implemented as part of a larger goal. Each individual element stands on its own, but is also part of the larger picture. Digital India is to be implemented by the entire Government with overall coordination being done by the **Department of Electronic and Information Technology (DeitY)**. Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, e-Kranti- Electronic delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs



and Early Harvest Programmes. Each of these areas is a complex programme in itself and cuts across multiple Ministries and Departments.

Conclusion

The digital India programme is a flagship of the government of India with a vision to transform India into a digitally empowered society and knowledge economy. E-governance initiatives in India took a broader dimension in the mid 1990s for wider sector application with emphasis on citizen-centric eservices. The major ICT initiatives of the Government included, inter alia, some major projects such as railway computerization, land record computerization, etc. which focused mainly on the development of information systems. Later on, many states started ambitious individual e-governance projects aimed at providing electronic services to citizens. Indian telecom sector is the world's fastest growing telecom sector. The massive and growing penetration of mobile phones in India, especially in rural areas, provides a ready and widespread base for access to and delivery of public services electronically. Data access through mobiles continues to gain popularity, and as on date, around 80 percent of internet users in India access intranet through mobile devices

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