DIGITAL INDIA: ITS DIGITAL SERVICES FOR CITIZENS

PALVINDER SINGH
Assistant Professor, Department of Electronics and IT, Sanatan Dharma College, Ambala Cantt
Palvinder4us2006@gmail.com

ABSTRACT

The motto of Digital India is "Power to Empower." Digital India is a government of India effort aimed at making government services available to individuals electronically through enhanced online infrastructure and increased Internet connectivity, as well as making the country technologically enabled. Rural communities will be connected to high-speed internet networks as part of the effort. The development of a safe and robust digital infrastructure, the delivery of government services online, and universal digital literacy are the three main components of Digital India. Digital India supports several services, including the Digital Locker and the Swachh Bharat Mission (SBM) Mobile App.

Introduction:

Digital India was launched by the Prime Minister of India Narendra Modi on 1 July 2015 with an objective of connecting rural areas with high-speed Internet networks and improving digital literacy[3][4][5].The vision of Digital India program is inclusive growth in areas of electronic services, products, manufacturing and job opportunities etc. and it is centered on three key areas – Digital Infrastructure as a Utility to Every Citizen, Governance & Services on Demand and Digital Empowerment of Citizens[6]. The Government of India entity Bharat Broadband Network Limited (BBNL) which executes the National Optical Fibre Network project will be the custodian of Digital India (DI) project [7][8] BBNL had ordered United Telecoms Limited to connect 250,000 villages through GPON to ensure FTTH based broadband. This will provide the first basic setup to achieve towards Digital India and is expected to be completed by 2017.The government is planning to create 28,000 seats of BPOs in various states and set up at least one Common Service Centre in each of the gram panchayats in the state [9].

The 2016 Union budget of India announced 11 technology initiatives including the use of data analytics to nab tax evaders, creating a substantial opportunity for IT companies to build out the systems that will be required [10] Digital Literacy mission will cover six crore rural households [10]. It is planned to connect 550 farmer markets in the country using technology [11]. Out of 10% English speaking Indians, only 2% reside in rural areas. Rest everyone depends on their vernacular language for all living their lives. However, as of now, email addresses can only be created in English language. To connect rural India with the Digital India, the Government of India impelled email services provider giants including Gmail, office and Rediff to provide the email address in regional Languages. The email provider companies have shown positive sign and is working in the same process [12]. An Indian based company, Data Xgen Technologies Pvt Ltd, has launched world's first free linguistic email address under the name 'DATAMAIL [13] which allows creating email ids in 8 Indian languages, English; and 3 foreign languages – Arabic, Russian and Chinese. Over the period the email service in 22 languages will be offered by Data XGen Technologies [14].

1. Pillars of Digital India:

The Government of India hopes to achieve growth on multiple fronts with the Digital India Program. Specifically, the government aims to target nine 'Pillars of the Digital India' that they identify as being:

1. Broadband Highway
2. Universal Access to Mobile connectivity
3. Public Internet Access Program
4. E-Governance – Reforming Government through Technology
5. E-Kranti - Electronic delivery of services
6. Information for All

7. Electronics Manufacturing

8. IT for Jobs

9. Early Harvest Programs

This covers three subcomponents, namely Broadband for All - Rural, Broadband for All - Urban and National Information Infrastructure (NII).

a) Broadband for All - Rural

2,50,000 village Panchayats would be covered under the National Optical Fibre Network (NOFN) by December 2016. Department of Telecommunications (DoT) is the nodal Department for this project.

b) Broadband for All - Urban

Virtual Network Operators would be leveraged for service delivery and communication infrastructure in new urban developments and buildings would be mandated.

c) National Information Infrastructure (NII)

NII would integrate the network and cloud infrastructure in the country to provide high speed connectivity and cloud platform to various government departments up to the panchayat level. These infrastructure components include networks such as Statewide Area Network (SWAN), National Knowledge Network (NKN), National Optical Fibre Network (NOFN), Government User Network (GUN) and the MeghRaj Cloud. NII aims at integrating all ICT infrastructure components such as SWANs, NKN, NOFN, GUN and GI Cloud. It will have provision for horizontal connectivity to 100, 50, 20 and 5 government offices/ service outlets at state, district, block and Panchayat levels respectively. DeitY will be the nodal Department for this project.

2.1 Broadband Highway

This initiative focuses on network penetration and filling the gaps in connectivity in the country. There are around 55,619 villages in the country that do not have mobile coverage. As part of the comprehensive development plan for Northeast, providing mobile coverage to covered villages has been initiated. Mobile coverage to remaining uncovered villages would be provided in a phased manner. The Department of Telecommunications will be the nodal department and project cost will be around `16,000 Cr during 2014-18.

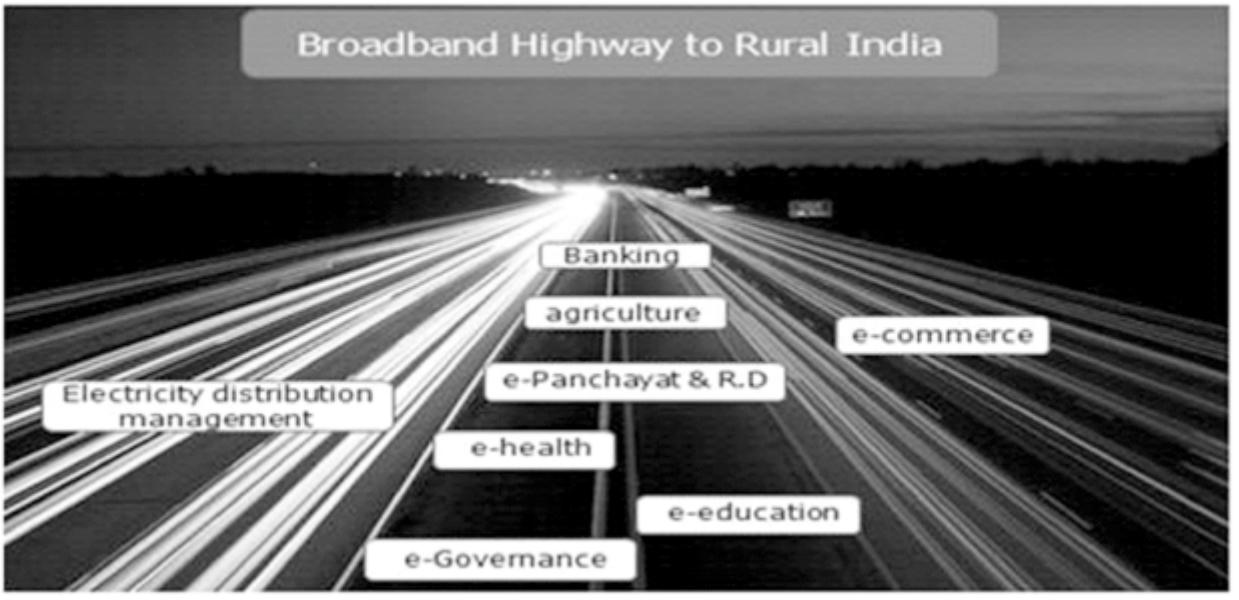

Figure 1. Broadband Highway

2.2 Universal Access to Mobile connectivity

This initiative focuses on network penetration and filling the gaps in connectivity in the country. There are around 55,619 villages in the country that do not have mobile coverage.

ISBN: 978-81-954645-5-5

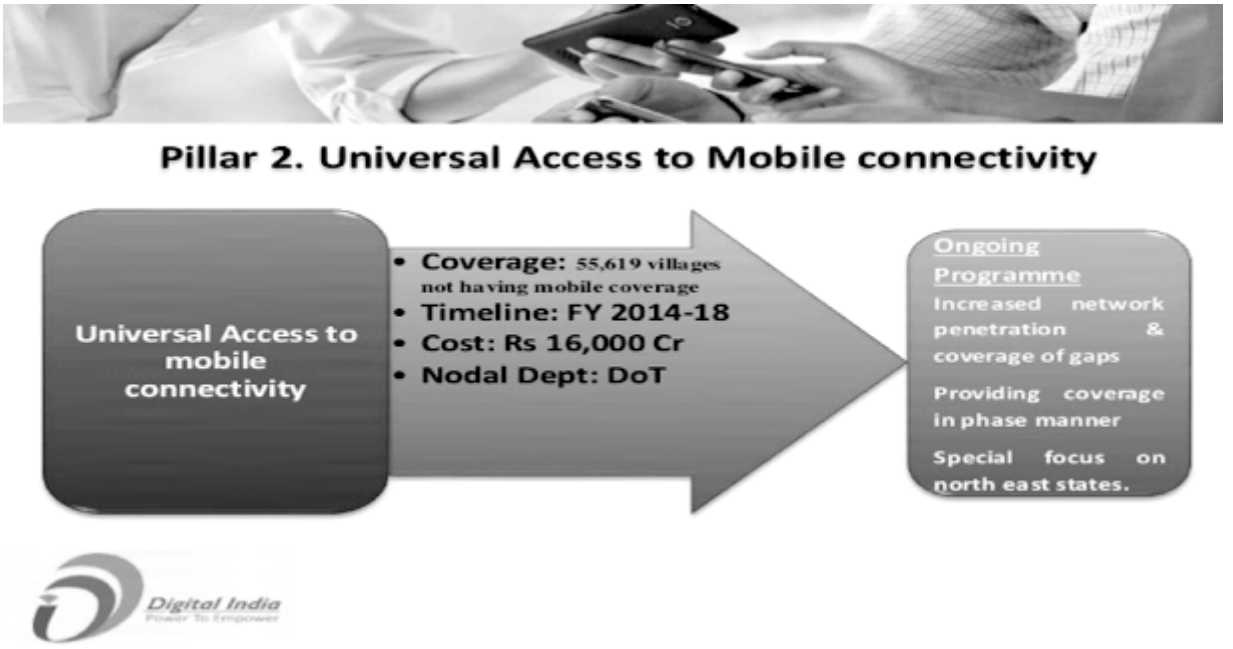

Figure 2. Services through Mobile connectivity

As part of the comprehensive development plan for Northeast, providing mobile coverage to covered villages has been initiated. Mobile coverage to remaining uncovered villages would be provided in a phased manner. The Department of Telecommunications will be the nodal department and project cost will be around `16,000 Cr during 2014-18.

2.3 Public Internet Access Program

The two subcomponents of Public Internet Access Program are Common Services Centers (CSCs) and Post Offices as multi-service centers. CSCs would be strengthened, and its number would be increased to 250,000 i.e. one CSC in each Gram Panchayat. CSCs would be made viable and multi-functional endpoints for delivery of government and business services. DeitY would be the nodal department to implement the scheme.

Figure 3: common services center.

Post Offices as multi-service centers A total of 150,000 Post Offices are proposed to be converted into multi service centers. Department of Posts would be the nodal department to implement this scheme.

Figure 4: Digital Post-office

2.4 E-Governance – Reforming Government through Technology

: Government Process Re-engineering using IT to simplify and make the government processes more efficient is critical for transformation to make the delivery of government services more effective across various government domains and therefore needs to be implemented by all Ministries/ Departments.

The guiding principles for reforming Government through technology are:

- Form simplification and field reduction – Forms should be made simple, and user friendly and only minimum and necessary information should be collected.

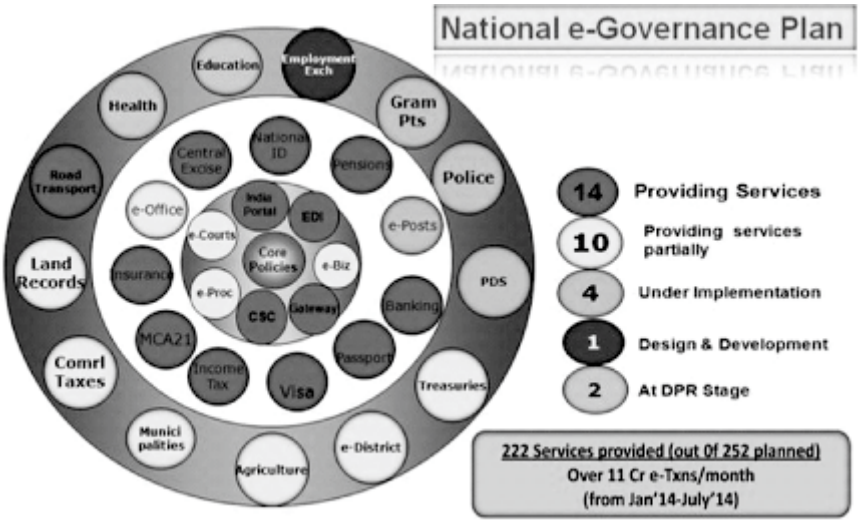

Figure 5: different e-services

- Online applications and tracking - Online applications and tracking of their status should be provided.
- Online repositories - Use of online repositories e.g., for certificates, educational degrees, identity documents, etc. should be mandated so that citizens are not required to submit these documents in physical form.

- Integration of services and platforms – Integration of services and platforms e.g., Aadhaar platform of Unique Identity Authority of India (UIDAI), payment gateway, Mobile Seva platform, sharing of data through open Application Programming Interfaces (API) and middleware such as National and State Service Delivery Gateways (NSDG/SSDG) should be mandated to facilitate integrated and interoperable service delivery to citizens and businesses.

2.5 E-Kranti - Electronic delivery of services

Considering the critical need for transforming e-Governance and promote mobile Governance and Good Governance in the country, the approach, and key components of e-Kranti have been approved by the Union Cabinet on 25.03.2015 with the vision of "Transforming e-Governance for Transforming Governance".

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

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

6. Mobile First - All applications are designed/ redesigned to enable delivery of services through mobile.

7. 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.

8. Mandating Standards and Protocols – Use of e-Governance standards and protocols as notified by DeitY be mandated in all e-governance projects.

9. Language Localization - It is imperative that all information and services in e-Governance projects are available in Indian languages as well.

10. National GIS (Geo-Spatial Information System) - NGIS to be leveraged as a platform and as a service in e-Governance projects.

11. 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.

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.

2.6 Information for All

2.6.1 Open Data platform

Open Data platform facilitates proactive release of datasets in an open format by the ministries/ departments for use, reuse and redistribution. Online hosting of information & documents would facilitate open and easy access to information for citizens. Government shall pro-actively engage through social media. Government shall pro-actively engage through social media and web-based platforms to inform and interact with citizens. **MyGov.in**, a platform for citizen engagement in

ISBN: 978-81-954645-5-5

governance, has been launched by the Hon'ble Prime Minister on 26th July 2014, as a medium to exchange ideas/ suggestions with Government. It will facilitate 2-way communication between citizens and Government to bring in good governance.

Figure 6: My government site

2.6.2 Online messaging

Online messaging to citizens on special occasions/programs would be facilitated through emails and SMS. Open Data platform, Social Media Engagement and Online Messaging, Open Data platform, Social Media Engagement and Online Messaging would largely utilize existing infrastructure and would need limited additional resources.

2.7 Electronics Manufacturing

This pillar focuses on promoting electronics manufacturing in the country with the target of NET ZERO Imports by 2020 as a striking demonstration of intent. This ambitious goal requires coordinated action on many fronts, such as:

a. Taxation, incentives

b. Economies of scale, eliminating cost.

c. Focus areas – Big Ticket Items

   - FABS, Fab-less design, Set top boxes, VSATs, Mobiles, Consumer & Medical Electronics, Smart Energy meters, Smart cards, micro-ATMs.

d. Incubators, clusters

e. Skill development, Enhancing PhDs.

f. Government procurement

g. Safety Standards – Compulsory registration, Support for Labs and MSMEs

h. National Award, Marketing, Brand Building

i. National Centers – Flexible Electronics, Security Forces

j. R & D in Electronics

There are many ongoing programs which will be fine-tuned. Existing structures are inadequate to handle this goal and need strengthening. Demand for electronic goods is increasing with a Compound Annual Growth Rate (CAGR) of 22% and is expected to touch 400 billion USD by 2020. Indian government is also taking several steps to promote manufacturing and investment in this sector, which puts India high on the list of potential places to invest.

ISBN: 978-81-954645-5-5

Figure 7: digital data

2. Digital India Services

Digital India provides many applications. Some of them are listed below.

1. *Un-Reserved Ticket Through Mobile Application (Uts App)*
2. Umang (Unified Mobile Application for New-Age Governance)
3. Udaan
4. Swayam
5. Swatch Baharat App
6. Sugamaya Pustakalya
7. Startup India Portal and Mobile App
8. Soil Health Card
9. SMS-Based Mid-Day Meal Monitoring Scheme
10. Shala Siddhi
11. Saransh
12. Pusa Krishi
13. Project Management System (PMS)
14. Project Monitoring Website for E-Courts
15. Passport Seva Project (PSP)
16. Parivahan Portal
17. National Voters Service Portal (Nvsp)
18. National Scholarship Portal (Nsp)
19. National Ujala Dashboard
20. National Career Service Portal
21. Mraktkosh
22. Mother & Child Tracking System (Mcts)
23. M-Kisan

ISBN: 978-81-954645-5-5

References:

1. Prakash, Amit. "Digital India needs to go local". The Hindu. Retrieved 2017-02-26.
2. Mannathukkaren, Nissim. "The grand delusion of Digital India". The Hindu. Retrieved 2017-02-26.
3. .DNA Webdesk (28 September 2015), Here's what you need to know about the Digital India initiative, Mumbai: Daily News and Analysis
4. "Government School in Remote Bandahalli Village Gets Inspired by make in India" , The New Indian Express, 15 March 2016
5. "Digital India Week: Digital Locker, My Gov.in, and other projects that were unveiled" , The Indian Express, 5 July 2015
6. "GST to take care of many of e-commerce firms' tax issues: IT minister", Live Mint, 21 November 2014
7. "About Bharat Broadband Network Limited", Bharat Broadband Network Limited
8. Subramaniam, Nikhil (22 March 2013), "India's 'fantastic' broadband project that you should know about", Tech2
9. "Under the Digital India initiative: Software Technology Park of India" , The Indian Express, 28 February 2016
10. Budget 2016: Technology initiatives to boost Digital India drive" , The Economic Times, 29 February 2016
11. "Government aims to give 'Digital India' benefits to farmers: PM Modi" , The Times of India, 18 February 2016
12. "Vernacular Push: Govt. Wants Email Providers To Support Regional Email Addresses". Trak.in - Indian Business of Tech, Mobile & Startups. 2016-08-01. Retrieved 2016-10-28.
13. "DataMail: World's first free linguistic email service supports eight India languages - The Economic Times". The Economic Times. Retrieved 2016-10-28. 14
14. "Data Xgen Technologies launches email address in Indian languages". www.deccanchronicle.com. 2016-10-18. Retrieved 2016-10-28.

ISBN: 978-81-954645-5-5