



IAS PARLIAMENT

Information is a Blessing

A Shankar IAS Academy Initiative

GIST OF YOJANA

JULY 2019

Shankar IAS Academy™

Door No 18, New Plot No 259 /109,
AL Block, 4th Avenue, Shanthi Colony,
Annanagar, Chennai - 600040.



I N D E X

YOJANA JULY 2019

1. TOWARDS A NATIONAL DIGITAL HEALTH ECOSYSTEM.....	3
2. EMPOWERING CITIZENS THROUGH e-SERVICES.....	4
3. FOSTERING THE RIGHT ECOSYSTEM - A SOFTWARE PRODUCTS LED APPROACH	6
4. DIGITAL EMPOWERMENT THROUGH 'MAXIMUM GOVERNANCE, MINIMUM GOVERNMENT'.....	7
5. DIGITAL INFRASTRUCTURE : CORE OF GOVERNANCE.....	9

YOJANA JULY 2019

1. TOWARDS A NATIONAL DIGITAL HEALTH ECOSYSTEM

What is the need for National Digital Health Blueprint (NDHB)?

- The National Health Policy 2017 had defined the vision of 'health and wellbeing for all at all ages'.
- Continuum of Care is a concept strongly advocated by the Policy.
- These lofty ideals are sought to be achieved by refactoring the existing schemes and introducing several new schemes including some digital initiatives.
- Citizen centricity, quality of care, better access, universal health coverage, and inclusiveness are some of the key principles on which the Policy is founded.
- All these aspirations can be realized principally by leveraging the power of the digital technologies.
- In the context of India, with its size and diversity, this mammoth task requires that a holistic, comprehensive and interoperable digital architecture is crafted and adopted by all the stakeholders.
- In the absence of such architecture, the use of technology in the health sector continues to grow in an uneven manner and in silos.

What are the objectives of NDHB?

- Establishing and managing the core digital health data and the infrastructure required for its seamless exchange.
- Promoting the adoption of open standards by all the actors in the National Digital Health Eco-system, for developing several digital health systems that span across the sector from wellness to disease management.
- Creating a system of Personal Health Records, based on international standards, and easily accessible to the citizens and to the service providers, based on citizen-consent.
- Following the best principles of cooperative federalism while working with the States and Union Territories for the realization of the Vision.
- Promoting Health Data Analytics and Medical Research.
- Enhancing the efficiency and effectiveness of Governance at all levels.
- Ensuring Quality of Healthcare.
- Leveraging the Information Systems already existing in the health sector.
- What are the Building Blocks of NDHB ?
- While the Blueprint has identified 23 Building Blocks, a few of the critical capabilities of NDHE, addressed by appropriate combinations of the Building



Blocks, are explained briefly along with a schematic of the Blueprint as:

- **Identification:** Unique identification of Persons, Facilities, Diseases and Devices is a key requirement and challenge as well in NDHE.
- The Blueprint handles this requirement through 2 Building Blocks, namely, Personal Health Identifier (PHI), and Health Master Directories & Registries.
- PHI in tandem with Health Locker will facilitate the creation and maintenance of Personal Health Records.
- **Citizen to be in Control:** The need for maintaining the confidentiality, security and privacy of the health records cannot be over-emphasized.
- The Blueprint achieves these complex and mandatory requirements through a combination of a few Building Blocks, namely, Consent Manager, Anonymizer and Privacy Operations Centre.
- Besides these Building Blocks, application-specific features and relevant International standards defined in the Blueprint fortify the privacy regime.
- **Service Access/ Delivery:** Omni-channel access/ delivery are an important capability required in NDHE.
- This is achieved by a combination of Web (India Health Portal), Mobile (My Health App) and Call Centers besides Social Media Platforms.
- The Command, Control and Communication Centre enable real-time monitoring and real-time interventions needed in the NDHE.
- Given the significant spread of smart phones and the prospects of its further growth, The Blueprint emphasizes the 'Mobile First' principle for majority of stakeholder-facing services.
- **Interoperability:** The most important contribution of the Blueprint is its advocacy of Interoperability, which is a pre-requisite for development of integrated digital health services and continuum of care but also for the autonomous development of innovative value-added services by entrepreneurs.
- Two Building Blocks, namely, the Health Information Exchange and the National Health Informatics Standards enable and promote the interoperability of various building blocks.

2. EMPOWERING CITIZENS THROUGH e-SERVICES

What is Digital India Program?

- Digital India is a program to transform India into digital empowered society and knowledge economy.
- The Digital India is transformational in nature and would ensure that Government services are available to citizens electronically.



- It would also bring in public accountability through mandated delivery of government's services electronically, a Unique ID and e - Pramaan based on authentic and standard based interoperable and integrated government applications and data basis.
- What are the achievements and status of Digital India Program ?
- Digital India in the last five years was implemented with a dedicated focus on making use of digital tools and techniques for the delivery of Paperless, Presence less and Cash-less governance in the country.
- Aadhaar enabled Digilocker is enabling paperless governance by providing public documents to citizens digitally and facilitating consent-based data sharing for availing services.
- Aadhaar enabled eSign provides ease of authentication for digital transactions and thereby, eliminates the need for physical presence.
- Aadhaar is the largest de-duplication mechanism for government schemes in the country.
- DI impact on Direct Benefit Transfer (DBT) scheme alone has led to the integration of 440 schemes and saving of INR 1,41,677 crore.
- Digital delivery of services has been strengthened with the help of 3.47 lakh Common Services Centers (CSCs), spread across 2.3 lakh Gram Panchayats in the country that provides digital access to over 350 services especially in rural areas at an affordable cost.
- These centers have also led to empowerment of marginalized sections of the society by creating jobs for over 12 lakh people and by promoting rural entrepreneurs including women VLEs.
- CSCs have also undertaken Stree Swabhinan initiative to create awareness about menstrual health and have set up over 204 sanitary pad units.
- As per the data from Electronic Transaction Aggregation and Analysis Layer (eTAAL), the portfolio of electronic services has grown to 3,102 and an average number of electronic transactions on a daily basis till April, 2019 is around 9.5 crores.
- IndEA aims to offer One Government experience to citizens and businesses by establishing the best-in-class architectural governance processes and practices with optimal utilization of ICT infrastructure and applications.
- Digital Service Standard (DSS) has been notified, which lays down the desirable quality of digital services for an enhanced citizen experience that needs to be achieved by all government entities.
- A National Software Products Mission is planned to implement National Policy on Software Products - 2019 that inter-alia includes nurturing 10,000 technology startups in software product industry



and up skilling of 1,000,000 IT professionals.

- Artificial Intelligence along with other emerging technologies is envisaged to provide solutions for the benefit of citizens in all social sectors / domains.
- National Program on AI has been designed with priority mission areas, namely Healthcare, Agriculture, Education, Smart Cities, Transportation, Cyber Security, Energy, Finance and Indian Languages.
- This program will be implemented in a hub and spoke model, wherein the proposed National Centre on Artificial Intelligence will act as the hub and Centers of Excellence (CoEs) along with Startups will act as spokes.
- CoEs will facilitate startups / industry to work on the development and deployment of AI based solutions and will also aid Research and Academic Institutions in the applied research.

3. FOSTERING THE RIGHT ECOSYSTEM - A SOFTWARE PRODUCTS LED APPROACH

What is National Policy on Software Products 2019?

- The Indian IT Industry has predominantly been a service Industry.
- However, a need has been felt to move up the value chain through technology oriented products and services.
- To create a robust software product ecosystem the Government has approved the National Policy on Software Products - 2019, which aims to develop India as the global software product hub, driven by innovation, improved commercialisation, sustainable Intellectual Property (IP), promoting technology startups and specialized skill sets.
- Further, the Policy aims to align with other Government initiatives such as Start-up India, Make in India and Digital India, Skill India etc so as to create Indian Software products Industry of USD ~70-80 billion with direct & indirect employment of ~3.5 million by 2025.
- What are the aims of this Policy ?
- To promote the creation of a sustainable Indian software product industry, driven by intellectual property (IP), leading to a ten-fold increase in share of the Global Software product market by 2025.
- To nurture 10,000 technology startups in software product industry, including 1000 such technology startups in Tier-II and Tier-III towns & cities and generating direct and in-direct employment for 3.5 million people by 2025.
- To create a talent pool for software product industry through up-skilling of 1,000,000 IT professionals, motivating 100,000 school and college students and specialize 10,000 professionals that can provide leadership.



- To build a cluster-based innovation driven ecosystem by developing 20 sectoral and strategically located software product development clusters having integrated ICT infrastructure, marketing, incubation, R&D/test beds and mentoring support.
- In order to evolve and monitor schemes & programmes for the implementation of this policy, National Software Products Mission will be set up with participation from Government, Academia and Industry.
- A Programme to create 20 domain specific Indian software product clusters around existing industry concentrations, such as in automobile, textile, financial services, electronic manufacturing, energy etc will be initiated.
- A Centre of Excellence will be set up to promote design and development of software products with industry participation.
- A common upgradable infrastructure will be created to support startups and software product designers to identify and plug cyber vulnerability.
- A programme for organizing 20 dedicated challenge grants will also be initiated with an aim to solve societal challenges, such as in Education, Healthcare, Sanitation, Agriculture, persons with special needs (Divyangjan) etc in collaboration with line Ministries, state governments and Industry Bodies/ Think Tanks.

What are the other measures taken by GOI in this regard?

- In order to create a conducive ecosystem, a programme of incubation will be initiated to nurture at least 10,000 software product startups, thereby generating direct and indirect employment for 1 million persons.
- A dedicated Software Product Development Fund (SPDF) with a corpus of Rs. 1000 Crore will be created in the form of Fund of Funds which will participate in venture fund to provide risk capital so as to promote scaling up of market ready Software Products.
- A Programme to support Research and Innovation on Software Products in Institutes of Higher Learning and Research will be initiated with a budgetary outlay of Rs. 500 Crore with participation from Government, Academia and Industry.

4. DIGITAL EMPOWERMENT THROUGH 'MAXIMUM GOVERNANCE, MINIMUM GOVERNMENT'

What are the steps taken by GOI to promote maximum governance with minimum intervention?

- To achieve this, the **Digital India Programme** of the Government is playing an important role in empowering citizens.



- Through the application of digital technologies, the Government is undertaking specific initiatives to improve the delivery systems to ensure that the benefits of the welfare schemes of the government reach directly to the targeted beneficiaries, including the poorest of the poor in a convenient manner without any pilferage.
- The combination of Jan dhan bank accounts, mobile phones and digital identity through Aadhaar i.e. **JAM trinity** is helping the poor to get benefits directly into their bank account.
- DBT brings in efficiency, effectiveness, transparency and accountability in the Government system.
- **Common Services Centers (CSCs)**, as Digital kiosks, are providing more than 350 types of services to citizens in rural areas.
- CSCs are a unique PPP model where micro-entrepreneurs are creating sustainable livelihoods and bringing about a digital revolution in the villages of India.
- The world's largest digital literacy programme, **Pradhan Mantri Gramin Digitat Saksharta Abhiyan (PMGDISHA)**, is bridging the digital divide and helping people to access benefits of the digital world.
- So far, 2.2 crore persons have been imparted digital literacy under the programme.
- **MyGov** is an example of the Government's commitment towards participative governance, bringing citizens and Government closer to one another by democratizing the decision making.
- Today, MyGov has over 80 lakh users and over 2 lakh submissions have been made in 815 tasks.
- The **BPO movement** for smaller towns with 219 BPO units functioning across 97 small cities and 27 States and UTs is facilitating a balanced regional growth, and creating job opportunities in small towns.
- The experience of **UPI** has transformed the digital payment ecosystem in a span of two years, various private players are on-board on unique payment platform that is not only eliminating friction of cash from economy but also creating a new ecosystem for new business models, such as flow-based lending, credit scoring, insurance writing etc.. providing sustainable solutions to serve the needs of the citizens.
- **Government e-Marketplace (GeM)** is attempting to increase the efficiency in public procurement by increasing transparency through an online platform for sourcing.
- This platform is acting as a single localized national market under one roof where all buyers and sellers can interact and carry out their business across the



country regardless of their geography, making GeM a truly digital tool of empowerment and entrepreneurship.

- To leverage Artificial Intelligence and related emerging technologies in the interest of citizens and businesses, a **National Programme on 'Artificial Intelligence'** has been envisaged, to be catalyzed by the establishment of National Centre on Artificial intelligence as a hub along with Centers of Excellence.
- The **National Policy on Electronics, 2019** aims to further promote domestic manufacturing and export to achieve a turnover of approx Rs. 26 lakh crores by 2025.
- The **UMANG App** was launched which aims to bring 162 government services on a single mobile app, with a larger goal to make the government accessible on the mobile phone of our citizens.
- **Digi Locker** serves as a platform to enable free of cost unlimited digital space offered to citizens to securely store and share their documents with service providers electronically after giving due permission.

5. DIGITAL INFRASTRUCTURE : CORE OF GOVERNANCE

What is Digital Infrastructure?

- The Digital Infrastructure is defined as the ability to store and exchange data through a centralized communication system.

What are the key components of Digital Infrastructure for Government?

- **National Informatics Centre (NIC NET):** National Informatics Centre (NIC) was established in 1976, and has since emerged as a "prime builder" of e-Government / e-Governance applications up to the grassroots level as well as a promoter of digital opportunities for sustainable development.
- NIC, through its ICT Network, "NICNET", has institutional linkages with all the Ministries /Departments of the Central Government, 35 State Governments/ Union Territories, and about 625 District administrations of India.
- NIC has been instrumental in steering e-Government/e-Governance applications in government ministries/departments at the Centre, States, Districts and Blocks, facilitating improvement in government services, wider transparency, promoting decentralized planning and management, resulting in better efficiency and accountability to the people of India.
- NIC's PAN-India connectivity and reach is one of its key strengths and this coupled



with its enhanced ability to detect and prevent attacks would collectively upscale the Government's ability to protect its data.

- **National Knowledge Network (NKN):** The NKN will provide nation-wide ultra high-speed backbone/data-network highway.
- Various other networks in the country can take advantage of this ultra high-speed backbone, with national and international reach to create independent and closed user groups.
- The participating institutions can connect to the NKN at speeds of 10 Gbps or to the distribution layer through a last mile connectivity bandwidth.
- The cloud-enabled **National Data Centre** will provide benefits like on-demand access to ICT (Information and Communication Technology) infrastructure for easy availability and quick deployment of applications and standardized platforms of deployment.
- It offers round-the-clock operations with secure hosting for various e-governance applications of Central and State Governments and has the ability to support 35,000 virtual servers.
- **MeghRaj:** This will ensure optimum utilization of the infrastructure and speed up the development and deployment of eGov applications.
- The architectural vision of GI Cloud encompasses a set of discrete cloud computing environments spread across

multiple locations, built on existing or new (augmented) infrastructure, following a set of common protocols, guidelines and standards issued by the Government of India.

- **NIC-CERT** has been setup with the objective of creating a comprehensive framework that integrates world class security components and inbuilt threat intelligence for detection, prevention and incident response.
- Using the tools the team will correlate events that would help in generating a canvas of the attack surface and identify the vulnerabilities and possible exploits.
- NIC / DeitY has created Multi-Layer GIS Platform named "**Bharat Maps**" which depicts core foundation data as "NICMAPS", an integrated base map service using 1:50,000 scale reference data from Survey of India, ISRO, FSI, RGI and so on.
- This encompasses 23 layers containing administrative boundaries, transport layers such as roads & railways, forest layer, settlement locations etc., including terrain map services.
- The **E-way Bill System** has been introduced nation-wide for inter-State movement of goods with effect from 1st April, 2018.