e-KRANTI

National e-Governance Plan (NeGP) 2.0

DRAFT DETAILED PROJECT REPORT

Department of Electronics & Information Technology (DeitY)

Ministry of Communications & Information Technology,
Government of India,
New Delhi – 110003

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1. Introduction

The National e-Governance Plan (NeGP) was designed and approved for implementation in 2006. Prior to this, there had been several efforts in implementing e-governance projects in various departments and agencies both in the central and state governments. NeGP attempted to create an overarching framework and give a major thrust to e-governance in India. In the past 8 years, NeGP has achieved remarkable success in its implementation. As on date, 24 out of the 31 Mission Mode Projects (MMPs) under the NeGP are delivering services to the citizens, businesses and other stakeholders. Out of the 252 electronic services envisaged under these projects, 222 are operational.

The Prime Minister's Committee on NeGP, the highest policy decision making body on NeGP, during its meeting on 23rd November 2011 decided to constitute two Expert Groups, one on Human resource policy in e-governance and the other to review NeGP. Accordingly, an Expert Committee to formulate HR policy for e-governance chaired by Shri Nandan Nilekani and an Expert Group to review the National e-Governance Plan chaired by Dr. Sam Pitorda were set up. The Expert Group on NeGP reviewed the progress made in implementation and business process reengineering achieved by the 31 MMPs under the NeGP and, in its report submitted in 2013, suggested measures for addressing the critical issues to accelerate the implementation of NeGP and delivery of electronic services. The Expert Group concluded that NeGP has not been able to make the desired impact and fulfill all its objectives satisfactorily on time. It emphasized the need to establish better systems of accountability for implementing the MMPs. The Expert Committee on HR Policy, in its report submitted in 2013, emphasized the acute need for strengthening the human resources for e-Governance in India.

A SWOT analysis of NeGP brings up several issues in its implementation that need to be addressed immediately. This analysis is presented below. It derives from the reports of both the expert groups mentioned above and the experience of DeitY in working with various ministries and departments implementing the 31 MMPs. This analysis is presented in Table 1.

Table 1: A SWOT analysis of NeGP

STRENGTHS	WEAKNESSES
1. There is a general awareness, both within & outside the government, of the importance of e-Governance 2. 24 out of 31 MMPs have gone live and produce over 11 Cr transactions p.m (TPM). 3. There is a significant increase in the number of professionals and experts working on eGov, both within government and in the industry. 4. Basic ICT infrastructure is available in all States 5. Significant funding has gone into eGov sector, both from GOI to States and by States themselves. 6. There has been a significant increase in the political support for the eGov program. 7. NeGP has catalyzed the movement towards bringing in legislations on the citizen's right to time-bound delivery of public services. 8. The environment created by NeGP has spawned a very large number of eGov projects, though outside NeGP, thus expanding the portfolio of services available online.	1. NeGP has not become a national movement and could not produce the expected impact on the common man, especially in the rural areas. 2. There are significant time overruns. 3. Emphasis on Standards and interoperability is weak. 4. The degree of process-engineering is quite low 5. Mission-approach is lacking in implementation. 6. Age-old approval procedures have hampered pace and stifled enthusiasm. 7. There is a woeful lack of HR dedicated to eGov 8. Adoption of PPP model has not been adequate. 9. Monitoring & Evaluation systems are weak. 10. There is no accountability for timely implementation and for producing qualitative outcomes. 11. Problems of connectivity in rural areas continue to plague the program. 12. Sub-optimal use of the ICT infrastructure is a major concern.
OPPORTUNITIES	*THREATS*
1. The huge advancements in the Technology landscape during the last 7 years, enable more efficient, cost-effective and agile solutions to be designed now. 2. The advent of the Cloud enjoins the agencies to embrace the concept of shared infrastructure, platforms & services. 3. New business models that are based on OpEx rather than CapEx as in the past, are more feasible for adoption now. 4. A great leap in quality of service delivery is now possible, through a radical process re-engineering, breaking away from the conservative incremental approach that has so far been widely followed. 5. With the acute need having been recognized for	1. Allowing NeGP to proceed along the current direction and at the current pace may result in mass scale disillusion leading to e-Governance losing its appeal for **transformation** of the public sector. 2. The existing e-Gov projects would become obsolete or inefficient, if a fresh energy is not injected into them. 3. A large number of islands of IT activity will be created, which do not admit either bridging or integration. 4. Several countries competing with India on the software front, can take a strong lead in implementing eGov projects globally and capture the market share that India could otherwise get.

a large number of eGov professionals for pursuing the ongoing programs, and more importantly, to take the program to a new level, there is a huge opportunity to establish an institution of international stature, for Capacity Building in the area of e-Governance. With its inherent strengths in the software & ICT sector, and with a large number of Indian IT companies already having a strong international presence, e-Governance can be a strong vertical that can move the IT exports to a higher level & help the country achieve the target of $ 300 billion of IT turnover by 2020.	5. *India could lose the opportunity to leapfrog in the quality and nature of citizen services offered through eGov, if she does not take advantage of the new generation technologies like the cloud, the big data analytics, social media and mobile computing, besides In-Memory Databases, Software Defined Networks, 4G and LTE. A technology refresh is the need of the hour for NeGP.*

It is evident from the foregoing analysis that there is an immediate need for making substantial improvements to the current framework of NeGP. It is also clear that the weaknesses and threats under the current framework may adversely affect the implementation of various MMPs and result in sub-optimal outcomes. On the other hand, the opportunities present a compelling case for a comprehensive revision of the entire e-governance framework in the country to achieve full potential of e-governance in improving delivery of government services to citizens and other stakeholders.

It is in the above context that NeGP 2.0, christened as "e-Kranti", has been conceptualized. The e-Kranti framework builds on the experience gained over the last eight years of implementation of NeGP. However, it proposes new and substantially revised models of implementation and service delivery taking into consideration the strengths, weaknesses, opportunities, and threats for the current NeGP as analyzed above.

2. Vision and Objectives

The main thrust of e-Kranti (NeGP 2.0) is to accelerate the implementation of e-governance in the country to achieve the NeGP's vision of "Making all government services accessible to the common man in his locality, through Common Service Delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realise the basic needs of the common man".   The vision of e-Kranti is "Transforming e-governance for transforming governance". The mission of e-Kranti is "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 & reliability of such services at affordable costs." This transformation in e-governance will be achieved through undertaking transformational BPR, adopting emerging technologies like cloud and mobile, providing integrated services via interoperable systems and building sustainable organizational and human resource capacities.

The objectives of e-Kranti' are as follows:
1. To redefine NeGP with transformational and outcome oriented e-governance initiatives
2. To enhance the portfolio of citizen centric services
3. To ensure optimum usage of core ICT infrastructure
4. To promote rapid replication and integration of e-governance applications
5. To leverage emerging technologies
6. To make use of more agile implementation models

Value Proposition of e-Kranti

An e-governance initiative included as an MMP under e-Kranti would be facilitated through the following mechanisms across various stages of its lifecycle:
1. On demand provisioning of the next generation core and common ICT infrastructure under DeitY such as :
    a. National Information Infrastructure (NII) comprising of:

    i. Next generation hi-speed network connectivity leveraging NKN, SWAN, and NOFN and reaching upto the village panchayat level

    ii. GI Cloud (Meghraj), National Data Centre (NDC) and State Data Centre (SDC) for cloud services, backend storage of data and application hosting

   b. e-Sangam {National Service Delivery Gateway (NSDG) / State Service Delivery Gateway (SSDG)} acting as a middleware for integrating various Central / State Departments' applications

   c. Mobile platform under the Mobile Seva project for delivery of mobile-based services through various channels such as SMS, USSD, IVRS and mobile apps

2. Consultancy support in terms of functional and technical appraisal at various stages of the project

3. Monitoring & Evaluation of the project under the NeGP 2.0 framework

4. Sharing of best practices and standards to facilitate integration of services and enhance interoperability of services for seamless, single-window delivery of services

5. Exploring and facilitating Departments to provide end-to-end integrated service delivery, which is cross-cutting across Departments

3. Principles of e-Kranti

3.1. Transformation and not Translation

a. Any project proposal to be included in e-Kranti should satisfy the pre-requisite of a substantial transformation in the quality, quantity and manner of delivery of services and/or a significant enhancement in productivity and competitiveness.

b. It is recommended that each such proposal is also accompanied by a statement of changes in the Act and Rules or the intention to bring in a new legislation so as to ensure legal sustainability of the proposed transformation.

c. If the degree of transformation in the MMPs already implemented or being implemented is inadequate, they should be required to undertake a dose of transformation through appropriate changes to the scope of the earlier MMP.

d. Transformation can be in several forms, like substantial process changes, revamping of the delivery points through a new look and feel, predefined service levels, introduction of technology in innovative ways, abolition of manual systems, introduction of self-financing business models for financial sustainability and adoption of innovative models for delivery of services.

3.2. Integrated Services and not Individual Services

Most of the e-Governance projects within and outside NeGP were implemented to render department specific services to the citizens by automating department specific business processes purely from the stand point of the implementing departments/agencies. In the present model, in order to obtain a particular e-service, the citizen or business often needs to provide a number of supporting documents with the application for getting the service. Some of these attachments are issued by authorities outside the department providing that particular e-service. The solution lies in conceptualizing, designing and implementing a set of services which are cross-cutting and integrated. One such MMP that conceptualized such integrated and cross-cutting services is eBiz, which has gone live with some of the envisaged services. There has been a significant progress in terms of integrating the front-end delivery points for providing a number of citizen services across the same counter. Many states have recently

come up with integrated front end delivery systems. However, to ensure that the services are truly integrated in terms of backend processes and front-end delivery to the citizens and other stakeholders, there is need to establish a common middleware and integrate the back end processes. **In other words, providing integrated services on an end-to-end basis should be the USP and the hallmark of e-Kranti**. The extensive and perhaps, compulsory use of Aadhaar for identification of residents, and the use of e-Pramaan framework (**http://epramaan.gov.in)** developed by DeitY for authentication of individuals, are recommended in this direction.

Figure 1 presents an integrated service delivery framework for e-Kranti.
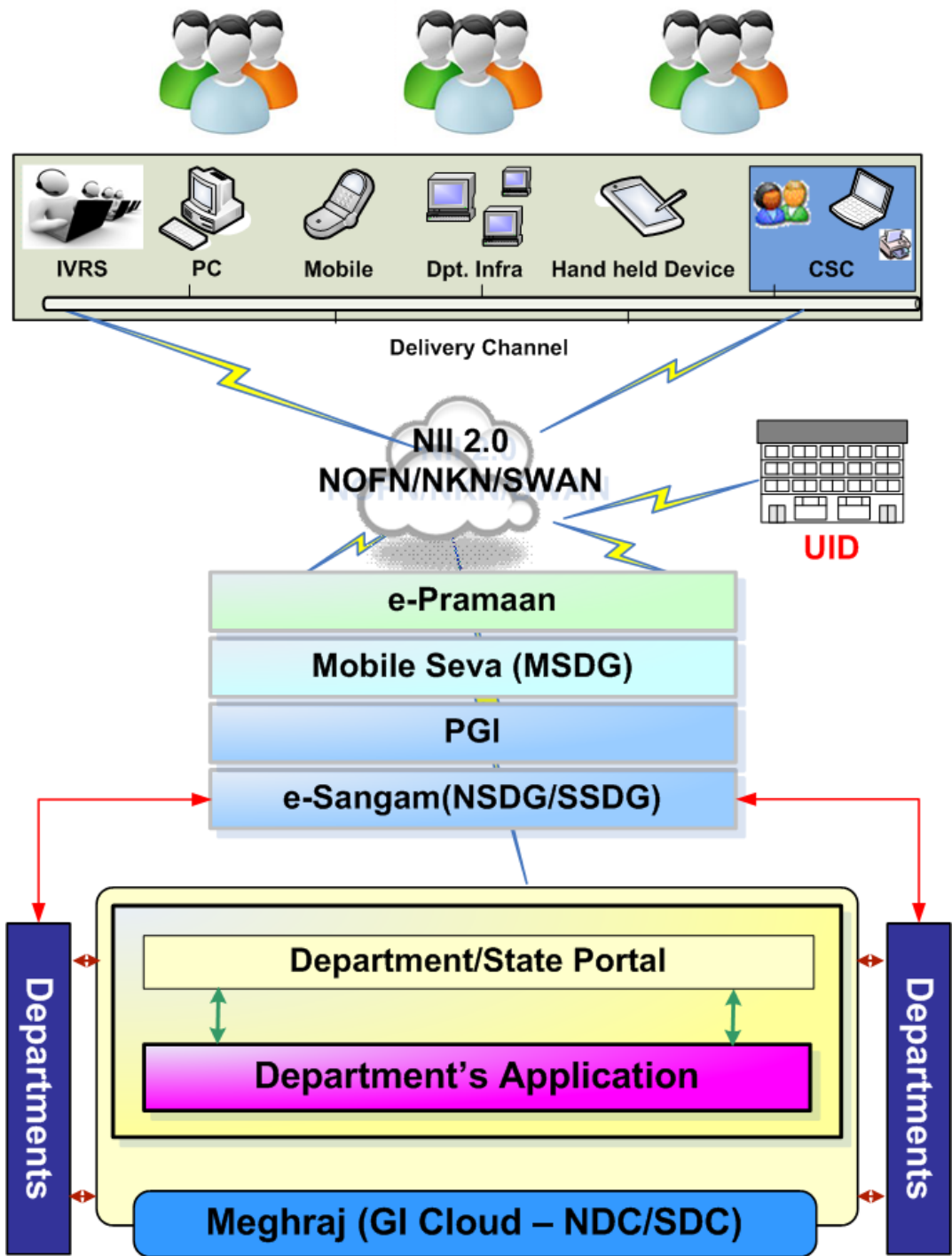
Figure 1: An integrated service delivery framework for e-Kranti.

Delivery channel: With the latest technological advances, citizen can now have multiple modes to access a service. These include mobile phones, tablets and hand-held devices. These devices facilitate real-time access to services while on the move. The penetration of mobile phones is also much higher in the country when compared to access to Internet. Voice is another channel for service delivery that has emerged recently. For voice based access, both an automated interactive voice response system (IVRS) and a traditional call centre model can be used.

Front-end: With the mandate of providing all the government services through an ICT enabled mechanism, citizen/business can now send request to a portal from multiple delivery channels and the delivery shall happen with a concept of process driven "single window clearance". The portal shall facilitate transactional services including online submission of application forms, online payment for registration, renewal and tracking of the status of application, grievance redressal etc.

Middleware: The service request and its type get identified with the help of middleware that orchestrates and channelizes the request across various departments and department applications through a combination of gateways and applications such as NSDG, SSDG and MSDG. This ecosystem is further aided by provisioning of authentication through e-Pramaan and UID.

Back end: At the back end, reside department specific application and its data. All the data disseminations (push/pull) shall take place through this layer. Besides, this layer will further facilitate DWH/Data Mining and Business Analytics.

3.3. GPR to be mandatory in every MMP

One of the criticisms of NeGP is that inadequate attention has been given to process reengineering with a result that the citizen has to go through several avoidable preliminary steps for seeking a service and also needs to make a number of trips to the service centre, before his/her request is fulfilled. There are a lot of non-value adds (NVAs) in the entire process. Government Process Re-engineering (GPR) is, therefore a sine qua non for e-Kranti. GPR itself can be taken up along the following lines.

a. It is necessary to mandate GPR as the first step in all the new MMPs without which a project may not be sanctioned.

b. A framework and a yardstick for measuring the degree of process reengineering proposed/undertaken in each MMP should be designed immediately and applied. Only the projects meeting the prescribed GPR criteria and crossing the benchmark score should be sanctioned / funded.

c. The degree of GPR should be assessed for the existing MMPs and necessary correctives applied.

d. Comprehensive process reform should be undertaken by the departments adopting the principles like

    i. elimination of NVAs,

    ii. process optimization,

    iii. standardization,

    iv. integration,

    v. automation and

    vi. Self-service.

e. Each department contemplating an e-Governance project should be required to reengineer all its forms, business rules, work flows, reports, MIS, dashboards, Knowledge Management Systems and delivery channels.

f. In so far as most of the government processes have certain commonalities, especially at the granular level, DeitY should undertake a time bound and cross-cutting project of fundamental GPR, which involves identification of Elemental Govt. Processes (EGPs), reengineering and optimizing each of the EGPs and publish them widely for use across all e-governance projects uniformly.

g. State and local variations should also be captured while undertaking GPR.

3.4. Infrastructure on Demand

A good portion of the energies of the departments and ministries is spent on aspects related to design, procurement and establishment of information infrastructure of various types like data centre with its own hardware and software, networks with redundancies and other software platforms. Instead, the ministries and departments should be focusing their efforts on ways to achieve transformation in service delivery, as emphasized in the foregoing sections. DeitY has established core infrastructure like State Data Centres, State Wide Area Networks, Common Service Centres and State Service Delivery Gateways, which are facilitating to bring public services closer to citizens, besides supporting Government to Business (G2B) and Government to Government (G2G) services. Other ongoing initiatives, such as the National Optical Fibre Network, National Data Centres, NICNET and National Knowledge Network (NKN) are also expected to play an important role in the overall e-governance and ICT landscape of the country.

3.5. Cloud by Default

Cloud computing has the potential to transform the way Information Technology is consumed and managed, resulting in improved cost efficiencies, accelerated innovation, faster time-to-implementation, moving from CAPEX to OPEX based business model, rapid replication and the ability to upscale applications on demand.

The flexibility, agility, cost effectiveness and transparency offered by the cloud technologies are factors that need to be taken serious note of while designing and hosting of applications both in the public and private sectors alike. The cloud policy[1] should be widely implemented both at the central and the state governments as well as in the PPP projects. 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. Adoption of cloud can fast track the implementation of project as it simplifies hardware and software requirement. Therefore, the emphasis on adoption of cloud should be preferred first choice right from the inception of the project to implementation of architecture of each e-gov project.

3.6. Mobile First

As on January 2014, the number of telecom subscribers has increased to more than 92 crores, out of which around 40% reside in rural areas and the overall teledensity is around 72% in the country. Low cost handsets, smart phones and low cost tablets would be ubiquitous in the near future given the exceedingly high growth rates seen recently in the market. Given this situation and the trends, it is necessary that a majority of the applications are designed/ redesigned with an aim to deliver their services through mobile devices as the most preferred option. The Mobile Seva project of DeitY has achieved tremendous success in creating a centralized cloud based Mobile Service Delivery Gateway (MSDG) for delivering electronic services through various mobile channels, such as SMS, mobile apps, USSD and IVRS. It has already brought over 1000 government departments across the country on board this platform for delivering a wide range of public services. Mobile Seva should be used by all government departments and agencies in the country for their mobile based services.

3.7. Mandating Standards and Protocols

Standards in e-Governance are critical to ensure sharing of information, seamless interoperability of data across e-Governance applications and integrated service delivery to citizens and businesses in India. With NeGP as the prime focus, large investments are being

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[1] http://deity.gov.in/sites/upload_files/dit/files/GI-Cloud%20Adoption%20and%20Implementation%20Roadmap(1).pdf

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.

Currently, the e-governance standards notified by DeitY through executive orders are recommendatory in nature. They do not have statutory value nor can they be mandated. It is necessary to bring in a special set of rules under the proposed EDS Bill to regulate and mandate e-governance standards. E-governance Standards should also include the generic standards that DeitY develops as also the domain specific standards that line ministries develop. Since, the field of e-governance standards need dynamic and dedicated approach on regular basis, a National Institute for e-Governance Standards should be established to undertake this responsibility. The line ministries should give priority at the highest level to the MDDS committees constituted for formulation of domain standards, under the overall guidance of the National Institute for e-Governance Standards.

3.8. 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. Internationalization is the process of designing a software application so that it can be adapted to various languages and regions by reducing engineering efforts. On the other hand, "Localization" signifies adaptation of a product, application or document content to meet the language, cultural and other requirements of a specific region (a "locale"). Thus, apart from translation of the UI and documentation, it covers numbers, date, time formats, currency, keyboard, collation, symbols, icons, colors and many more.

3.9. National GIS

National Geographic Information System (NGIS) is a demand driven project to develop a mechanism to ingest geo-spatial data held by a number of organizations such as Survey of India, NIC, MoES, etc. and develop decision support tools. It is a well-focused mission oriented programme for incubating an organization entity to institutionalize and operationalize GIS needs for decision support, development needs of the civil society and security vetting of NGIS

products. The NGIS is proposed to be a new Mission Mode Project (MMP) under NeGP 2.0 and a part of the overall ecosystem of e-governance having a service & outcome orientation. 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.

3.10. Security and Electronic Data Preservation

a. 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 should be followed.

b. 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. In this regard, the E-Governance Standard for Preservation Information Documentation of Electronic Records notified by DeitY should be followed.

4. Institutions and Instruments for e-Kranti

4. 1. National e-Governance Academy

It is increasingly being realised that e-Governance projects manifest as complex socio-technical systems and they often transcend disciplinary boundaries. It is important that suitable capacities are created across all levels of the government to handle the complexities inherent in e-Governance initiatives.

DeitY proposes to set up a National e-Governance Academy with a vision to serve as "*A global centre of excellence in e-Governance through education, training, research and practice for transforming governance*". This is consistent with the findings of various expert groups and committees which were set up in the past few years to look into various aspects of e-Governance. A detailed project report laying out the broad strategies for establishing such an Academy and its key operational aspects, including legal and organizational structures, human resources, infrastructure and financial model has been prepared.

Based on a review of relevant literature and discussions with a wide variety of experts, it is recommended that the broad mandate of the proposed Academy should lie at the intersection of Information and Communication Technologies (ICTs) and governance. The proposed Academy should have faculties/centres devoted to all disciplinary areas relevant for e-Governance. To suitably leverage existing capacities in centres/institutes of repute, the Academy is proposed to be organized in a hub and spoke model. The core central hub would be engaged in (a) interdisciplinary training for senior policy makers, (b) education and research programmes and (c) advisory and consulting assignments, apart from coordinating the overall activities of the Academy. It would have faculty from the relevant e-governance academic disciplines and practice areas. The Academy will also have specialised centres in partner academic institutes. In addition, suitable partnerships with existing training institutes at the national and state levels shall also be forged.
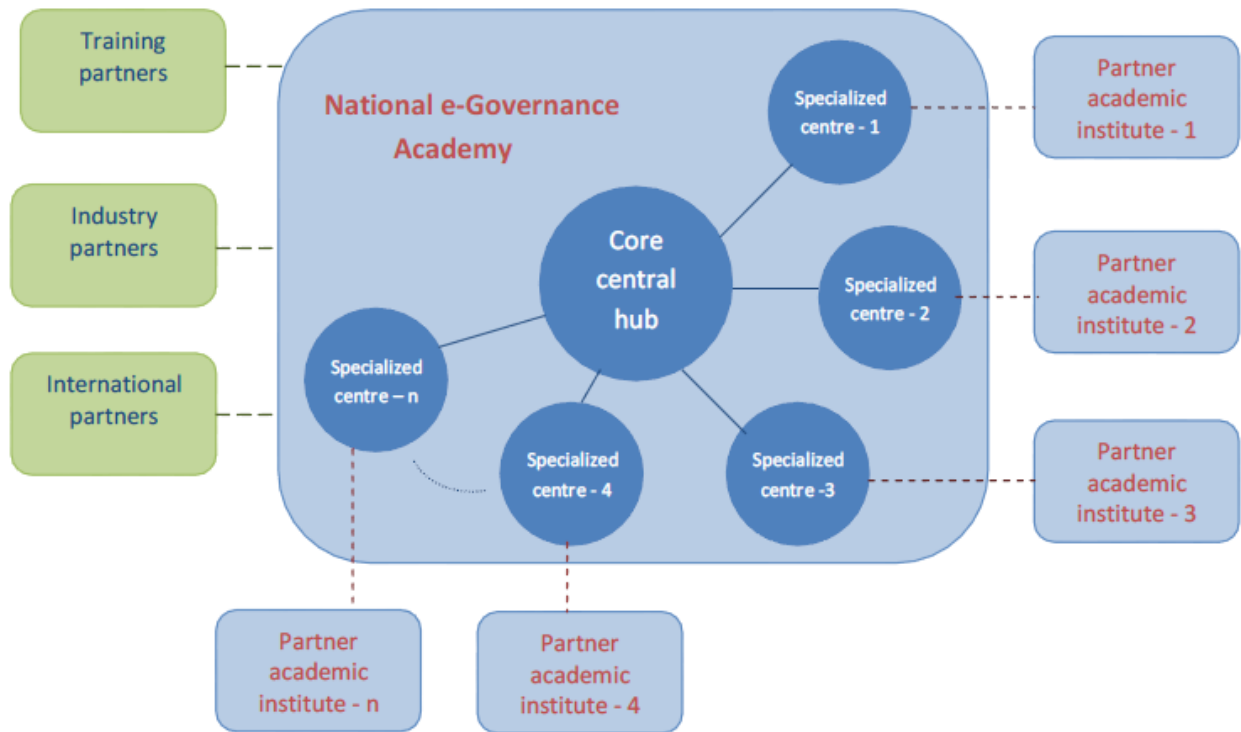
Figure: The proposed organization structure

The Academy shall strive to become a global centre of excellence in e-governance through education, training, research and practice for transforming governance. It shall engage in five major activities in the area of e-Governance – training of working professionals, conducting specialized education programmes at masters and doctoral levels, engage in research on aspects of relevance to the area, provide practice and advisory services and facilitate knowledge management and sharing.

An autonomous registered society is being recommended as the legal form of the proposed Academy as it is found to be easier to set-up, manage and operate and has less legal compliance requirements. The Minister in charge of DeitY shall be the Chairperson of the General Body while the Secretary, DeitY shall be the Vice-Chairperson. It is proposed that the size of the Governing Board shall not exceed 15. The Secretary, DeitY shall be the ex-officio Chairperson of the Board. An Academic Council with sufficient autonomy to look into all academic and research matters of the proposed Academy shall be formed.

The Director of the proposed Academy shall be a person of proven track record in the field of e-governance and shall be selected by an appropriately constituted search committee. The core central hub of the proposed Academy shall have about 20 faculty members with appropriate qualifications and experience in the area of e-governance. The faculty shall represent a suitable mix of academicians and practitioners from the government and industry. At every specialized centre in a partner academic institute, up to two full-time faculty members may be engaged by the Academy. Every specialized centre in a partner academic institute shall also engage up to three faculty members, preferably from the host institute, to work on a part-time basis on specific programmes and assignments related to training, teaching, research and advisory services. In order to attract specialized talent from the industry, the Academy shall have the provision of hiring consultants, including experts from outside the country, on shorter tenures.

The Academy shall strive to secure grants to establish Chair Professorships, so that eminent faculty could be invited to occupy these chairs, which while positively impacting the activities of the Academy, also increases its stature.

The core central hub of the proposed Academy may be located in the National Capital Region. The Academy is expected to scale up its operations to cater to about 350 trainees and students at the core central hub at any given point of time over a 5-6 year period. The capital expenditure for setting up the proposed Academy shall be covered by grants and donations from government of India and other patrons from Industry and relevant Industry bodies. The state government where the core central hub of the Academy shall be located should be persuaded to donate land for its campus. Operating expenditure shall be partially supported by fees from education and training programmes as well as surplus from sponsored research and advisory services provided by the Academy. It is expected that a core funding support will be required from Government of India at all times.

4. 2. E-Governance Knowledge Portal

We need to create a repository of e-governance projects, success stories and innovations which have had a substantial transformational effect on service delivery. Routine e-governance projects which do not have such a transformational effect are to be carefully excluded for getting a place in the repository. The earlier efforts of DeitY in creating such a portal called eGovWorld, could not succeed due to various reasons. Renewed efforts should be made to establish a knowledge portal with a focus on transformation. The attempt should be to create a knowledge portal that will be the equivalent to a Wikipedia for e-Governance.

4. 3. e-Governance Impact Index

Through e-Taal (www.etaal.gov.in), a convenient mechanism for aggregating the e-transactions for monitoring the progress of various e-governance projects has been established. The portal is still in its evolutionary stage. There is a significant need for improving the classification of e-services and in judging the eligibility of certain services to be linked to e-Taal. Relevant weightages needs to be assigned to e-services integrated with e-Taal by defining parameters to measure service quality and developing a framework for categorization of e-services. In addition, e-services may be ranked based on various parameters such as richness of workflow, use of digital certificates, e-payment integration, mobile enablement, local language interface, integrated service, real time v/s batch mode updates, mandatory digital service (abolition of manual mode delivery) and number of visits required for availing a service, etc.

These enhancements christened as e-TAAL 2.0 need to be implemented quickly so that the consistency, reliability and credibility of the figures being reported on e-Taal increases significantly. More importantly, in the light of the focus on transformation that e-Kranti demands, there is an imminent need to introduce quality dimensions in the functionalities of e-Taal.

4.4. Effective use of Social Media

Social media have a significantly large presence in India. Recognizing the power of the social media, DeitY has notified a policy on the use of social media by the government departments and agencies. However, the possibility of enhancing the value of e-governance projects through the appropriate use of social media has not been so far given due consideration. Social media can be used for engaging the citizens in (i) the design of innovative and transformational projects aimed to deliver e-services, (ii) receiving feedback on the quality of e-services and (iii) grievance redressal arising out of non-compliance to committed service levels etc.

4.5. Transforming the Delivery Channels

It is reasonable to assume that at least for a decade to come, the citizens, especially those in the rural areas, will continue to have significant dependence on computer and Internet kiosks operated by agents for availing e-services of various kinds. In view of this, it is necessary to invigorate and enlarge the CSC program with the following specific objectives in view:

a. Establishing delivery outlets to provide department-specific services in the geography served by a CSC should be discouraged. The proliferation of parallel outlets in the same geography by different agencies should also be discouraged.

b. The CSCs should be legally authorized to provide statutory services like certificates, land records etc.

c. The responsibility for providing connectivity of the kiosks should be taken by the government, possibly through NOFN.

d. The look and feel of the kiosks should be revamped, made uniform within each state so as to establish it as a **brand** and to see that the services are delivered to citizens in a convenient environment and ambience.

e. A complete harmonization of delivery mechanism should be established to handle both the G2C and B2C services.

4.6. Awareness and Communication

As alluded to earlier, NeGP could not garner a name and fame so far, despite the large number of e-transactions happening, on account of the fact that NeGP does not have an appealing brand name. This should be overcome through popularizing an appealing name like e-Kranti. Besides this, the on-going efforts of creating awareness and communication should be significantly enhanced in more innovative ways so as to increase the visibility of the program. A strong grievance redressal mechanism should also be established and publicized so as to provide a feedback loop on the quality of services.

4.7. Fast Tracking Approvals

Experience has shown that e-governance projects most often get bogged on with procedure. The need to observe stringent financial rules minutely places significant constraints on the pace and quality of implementation of e-governance projects. It is therefore in general advisable to design a special code of financial procedures tailor-made for the implementation of e-governance projects. Some major suggestions are made below:

a. It is observed that most of the projects get stuck at the starting point itself in the matter of assigning work to a suitable consultant to conceptualize and design the project. While the cost of such consultancy may be less than 1% of the total project cost, almost a year is lost in most of the e-governance projects while appointing the project consultant. 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.

b. Once the DPR of a project is approved by the Competent Authority, the Empowered Committee constituted for the purpose should be truly empowered to take all subsequent decisions, which should be implemented soon after the minutes of the EC are approved. In the absence of such a mechanism it is impractical to make anyone accountable for time overrun and the consequent cost overrun in major projects.

c. All well-designed and well-implemented e-governance projects result in enhanced productivity, efficiency, transparency and very often result in savings to the Govt. Keeping this in view, 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.

4.8. Introducing New Business Models

One of the weaknesses of NeGP has been in the area of **implementation** and to some extent in the **quality of service delivery**. At a very broad level, it is to be observed that the timeliness of implementation, quality of service and the impact created on the stakeholders has been much better in projects implemented on a PPP or on an outsourced model. MCA 21 and Passport Seva Projects are examples in point. Considering this, it may be necessary to prescribe an appropriately designed PPP model or outsourcing model and for entrusting turnkey responsibility for service delivery and for compliance to the SLAs. PPP/outsourcing should be the default implementation model [as against a completely in-sourced model] in any new project to be taken up under e-Kranti unless there are compelling reasons to justify the in-house approach. A few other ideas that need to be promoted and/or mandated in this area are mentioned below:

a) Levying user charges should be the default revenue model. This will ensure financial sustainability, proper maintenance and upgradation of e-governance projects and service delivery outlets.

b) Wherever possible, a completely OpEx-based model should be designed for creation of infrastructure and a cost-per-transaction model for delivery of services.

c) New licensing / operational models will have to be evolved keeping in view the cloud, NII, NOFN and the eGov and mobile App Stores that are going to be the new realities.

4.9. International Co-operation in e-Governance

India has already made a good name globally in the areas of IT Services and BPO. Indian IT companies have a presence in over 70 countries globally. As a part of the National IT Policy 2012, we have envisioned that India would reach an IT turnover of US$ 300 billion by 2020, up from the current level of over US$ 100 billion. The target for IT exports is US$ 200 billion. It is not possible to achieve these targets unless new themes and new markets are explored and exploited. In this regard, e-governance can be a good market segment, with large number of Indian IT companies having enough experience in implementing large projects for the central

and state governments. It is possible to tap the e-governance market potential in the region and in the African countries. Government supported organizations like CDAC and ERNET and government-promoted organizations like NISG can enter into appropriate agreements with the industry bodies like NASSCOM or form a joint venture in a PPP mode to gain entry into these markets.

4.10. Use of ICT to Enhance National Productivity

While India has been contributing significantly to increase in productivity of various sectors of economies outside India, inadequate attention has been paid on the domestic side. ICT interventions can result in significant enhancements in the productivities of various sectors of the economy in India. A major collective initiative has to be undertaken to inject tools of ICT, preferably developed domestically, into all the major manufacturing sectors, with a special focus on MSMEs.

5. Implementing e-Kranti: New Initiatives by DeitY

5.1. National Information Infrastructure 2.0 (NII 2.0)

It is now pertinent for the Government of India to initiate steps for a National Information Infrastructure 2.0 (NII 2.0) as a significantly upgraded network and cloud infrastructure from technological, administrative and e-governance perspectives. NII 2.0 shall consolidate and integrate the currently available and proposed network infrastructure in the country such as NKN, SWAN and NOFN and leverage the latest network technologies such as Software Defined Networks (SDN) to provide network infrastructure to government departments on demand. It shall also leverage the Cloud infrastructure being created under the Meghraj initiative of DeitY to meet increasing demand from government departments for infrastructure, platform and software as services. NII 2.0 shall also effectively address the challenges that remain in the current infrastructure – capacity constraints, cyber security vulnerabilities, non-availability of robust last mile connectivity, limited network redundancy and sustainable business and operational models.

With a vision "To c*reate a scalable and secure public information infrastructure that leverages existing ICT assets, human resources and next generation technologies to provide universal electronic access to various governance, social sector and priority sector services for the citizens and businesses of India*", NII 2.0 shall emerge as a secure and scalable public information infrastructure providing ICT infrastructure on demand to government departments and agencies. It will leverage existing ICT and human resources available in the country at all levels to optimize capital investment and operating expenditure.

The main objectives of NII 2.0 shall include:

- Establishing an appropriate institutional structure that addresses the requirements of policy making, operational management and regulation of the proposed infrastructure.

- Ensuring privacy protection of all users and service providers to the extent required by legal provisions and promoting free and fair competition between service providers and technologies.

- Creating a single, secure communication network from the current fragmented infrastructure that will provide data, voice and video services on the same platform.

As a matter of policy, NII 2.0 will be primarily a public information infrastructure. It will cater to provisioning of various G2C, G2G and G2B services including information at centre, state headquarters, districts, blocks and Gram Panchayats. NII 2.0 Infrastructure will comprise of the necessary infrastructure to provide the desired level of connectivity up to the village level. The infrastructure supplier ecosystem for NII 2.0 may consist of bandwidth providers, computing / storage systems providers and networking equipment providers. NII 2.0 Services will comprise of an ecosystem which would allow application service providers and users (mainly government departments and agencies) to connect to each other.

NII 2.0 Architecture

NII 2.0 is primarily for delivery of infrastructure services and it will leverage MeghRaj and other private and public clouds. To make these services accessible by all, supporting network infrastructure will be created by integrating core infrastructure of SWAN, SDCs, NKN, NOFN and other existing infrastructure. Super Core, Core and District PoPs currently operational under NKN will be leveraged and upgraded as per requirements of NII 2.0 at each of these levels. Similarly, NOFN PoPs will be leveraged to reach and provide connectivity at block and GP level. Any government department can leverage NII 2.0 by connecting at any NII 2.0 PoP to have bandwidth provisioned for accessing services residing in the Cloud.
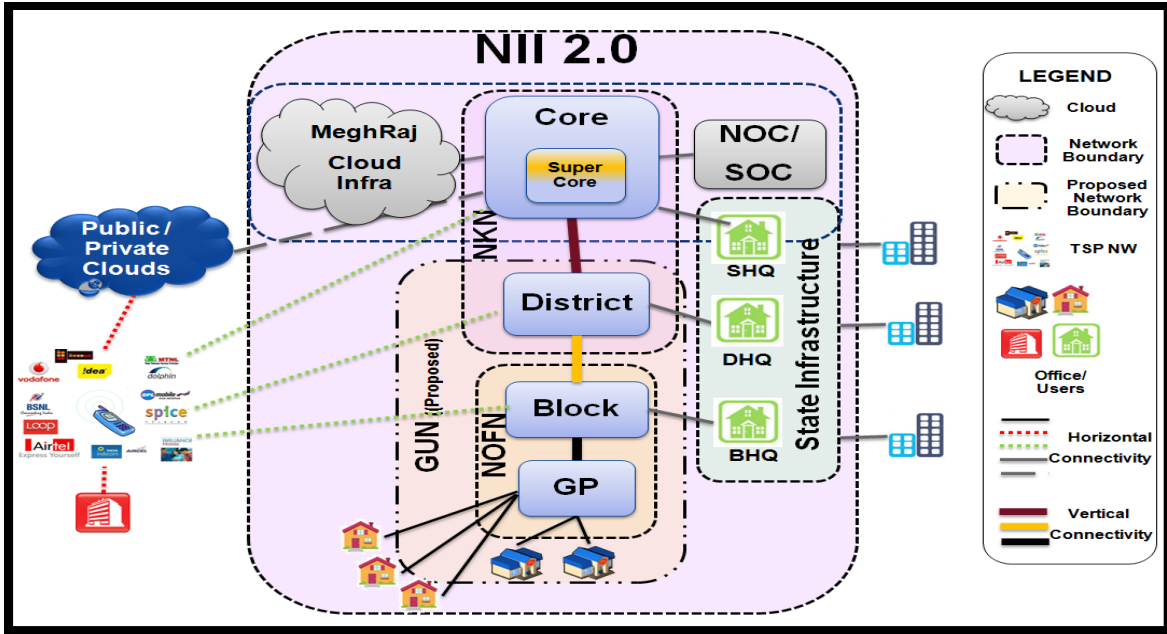
Figure: NII 2.0 Infrastructure

Institutional and Policy Mechanisms for NII 2.0

DeitY will act as an administrative body with the strategic role and control in providing strategic guidance, publishing policies, guidelines and standards, ensuring audit conformance and providing financial support to the NII 2.0 programme. An Apex Committee chaired by Secretary, DeitY with representation from central ministries/departments, state governments and other government entities is proposed to be set up as the highest level policy making body for NII 2.0. A national level authority namely "National Information Infrastructure Authority of India" (NIIAI) is proposed to be constituted to establish governance mechanisms, evolve standards, implement policies, operate and manage infrastructure components of NII 2.0 such as data centres, cloud utilities, networks, and security. Figure 3 shows the proposed institutional structure for NII 2.0. The national level authority shall ensure appropriate capacity development of personnel and optimization of financial resources. To facilitate the user departments/states, a suitable combination of options which include public-private partnerships (PPP), long-term rate contracts should be provided by NIIAI. NIIAI may, however, procure requisite equipment for the user departments/states in case of need.
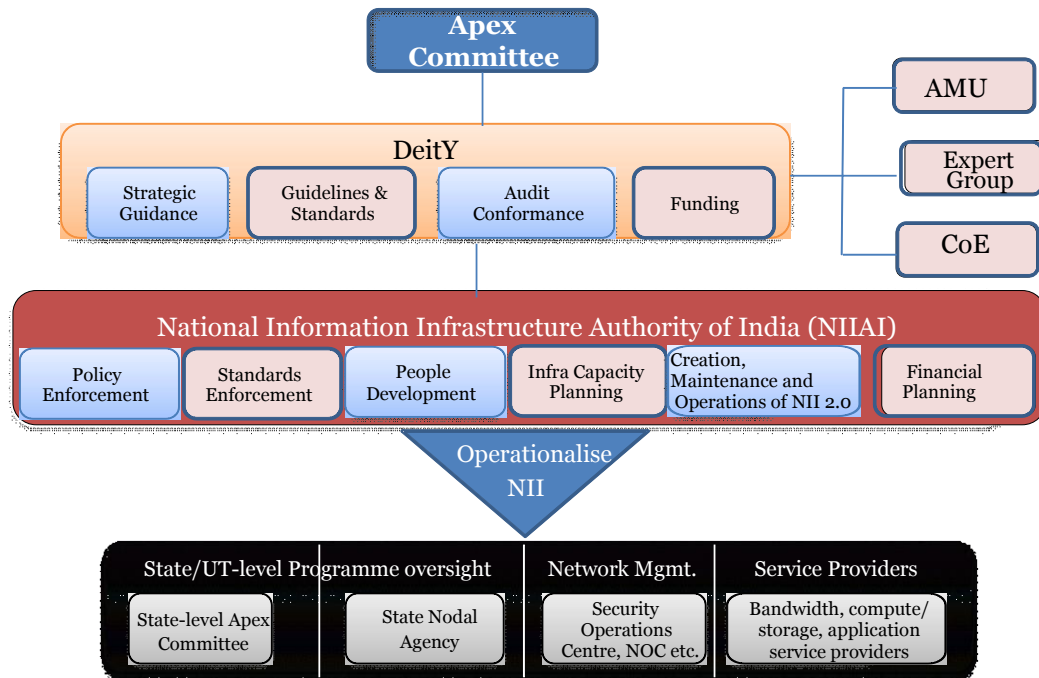
Figure 3: Institutional structure for NII 2.0

5.2. National Payment Gateway: PayGov India

States/UTs provide various government services to the citizens near their doorsteps in electronic form through their state portals. These services under any project may require fees to be paid by the citizen for availing the services. An online mechanism for payment of such fees can greatly help in online delivery of such services to citizens and businesses. The integration of a Payment Gateway for enabling e-payment will further facilitate the adoption of e-government and delivery of online services thereby fulfilling the vision of NeGP.

In this regard, DeitY has created a centralized Payment Gateway named as "PayGov India" for all the government departments and agencies in the country.

- PayGov India has been set up by DeitY and is operated and maintained by NSDL Database Management Ltd (NDML), a wholly owned subsidiary of National Securities Depository Limited (NSDL).

- Single central instance of PayGov India for all services across the country.

- PayGov India is securely integrated with e-Sangam (NSDG/SSDG) and the Mobile Seva (MSDG) platform.

- It also helps in adoption of the following dual strategy:

    ➢ *e-Sangam/Mobile Seva for services connected through the NSDG/SSDG/MSDG gateways.*
    ➢ *Directly through Department portals for services not connected through gateways, e.g. e-Procurement, treasury etc.*

- Reconciliation & Settlement: Funds transferred to State Nodal Bank by T+1 EoD

- Payment Modes: Net banking, Credit Card, Debit Card, Prepaid/Cash Card/Wallet, Interbank Mobile Payment Service (IMPS) & Mobile Wallet.

Any government department or agency in the country can avail the service. There is no integration charge, however transactional charges will apply as per the rates approved by DeitY.

For integration with **PayGov India**, departments would require to furnish the following details:

- Department should be ready with its own website/Mobile App having ability to track each transaction and communicate messages with PayGov India.

- Agreement between department and NDML.

- Payment Gateway Registration Form – to be filled and submitted.

- Merchant details form.

- Bank details form attested by the merchant's bank.

5.3. MeghRaj: GI Cloud

To harness the benefits of cloud, DeitY has launched an ambitious project termed as Meghraj to establish a Government of India Cloud (GI Cloud)[2]. The 'GI Cloud' is Government of India's cloud computing environment that will be used by government departments and agencies at the centre and states. In other words, it can enable the government to leverage cloud computing for effective delivery of e-services. The vision of the project is "*To accelerate delivery of e-services provided by the Government and to optimise ICT spending of the Government".*

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[2] http://deity.gov.in/content/gi-cloud-initiative-meghraj

The 'GI Cloud' policy statement is "*Government departments at the centre and states to first evaluate the option of using the GI Cloud for implementation of all new projects funded by the Government. Existing applications, services and projects be evaluated to assess whether they should migrate to the GI Cloud.*"

The policy principles of GI Cloud states that

- o All government clouds need to follow the standards and guidelines set by Government of India
- o At the time of conceptualisation of any new Mission Mode Project (MMP) or other government project, the existing services (IaaS, PaaS, SaaS) of GI Cloud to be evaluated first for usage
- o All new applications to be cloud ready

The operational model of 'GI Cloud' initiative comprises the formation and implementation of a cloud computing environment at the national and state levels that will act as a common repository of cloud-based infrastructure resources and applications available on a sharable basis. This will be possible by creating seamlessly operated infrastructure across the country by inter-connecting the components of network and data centres. This will, inter-alia, enable rapid replication of the successfully implemented applications across the country. Figure 4 shows the overall architecture of GI Cloud.

[1] **Single Portal for Service Delivery**
[2] **Built by private cloud providers**
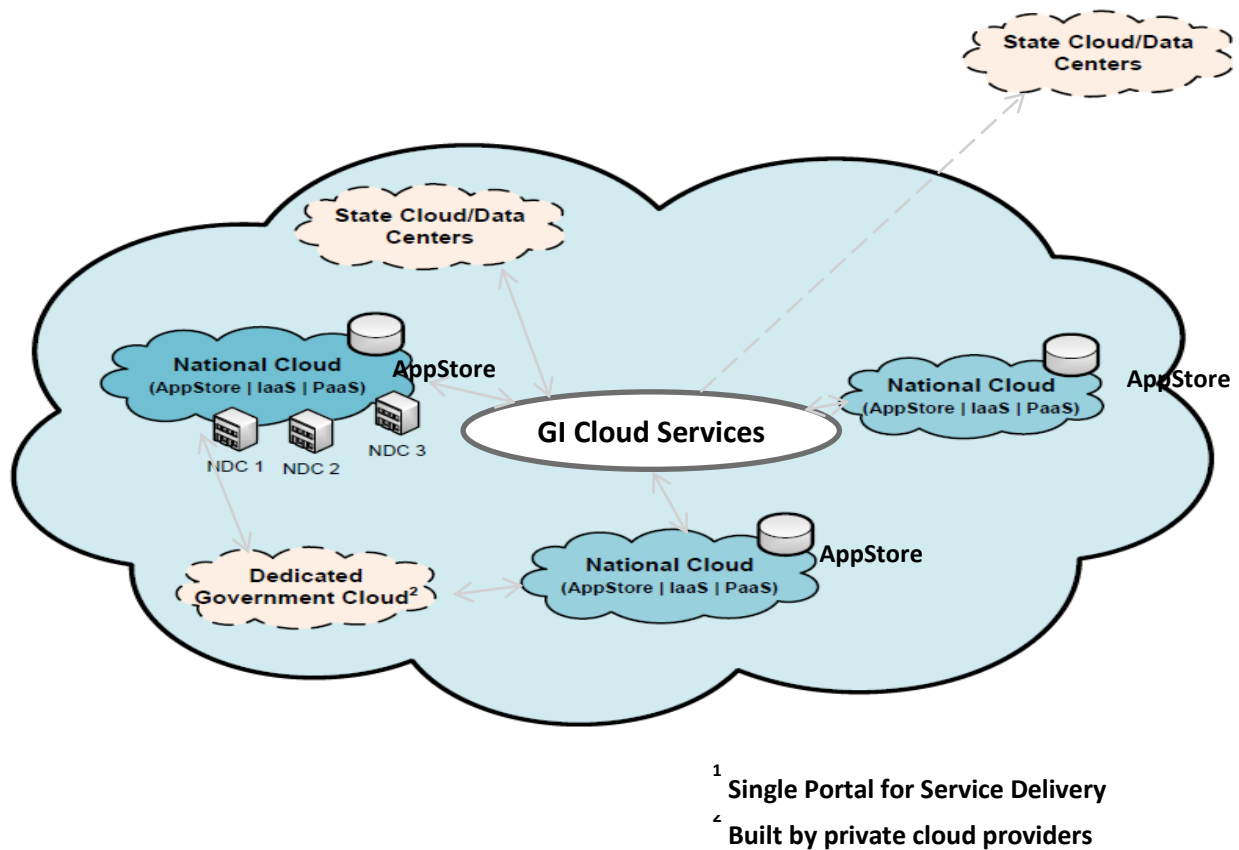
Figure 4: Architecture of GI Cloud

The architectural vision of GI Cloud focuses on 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. The GI Cloud is envisaged to consist of multiple National and State Clouds. The GI Cloud services will be published through a single GI Cloud Services Directory. While National Clouds are /will be built

utilising the infrastructure available under the National Data Centre(s), other National Clouds may also be established. These may be new or established by augmentation of the existing data centres available at state level. Based on demand assessment and taking into account security related considerations, government may also engage the services of private cloud providers.

The standard operating procedure to be followed by a government department / agency to avail the GI Cloud Services is as follow:

1
- Visit https://cloud.gov.in

2
- Apply & Register for Services→ On registration users will receive acknowledgement.

3
- On satisfying eligibility conditions→ Users will receive a "Welcome Mail" for SignUp

4
- Login for signup is allowed with GoI email accounts only. On successful signup, Users will receive T&C document (Users are required to download this document and submit the duly signed & stamped document to NIC Cloud Team through their concerned NIC HODs/ SIOs.)

5
- Once document is received the Sign Up process is complete, Users can then request for variety of Cloud Services being offered by NIC.

The institutional mechanism has been put in place to manage the GI Cloud and take care of regular operational aspects and to provide overall monitoring, supervision and guidance. Figure 5 shows the institutional mechanism of Meghraj.
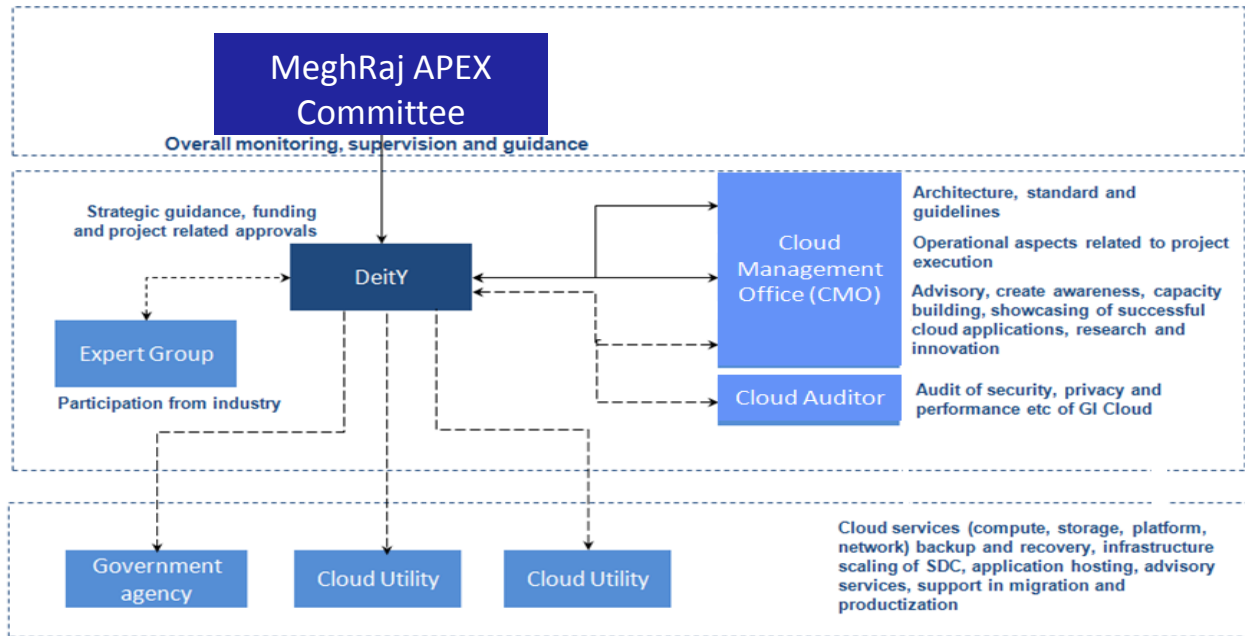
Figure 5: 'Meghraj' Governance Structure

5.4. eGov AppStore

Complementing the Meghraj framework would be the efforts to establish and make optimum utilization of an eGov App Store, which can host a large number of successful and time-tested applications for immediate adoption by departments and agencies needing the same. This will prevent the reinvention of the wheel. These efforts should also be complemented by establishing an e-Gov Application Directory and an e-Gov Services Directory, both of which will be based on the SoA standards for publication, discovery and consumption of services. Consequentially, the implementation schedules for e-Governance projects can be significantly condensed by encouraging the adoption of a combination of **(NII +Cloud + App Store)** as the most preferred option for the e-Gov planners. Before developing any new application, ministries/ departments should ensure its non-availability on the eGov AppStore and the mobile AppStore (M-AppStore).

With the vision of accelerating delivery of e-services as envisaged under NeGP and optimising ICT spending of the government, DeitY has launched the eGov AppStore on 31st May' 2013. The eGov AppStore is envisaged to become a national level common repository of customizable and

configurable applications that can be re-used by various government agencies /departments at centre and states without investing effort in development of such applications.

Following are the objectives for setting up the eGov AppStore:

- o Speeding up the development and deployment of e-governance applications
- o Easy replication of successful applications across states
- o Avoid duplication of effort and cost in development of similar application
- o Ensure availability of certified applications following common standards at one place

Core and common applications that have high demand and are replicable across the central and state levels are the likely candidates for the eGov AppStore, which shall be hosted on the National Cloud. Common components like the payment gateway, messaging platform, MIS reporting, etc, will also be made available in the eGov AppStore. Any department can use the services of eGov AppStore through two primary means – either by directly running an application available in the respective eGov AppStore or by downloading an application from the respective eGov AppStore.

The eGov AppStore is being implemented in a phased manner over a period of time. Presently, the eGov AppStore is primarily a repository showcasing NIC applications and components which were developed for specific requirement of States. These applications are not yet in their productized form. Going ahead, some of the popular applications will be productized and made available on the eGov AppStore to be used as SaaS. The present version of the eGov AppStore has the following features:

- o Allows sharing of applications
- o Allows search for applications
- o Provides basic information about an application on selection
- o Allows users to provide feedback and rate an application
- o Has two level approval process for contributing applications
- o Allows authenticated users to download application for consumption

In due course, this eGov AppStore will be augmented to include applications and components developed by various departments and agencies at centre and states and private players; and a complete eco-system will be established (including mechanism for funding, charge back, contract management, SLAs) and will become a part of the GI Cloud initiative under Government of India. The standard operating procedure to be followed by a government department / agency to avail the applications hosted at eGov AppStore is as follow:

1	• Visit https://apps.gov.in
2	• User may refer to Contact details of the contributor of the application. It provides the contributor's name, office address, email address and phone number
3	• An email may be sent to the contributor for any requirements for configuration, customisations and master data preparation.
4	• Authenticated user may refer to the download section for downloading the user manual and technical manual.
5	• User may look at the demo URL, for test run of the application.
6	• User can request the contributor for creating the application instance. Once administrative formalities are completed, an instance will be created for testing/use / customisation / master data preparation..
7	• User may contact the contributor for any issues in using the application.

5.5. Mobile Seva

The Mobile Seva platform (https://mgov.gov.in), launched in July 2011 is aimed at mainstreaming mobile governance (m-Governance) in the country. It aims at widening the reach of, and access to, public services to all citizens in the country, especially in the rural areas by utilizing the much greater penetration of mobile phones in the country and leveraging the potential of mobile applications in providing public services. It provides a complete ecosystem for enabling the delivery of various electronic government services through mobile devices in an efficient manner with minimum effort for the participating government departments and agencies. The departments need not create their own infrastructure thereby saving costs, effort

and time. It also enables a government department to integrate both web and mobile based services seamlessly and enhances the access to electronic services tremendously leveraging the very high penetration of mobile phones, especially in rural areas. Availability of government-wide shared infrastructure and services enables rapid development and reduced costs for the departments in rolling out mobile based services.

Mobile Seva provides all possible mobile based channels for service delivery, e.g., SMS, USSD, IVRS and mobile applications. It will also provide location based services (LBS) and cell broadcasting services (CBS). It provides integrated hardware and software to test and deploy the m-governance applications. It provides various mobile based options for the citizens to apply for and receive public services through their mobile devices irrespective of the network operators to whom they've subscribed. It also has an integrated system for delivering the IVR based services through mobiles and fixed telephones. Mobile Seva supports the delivery of both voice and data services and content in a network and device independent manner to the extent possible and feasible. It also offers shared tools like data collection, helpdesk services, APIs and SDKs to the government departments and agencies that wish to deploy mobile applications for public services. It also has a provision for metered access so that various agencies and partners of Mobile Seva can account for any fee based services based upon their actual delivery.

Figure 6 below depicts the various components of Mobile Seva.
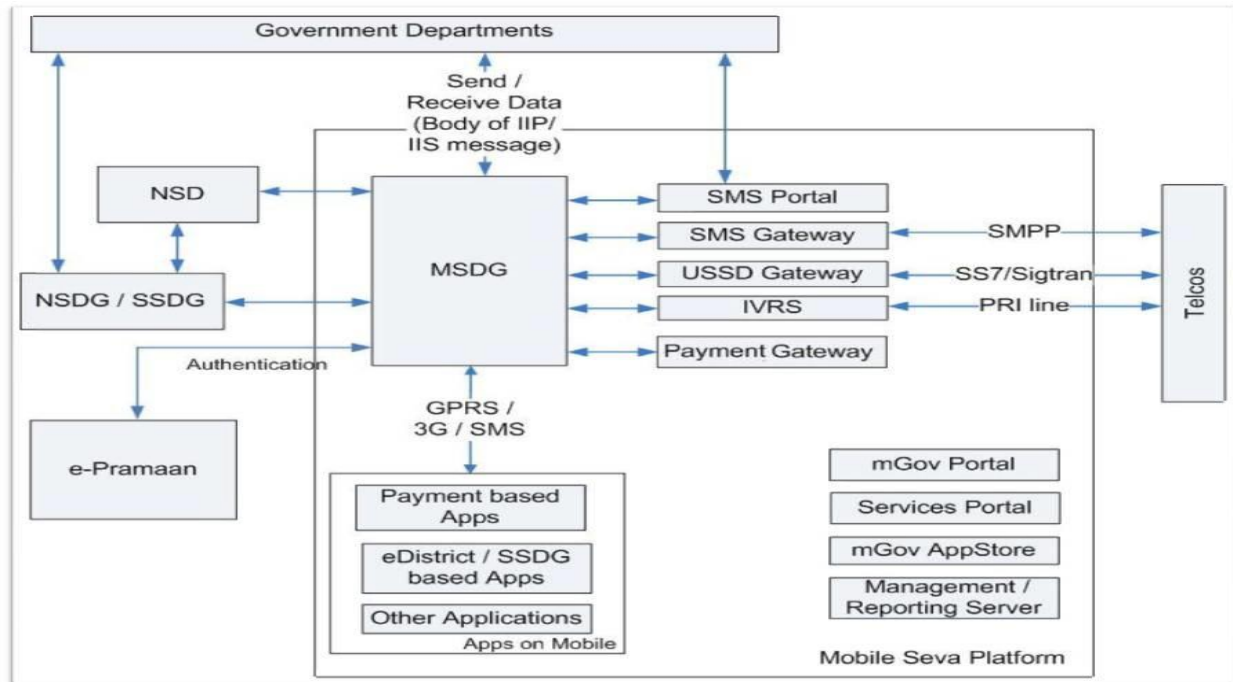
Figure 6: Various Components of the Mobile Seva platform

The Mobile Seva project has seen an immense success within two years of its launch. Increasingly, mobile access is becoming the default option for seeking of information or availing of a variety of services.

The platform also provides for **Mobile Applications (m-Apps) Store** (https://apps.mgov.gov.in) which facilitates the process of development and deployment of suitable applications for delivery of public services through mobile devices. The m-apps store is integrated with the MSDG and it uses the MSDG infrastructure for deployment of such applications. The store is based upon service oriented architecture and cloud based technologies using open standards.

Mobile Seva Services portal and its services can be accessed at https://services.mgov.gov.in/. A user needs to create his account and sign into the portal. The various facilities provided by the Services Portal inter-alia includes account creation / login, account management, group management, creation of sender-id, configuring SMS limit requests, changing of user password, provision of quick/group/bulk SMS services and generation of reports on sent SMS / pull request / add pull service. The user manual on Mobile Services Portal can be accessed at https://mgov.gov.in/msdp_services_usermanual.jsp which not only introduces the Services

Portal but also explains its usage and navigation to a new user. The latest technical integration document for MSDG service may be obtained by sending an e-mail to MSDP team at msdp@cdac.in.

Figure 7 depicts an overview of the on-boarding process for departments on Mobile Seva.
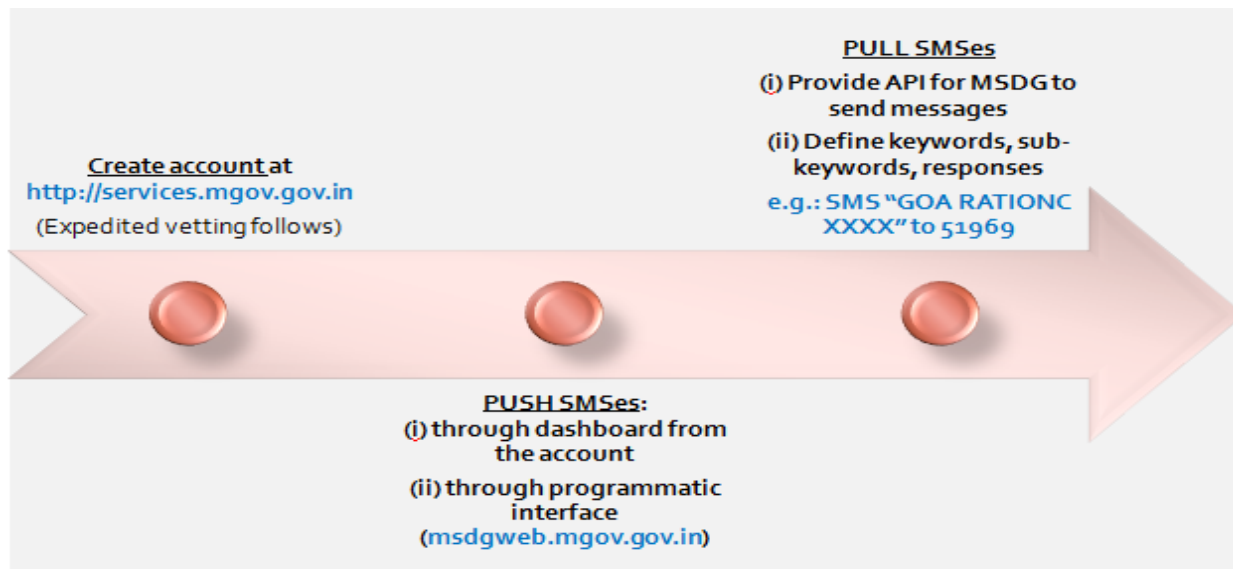
Figure 7: On-barding process for government departments on Mobile Seva

5.6 e-Pramaan: Framework for e-Authentication

In recent years, a large number of e-governance initiatives have been undertaken across the country. This has generated a need for e-authentication of users accessing online services through web/mobile. Presently, the authentication mechanisms are mostly offline and where online authentication is used, they are inadequate and disparate across various applications. Also, they are not consistent and uniform across the applications and are not based on standards.

e-Pramaan aims to enable various government departments and agencies address the access management and authentication requirements associated with the deployment of e-governance applications and services. At the same time, it also envisages to maintain uniformity and consistency across all electronic authentication mechanisms used by various government applications. It fully incorporates and uses the Aadhaar authentication mechanisms provided by the Unique Identification Authority of India (UIDAI).

The "e-Pramaan: Framework for e-Authentication" was notified by DeitY in December 2012. The framework serves as a guiding document for development and implementation of appropriate online authentication mechanisms by central and state government departments/agencies. It defines various levels of authentication assurance based on a risk based sensitivity of applications.

Level 0: No Authentication

Level 1: Single Factor Authentication

Based on Username and password OR Aadhaar number and demographics

Level 2: Two Factor Authentication

In addition to Level 1

One Time Password (OTP)

Level 3: Two Factor Authentication

In addition to Level 1

Hardware/Software based token (eg. Digital Certificate/Signature, smart   card etc.) OR

Biometrics based verification using Aadhaar

Level 4: Multi Factor Authentication

Biometrics as one of the factors + "Username-Password OR Hardware/Software token"

It is proposed to adopt a two phased approach in implementation of the e-Pramaan framework as noted below.

- **Phase I**: Development of pluggable authentication components/modules for government applications and related APIs for integration. It will help departments implement e-authentication as defined in the e-Pramaan framework and as per the standards, keeping e-authentication mechanisms robust, uniform and consistent.
- **Phase II**: Offer e-Pramaan as an authentication service to departments with all levels of authentication as defined in the e-Pramaan framework and facilitate on-boarding of government departments by providing integration APIs, guideline documents and technical support.

Figure 8 shows a schematic for implementation of e-Pramaan in the e-governance applications of various government departments and agencies.
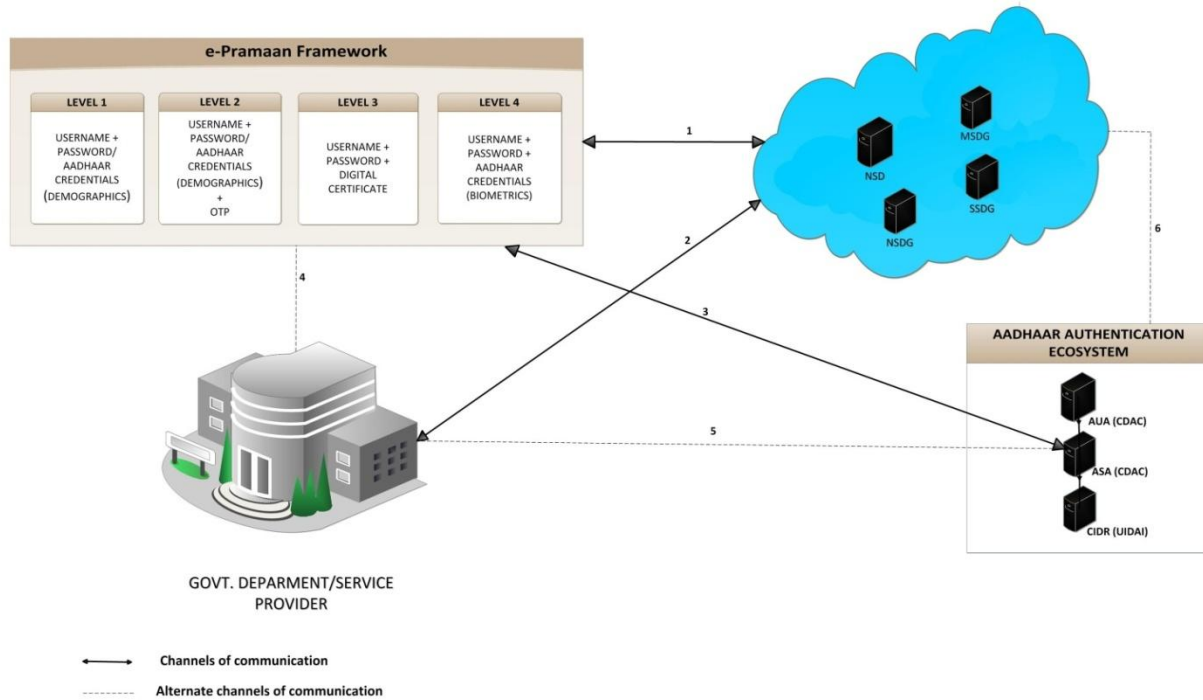
Figure 8 : **e-Pramaan in eGov ecosystem**

5.7. e-Governance Standards

In order to identify and formulate standards for e-Governance, an Institutional Mechanism was set up in November 2005, involving experts from DeitY, NIC, STQC, BIS, industry and academia.

Open Standards offer innovative solutions that can be considered as alternative to one of the challenges that government departments face, i.e. licensing costs associated with the acquisition and deployment of ICT. In this direction, various steps taken by DeitY include the following:

- Notification of Policy on Open Standards

- Notification of Technology Standards in Indian Languages (Character Encoding & Open Font)

- Notification of Technology Standards for Interoperability Framework for e-Governance (IFEG)

- Notification of Biometrics standards (Finger prints, Photo image and Iris)

- Notification of Metadata and Data Standards (MDDS) for Demographic Standards

- Notification for Digital Preservation Standards for e-records

- Guidelines for Digital Signatures

- Guidelines for Indian Government Web Sites

- Guidelines for compliance to Quality requirements of e-Procurement Systems

- Guidelines on Quality Assurance Framework and Conformity Assessment Requirements for e-Governance applications

- Publication of eSAFE, a set of guidelines in nine areas of security

- Best Practices for Localization of e-Governance Applications in Indian Languages

- Notification of Framework for Mobile Governance

- Notification of e-Pramaan: Framework for e-Authentication

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. In this regard, the e-Governance Standard for Preservation Information Documentation of Electronic Records notified by DeitY should be followed.

Various eGov standards and associated Guidelines are available at http://egovstandards.gov.in/. **DeitY has notified a policy on open standards.** Adoption and usage of the published standards is still at a nascent level even though some progress is witnessed in adoption of Biometric standards by UIDAI. and other ministries/departments of

GoI as well as by state/UT governments. For adoption of these standards,various steps are being taken like organizing awareness workshops, preparation of assessment Guidelines for Standards Compliance and working closely with BIS for notifying them as national standards. Fast adoption of standards is the key to efficient interoperability and integration of applications and data.

Currently, the e-governance standards notified by DeitY through executive orders are recommendatory in nature. They do not have statutory value nor can they be mandated. It is necessary to bring in a special set of rules under the proposed EDS Bill to regulate and mandate e-governance standards. E-governance standards should also include the generic standards that DeitY develops as also the domain specific standards that line ministries develop. Since, the field of e-governance standards needs a dynamic and dedicated approach on regular basis, a National Institute for e-Gov Standards is proposed to be established to undertake this responsibility. The line ministries should give priority at the highest level to the MDDS committees constituted for formulation of domain standards, under the overall guidance of the proposed National Institute for e-Governance Standards.

Besides the formulation of generic and domain standards, the following complementary steps are recommended.

- o A set of Reference Architecture Models has to be designed, incorporating the cutting edge technologies and global/ national standards.

- o A grid of standards-based middleware infrastructure has to be established so as to enforce the standards, promote interoperability and make available commonly used artifacts on demand.

5.8. Language Localisation

As Mission Mode Projects and other eGov initiatives focus on delivering services to citizens, it is imperative that the information and services provided to all the stakeholders through these applications are localized in Indian Languages. Localization should be made a priority for all e-

governance applications. With this vision in mind, a new MMP viz. "e-Bhasha Takniki" has been proposed under the overall ownership of DeitY. The new MMP will aim at developing computing technologies and tools for constitutionally recognized Indian languages so that e-governance applications can be localized and used by citizens in their own languages.

5.9. e-TAAL 2.0

Considering the rapid growth in the number of services being integrated with e-Taal over the past year and growing awareness amongst the stakeholders, it is proposed that an enhanced version of e-Taal be developed and released. The major enhancements proposed in this regard are as follows:

1. Incorporating the following features in e-Taal:
    a. Business Intelligence (BI) Tools
    b. E-Services Directory
    c. Local language interface
    d. Weighted average system for various services
    e. Geographical orientation to service delivery points
    f. Comparative analysis of states/e-services in terms of e-transactions
2. Instituting an Inspection and Audit system (for quality of service)
3. Organizing a national workshop to finalize the site print for e-Taal 2.0 involving all stakeholders
4. Evaluation of e-services integrated with e-Taal to assess relevance, accuracy and correctness of data reported

Business Intelligence:

National and State level organizations often struggle to understand and analyze the enormous amounts of data that have become available during the past few decades at all levels of the organization and across multiple devices. To achieve their objectives and make better informed decisions regarding policy design and program implementation, organizations need powerful business intelligence (BI) capabilities that span the spectrum of reporting and analysis

requirements as well as new self-service capabilities, which can substantially add to the contribution of IT in satisfying the needs of the organization.
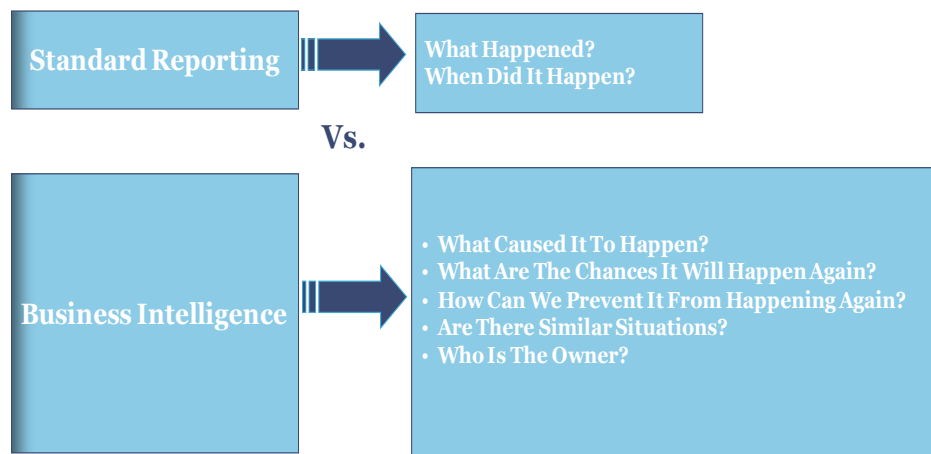
Figure 9: Standard Reporting Vs Intelligent Reporting

BI will give the extra edge to e-Taal and establish it as the most logical choice for monitoring and tracking the progress of various initiatives as well as decision making by the government. Some functions that may be performed through BI on e-Taal are as follows:

- Comparative analysis of the performance of a service in one region w.r.t. another region
- Providing individual access controls to state officials to enable them to use the tool for better policy-making and decisions at state level
- Calculating Month on Month growth for a particular state / project
- Drawing charts for service delivery trends for various states over a period of time, cumulative count as well as for selected projects
- Viewing transaction counts of a state or multiple states for a particular time interval, e.g. for a specific quarter on the map of India
- Deriving correlations and cause-effect relationships between different services and spatial / geographic factors to enable better focusing and targeting of service delivery efforts

E-Services Directory:

A large number of services are being provided by the states in various sectors. Since last year, approximately 2320 e-services from 21 central ministries and all 35 states and UTs have been registered with e-Taal. This reflects the government-wide acceptability of e-Taal. It has been observed that name of a particular service may vary across states. e-Taal 2.0 will incorporate an e-Services Directory facilitating the following features:

1. Finding state level services grouped in a particular standard service
2. Details of the e-governance application providing the service in terms of :
   a. Name of the Department
   b. Name/Designation, email id, Phone Number, etc. of the application manager
   c. Description of a given service
   d. Details of the form (if any) to be filled to obtain the service
   e. Fee (if any) to be paid for the service, etc.

3. Details of the spatial spread for a given service. For example, the Department of Land Resources, Government of India might be interested in obtaining the list of all the states/districts/talukas providing ROR (Record of Rights) electronically.

Local Language Interface:

The application is Unicode compliant and hence is able to consume the local language data received and display it as it is on the portal. It is proposed to develop a Local Language Interface for the e-Taal portal to display the home page and portal contents in various languages. This will allow an even-larger number of citizens and other interested parties to view and study the data available in the public domain. The Technology Development of Indian Languages (TDIL) Group in DeitY has developed software to allow creation of local language interfaces in all 22 constitutionally recognized Indian languages which can be integrated with e-Taal.

Weighted Average System for Various Services:

Currently, various states and the MMPs are being ranked based on the absolute number of e-transactions reported in a given month. All categories of e-transactions (A, B, C, D, E and F) are treated at par. At present, various parameters to measure the quality of service delivery are not being factored in. Hence, it is suggested that a system of assigning appropriate weights should be evolved. An indicative framework arrived at after an initial brainstorming session by the National Project Management Committee is given below:

				SERVICE CATEGORIES					
				A	B	C	D	E	F
I.	Apply Base Multiplier			1	0.3/P	0.2	0.1	1/P	0.5
II.	Apply Quality Weightage/8								
	1)	Digital Signature							
		No	0						
		Yes	1						
		Not Applicable	1						
	2)	Mandatory Digital Service							
		No	0						
		Yes	1						
		Not Applicable	1						
	3)	Mobile Enablement							
		No	0						
		Yes	1						
		Not Applicable	1						
	4)	ePayments							
		No	0						
		Yes	1						
		Not Applicable	1						
	5)	Local Language Interface							
		No	0						
		Yes	1						
		Not Applicable	1						
	6)	No. of visits							
		Number of visits > 2	0						
		Number of visits <= 2	1						
		Not Applicable	1						
	7)	Real time update for eTaal							
		No	0						
		Yes	1						
		Not Applicable	1						
	8)	Integrated Service							
		No	0						
		Yes	1						
		Not Applicable	1						

Geographical Orientation to Service Delivery Points:

As of now, e-Taal facilitates drill-down from national to state level. In some cases, this can be done up to the district level. There is a provision to report the location for the service as per the location code used by the Census. However, the location data is not made available to the e-Taal system while sharing the transaction statistics except in case of services offered through CSCs. It is proposed to implement the system of capturing location code also so that drill down at lower geographical levels becomes feasible.

Also, for effective implementation of the same, clear directions will need to be sent from the national level Project Monitoring Committee (NPMC) to the state level Project Monitoring Committees (SPMCs) and ministry level Project Monitoring Committees (MPMCs) for providing the e-transaction count till the lowest level possible. This will also necessitate that the administrators of all e-services integrated with e-Taal evolve mechanisms for capturing location data in the software applications being implemented by them.

Inspection and Audit system:

It is proposed to evolve an Inspection and Audit System to be used to ensure Quality of Service (QoS) counts reported by various e-governance applications. An appropriate Inspection and audit framework for e-Taal will need to be devised to ensure accuracy, consistency and reliability of the e-transaction data being shared by various e Governance applications. Indicative audit controls to be checked may include:

- Correctness of the mapping of e-services to their respective categories
- Potential security breaches
- Access controls
- Whether the department that had agreed to provide near-real time data at a later date has been providing the same or has still been continuing to provide it in batches etc.

The QoS analysis can also logically be extended to the service levels defined by the application administrators. e-Taal can capture data relating to the delivery of services in the specified

timelines and to the specific defined service levels. This will enable departments to assess the satisfaction levels of citizens with the quality of service provided to the citizens. The measurement of the quality of service will be an important factor to be addressed after the implementation of the EDS Bill, and e-Taal will be ideally poised to capture this information.

5.10. e-Governance Impact Index and Result Framework Document

An **e-Governance Impact Index** needs to be developed which can be used at the level of a service or at a project level or at the level of any geographical unit. The index needs to be integrated with e-TAAL 2.0 in order to dynamically compute the quantitative as well as qualitative aspects of the impact of e-governance projects. The concept of assessing e-government initiatives along two dimensions, namely, the **depth of vision** and the **capacity for implementing the vision** may also be gainfully used in building up such an index.

Quality of Service (QoS) Parameters

QoS parameters needs to be build up into each MMP. The following QoS components may be used as reference and may need to be customized with respect to a particular MMP:

  i.   Quality of problem resolution and exception handling

 ii.   User independence of time and/or place, 24 x 7 availability

    a.   Convenience of location of access point for service: Measure on a scale

    b.   Number of days in a week that service is available

    c.   User satisfaction with service delivery timings

iii.   Quality of facilities at access points

 iv.   Simplicity of user actions required for obtaining the service

  v.   Single window access to several services (dependent on whether single window access required by design)

    a.   Number of different services availed

    b.   Convenience of service off-take through single window

 vi.   Overall convenience in obtaining service

vii. Friendliness in interaction with government staff (Including parameter of dignity/decency with which client is treated)

viii. Location of service access points

ix. Reliability

x. Utility

Integration of e-Governance Impact index with Results-Framework Document (RFD)

In pursuance of the recommendation of the Expert Committee on NeGP regarding RFD style monitoring of MMPs, a draft RFD for monitoring of MMPs has been prepared by DeitY and shared with the Performance Management Division, Cabinet Secretariat. The format is in line with the present RFD format in vogue at GoI.

Presently, the 31 MMPs under the NeGP are in three different stages of Implementation i.e. Design & Development stage, Implementation stage and the Post Implementation Stage. Accordingly, three separate formats have been prepared for prescribing different success indicators for these stages. The e-Governance Impact Index for a particular MMP / e-Governance project needs to be linked to the RFD for the project concerned as well.

A. Design and development	i. Define objectives and set "Vision" ii. Preparation of Core Scope Document & Detailed Project Report iii. Capture baseline data for monitoring outcomes iv. Degree of BPR undertaken to attain transformation v. Placement of dedicated Mission Leaders and Team vi. Designing service oriented high-level architecture vii. Leveraging of core ICT infrastructure and Cloud platform viii. Usage of emerging technologies including mobile ix. Compliance to standards & interoperability x. No. of e-Services offered xi. No. of integrated e-Services offered

B. Implementation Stage	i. Physical milestones with originally fixed timelines ii. Financial progress iii. Revamping delivery channels iv. Leveraging core ICT infrastructure and Cloud platform v. Productisation of application components and leveraging e-Gov AppStore vi. Quality evaluation through technical audit by Third Party vii. Capacity Building and Change Management viii. Business Continuity Plan ix. Placement of Dedicated Mission Leader and Project Team x. Outcome capturing by designing KPIs to include efficiency, transparency, multiple modes of delivery, cost & service delivery time reduction xi. Integration of outcome KPIs with objectives of citizen charter service levels
c. Post Implementation Stage	i. SLA monitoring ii. No. of integrated services delivered iii. Accessibility of services (through multiple modes including mobile) iv. Capacity Building v. % of e-Services offered as compared to the project plan vi. QoS of services delivered vii. Security including cyber security viii. Project monitoring through MIS & dashboards x. Citizen feedback xi. Performance audit by Third Party Auditor xi. **e-Governance Impact Index**

The following methodology may be prescribed for the implementation of RFD style monitoring of MMPs. The implementation of MMP may be prescribed as a mandatory action point in the Departmental RFDs of all the concerned ministries/departments with 10% mandatory weightage for the MMP implementation. The success indicators may be predefined as per the implementation stage of the MMP. Suggested success indicators may be as follows:

Mission leaders may be asked to finalise the success indicators, their respective weightages along with the respective target values. The monitoring of the MMPs may be done as per the extant procedure for monitoring Departmental RFDs.

5.11. Social Media

Social media have a significantly large presence in India. Recognizing the power of the social media, Government of India has notified a policy on the use of social media by the government departments and agencies (https://www.negp.gov.in/pdfs/Approved_Social_Media_Framework_and_Guidelines%20_2_.pdf). However, the possibility of enhancing the value of e-governance projects through the appropriate use of social media has not been so far given due consideration. Social media can be used for engaging the citizens in the following ways:

1. Design of innovative and transformational projects aimed to deliver e-services: It is essential to make innovative use of social media to reach citizens and other stakeholders by engaging them at the very initial phase of project design and development. Social media can be used to achieve the objective of transformational BPR / GPR which may not fructify in absence of citizen / stakeholder centric design.

2. Receiving feedback on the quality of e-Services: A well-developed stakeholder feedback mechanism can act as an important tool to ensure effective flow of essential information within and across core levels of government functioning. As a project undergoes various cycles of implementation, its development across different stages must be facilitated by increased information integration that effectively aligns the upstream processes of functioning involving ministries, departments and agencies engaging in planning and decision making with that of the expectations of end users or service recipients. This process of enhancing service delivery through proper channelization of accurate and reliable information may be achieved through the implementation of processes and mechanisms ranging from participatory methods and processes for assessment, program design, monitoring and evaluations, accountability frameworks, real-time evaluations, complaint and response mechanism, social performance management systems and such others.

3. Grievance redressal arising out of non-compliance to committed service levels etc.: There is an immediate need to strengthen grievance redressal systems across

ministries/ departments. Grievances may be collected in a structured manner through IVR and SMS systems as well as by social media platforms and statistics could be exposed transparently through the Internet and other media channels. This approach would be scalable both in terms of data collection for immediate action on complaints, and data analysis for identification of reoccurring flawed patterns to systemically improve the handling of complaints within government departments.

6. Consultation Process on e-Kranti: New Mission Mode Projects

The need for NeGP 2.0 was discussed at length during the meeting of the PM's Committee on National e-Governance Plan held on 1st July, 2013. The Apex Committee on NeGP chaired by the Cabinet Secretary also deliberated on this during its meeting on 5th November, 2013. Pursuant to the decision of the Apex Committee, DeitY prepared a draft concept paper on NeGP 2.0 titled "e-Kranti – Transforming e-governance for Transforming Governance" and shared it with the Cabinet Secretary and the PMO. Subsequently, the 'e-Kranti' concept paper was circulated to all the central ministries and departments and the IT departments of all states/ UTs.

A series of information, education and communication meetings were conducted to apprise the departments about the key concepts behind e-Kranti. The concept paper on e-Kranti was also discussed during the Council of Mission Leaders and Apex Committee meetings held on 14th March and 18th March 2014 respectively. A workshop was also held on 16th April 2014 to sensitize the departments about new e-governance initiatives of DeitY with major focus on e-Kranti. Forty five responses comprising 34 responses from Central Departments and 11 responses from states/UTs have been received. As an outcome of the consultative process, 10 new MMPs have been approved in principle by the Apex Committee headed by Cabinet Secretary on 18th March 2014.

The 10 new MMPs, approved in principle by the Apex Committee on NeGP, are as follows:

Sl. No.	Proposed MMPs	Category	Owner Department	Key Components
1	e-Sansad	Central	Parliament of India, Lok-Sabha Secretariat	Bills, Gazette notifications, Budget, Parliamentary Questions database, Parliamentary proceedings, Publications
2	e-Vidhaan	State	Parliament of India, Lok-Sabha Secretariat	As above for State Legislatures
3	Financial Inclusion	Integrated	Financial Services	Strengthening Banking & Insurance services in the rural areas through strategic use of ICT
4	Roads and Highways Information System (RAHI)	Integrated	M/o Road Transport & Highways	Integrated citizen centric services related to roads and highways
5	Agriculture 2.0	State	D/o Agriculture	Sector specific services for horticulture and fisheries, governance & citizen-centric services for co-operatives and fertilizer testing labs
6	NGIS	Integrated	D/o Science & Technology	Integrated GIS platform
7	Rural Development	State	D/o Rural Development	A portfolio of rural development services including NREGA
8	Social Benefits	Integrated	M/o Social Justice and Empowerment as the leader and other welfare departments as co-owners	Online benefit schemes, Integrated e-services for NGOs
9	Women and Child Development	State	M/o Women and Child Development	Integrated Child Development Scheme, Integration with Health MMP
10	Common IT Roadmap for Para Military Forces	Central	MHA	
11	e-Bhasha Takniki	Integrated	DeitY	Language localisation

DeitY has also proposed to formulate and include an additional MMP named as "e-Bhasha Takniki" aimed at developing computing tools and technologies for language localization of e-governance applications. It is pertinent to mention that several central ministries/ departments are in process of finalizing their e-governance proposals for inclusion under Mission Mode Project Portfolio of e-Kranti.

6.1. e-Sansad

Legislature is one of the three most important wings of the government functionaries under a democratic setup. The Parliament consists of two houses, i.e. the Lok Sabha (House of the People) and the Rajya Sabha (Council of States) and the President. Lok Sabha is composed of representatives of the people chosen by direct election on the basis of the adult suffrage. The maximum strength of the House envisaged by the Constitution is 552 while that for the Rajya Sabha is 250.

The existing management system of Lok Sabha and Rajya Sabha are operated manually for maintaining the data of the members and various activities of the houses. The activities related to sessions, debates, committee meetings, budget related information to the members, etc., are being dealt in manual records. There is a good scope of exploring ICT innovations for complete automation of the houses in improving the internal efficiency and effective communication to and from the members.

Leveraging ICT for streamlining the processes of important activities would help in improving the performance of the legislative secretariat and in establishing a comprehensive digital database over a period, which will have multiple applications. The following key aspects which include entire gamut of functioning practice & procedure and management of information generated in both the Houses of Parliament are envisaged as part of the "e-Sansad" MMP:

1. Bill as introduced, discussion on Bill, amendments moved, Report of the Committee on the Bill, Bill as passed, Gazette notification on the Act.

2. Budget as introduced (budget speech), amendments moved, parliamentary debates on budget, budget as passed.

3. Subjects selected by parliamentary committees, meetings of the committees, parliamentary committee reports, etc.

4. Government business, private members' business transacted in the parliament.

5. Parliamentary Question Database.

6. Video recording of the parliamentary proceedings.

7. Digital library.

8. Parliamentary proceedings in in Hindi, English and the Floor version.

9. Publications brought out by the Parliament Information Service (PARLIS).

10. Sharing of data among parliament and state legislatures.

6.2. e-Vidhaan

The Vidhaan Sabha or the 'Legislative Assembly' is the lower house (in states with bicameral legislature) or the sole house (in unicameral states) of the state legislature in different states of India. The upper house in the six states with a bicameral legislature is called the Legislative Council, or Vidhan Parishad. Its maximum size as outlined in the Constitution of India is not more than 500 members and not less than 60 members.

The existing management system of most of the Legislative Assemblies / Councils is operated manually for maintaining the data of the members and various activities of the Houses. The activities related to sessions, debates, committee meetings, budget related information to the members, etc., are being dealt in manual records. There is a good scope of exploring ICT innovations for complete automation of the houses in improving the internal efficiency and effective communication to and from the members.

Leveraging ICT for streamlining the processes of important activities would help in improving the performance of the legislative secretariat and in establishing a comprehensive digital database over a period, which will have multiple applications. The principles of implementation of e-Vidhaan is on similar lines as that for "e-Sansad" MMP. The following key aspects which

include entire gamut of functioning, practice & procedure and management of information generated in both the Legislative Assemblies / Councils are envisaged as part of the "e-Vidhaan" MMP:

1. Bill as introduced, discussion on Bill, amendments moved, Report of the Committee on the Bill, Bill as passed, Gazette notification on the Act.
2. Budget as introduced (budget speech), amendments moved, legislative debates on budget, budget as passed.
3. Subjects selected by parliamentary committees, meetings of the committees, legislative committee reports, etc.
4. Government business, private members' business transacted in the legislative assembly / council.
5. Legislature Question Database.
6. Video recording of the legislative assembly / council proceedings.
7. Digital library.
8. Assembly / council proceedings in the legislature in Hindi, English and the Floor version.
9. Sharing of data among parliament and state legislatures.

6.3. Financial Inclusion

Financial inclusion is a key priority of the government. The objective of financial inclusion is to extend financial services to the large hitherto unserved population of the country to unlock its growth potential. In addition, it strives towards a more inclusive growth by making financing available to the poor in particular.

The essence of financial inclusion is to ensure that a range of appropriate financial services is available to every individual and enable them to understand and access those services.

Financial inclusion is necessary to distribute evenly the benefits of economic development. Inclusive growth as a strategy for economic development aims at making products and services, including financial services, available to those who for various reasons stand excluded.

As per Census 2011, 58.7% households are availing banking services in the country. There are 1,10,733 branches of Scheduled Commercial Banks (SCBs) in the country as on 31.12.2013, out of which 41,833 (37.77%) bank branches are in the rural areas and 29,823 (26.93%) in semi-urban areas, constituting 64.70 % of the total numbers of branches in semi-urban and rural areas of the country. However, a significant proportion of the households, especially in rural areas, are still outside the formal fold of the banking system.

For furthering the financial inclusion, the government has advised banks to undertake mapping of Gram Panchayats and adopt Sub Service Area approach with the objective of bringing banking facilities to each village in the country.

Sub-Service Area Approach (SSA) : Under Sub Service Area approach, banks have been advised to extend banking services to the entire geography of the country based on the concept of Sub Service Area (SSA) comprising of 1000-1500 households. In case of North-East, Hilly States and sparsely populated regions of other states, banks may decide the households to be covered by each BCA appropriately. In case of larger Gram Panchayats, more than one BCA could be appointed. In case of smaller Gram Panchayats, more than one contiguous Gram Panchayat, taking into consideration the geographical area, could be assigned to each BCA.

Banks have already initiated the above process to plan for providing a banking outlet (Branch with ATM or Business Correspondent Agent (BCA)) to every Sub Service Area, in 121 districts which were brought under the Direct Benefits Transfer (DBT) scheme. In these 121 districts, banks have provided banking facilities in about 30,751 SSAs out of 30,855 SSAs identified and have targeted to achieve 100% coverage of the remaining SSAs by 31.05.2014.

Unstructured Supplementary Service Data (USSD) based Mobile Banking: With a goal to provide financial inclusion through mobile phones, Telecom Regulatory Authority of India (TRAI) in consultation with DFS is planning to introduce unstructured supplementary service data (USSD)-based mobile banking services. USSD is the numeric code preceded by a '*' and followed by a '#' (*111#, for instance). Soon customers, regardless of their banking institution, can send a *99#

to receive a menu of options on their handsets. The options will include services such as remittances and balance enquiry, which can be operated using a mobile id and password.

6.4. Roads and Highways Information System (RAHI)

As the third largest road network measuring 42.36 lakh km, India's road network is a critical lifeline of infrastructure in our country. From Tezu in the far east (Arunachal Pradesh) to Narayan Sarovar in the West (Gujarat), and from Kargil (J&K) in the north to Kanyakumari (Tamil Nadu), the road infrastructure of India is one of the most complicated and diversified assets in the country. From the highest mountainous passes in the world, to the vast arid regions, and dense forests, management of road infrastructure in India is a humongous challenge.

In India, about 60% of freight and 87.4% passenger traffic is carried by roads. 1.7% of the road network (National Highways) carries 40% of the total road traffic. Road transport also acts as a feeder service to railway, shipping and air cargo. The management of ever-growing infrastructure is ably done under the aegis of the Ministry of Road Transport & Highways as the apex organization under the central government. Increased mobility and efficiency of the transport system of the country through effective planning, development and maintenance of roads is a part of vital responsibilities of MoRTH. The other stakeholders in road infrastructure are the state governments, local governments, panchayats and municipalities.

The growing need for managerial efficiency, technological evolution, and need for responsiveness have drawn large participation from private players in the road sector. government over the years has built innovative frameworks for building, maintaining and operating road infrastructure. In recent times, there has been exclusive focus on using newer technologies especially in the area of information and communication, to provide required edge to planning, monitoring and implementation of infrastructure projects.

RAHI – Roads and Highways Information System

In India, the volume of vehicles on road has been growing at a rate of 10% per annum. With the needs of growing economy and the expectations of effective governance, there is a distinct and plausible opportunity in using ICT for creating a national mechanism for road health monitoring and information dissemination to citizens. The information shall serve not only as a lever for effective supply chain and logistics planning, but also ensure optimal utilization of resources of government in varied conditions[3]. The information availability on the condition and status of any road in the country on a real-time basis is a critical gap which needs to be addressed as a service from the government.

There are various stakeholders who will benefit from an updated knowledge on road and traffic conditions. Real time update on road condition from an effective and reliable information channel shall not only serve the purpose of governance but also assist all public and private institutions, strategic defence, transport and logistics service providers, travelers, and the local citizens. Accurate information capturing, aggregation and dissemination of the road conditions shall enable meticulous road planning and monitoring resulting in extension of quality service to the public. This in turn will lead to a considerable impact on the economic lives of the people.

The large scale of road operations, the limitations of outreach and the need to handle large volumes of information in a transparent manner necessitates the use of ICT in road information delivery. Owing to the technology explosion, there are multiple ICT options in the form of tools and services available for creating a holistic view on current condition/status of roads. Devices such as mobiles, geo-positioning systems, GIS, remote sensing can contribute to the ecosystem of information for bridging the information gap on road and highways.

RAHI - the Concept

Information on the current road conditions will be collated with the help of various techniques. The information will be gathered on village roads, district roads, state highways and national highways. The mode of collection of this data will be with the help of crowd sourcing where the citizens will have a role to play and thus make Rahi more inclusive. Besides, satellite data can be

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[3] As per the WHO, the estimated road traffic death rate of India (18.9 per 1 lakh population) is higher than that of USA (11.4) and UK (3.7) and defect in road conditions is the cause of road accidents in 1.8% of the cases.

used effectively to trace information on roads. Moreover, GPS will be a better real time data collation tool with the help of which the current information on the road conditions will be available.
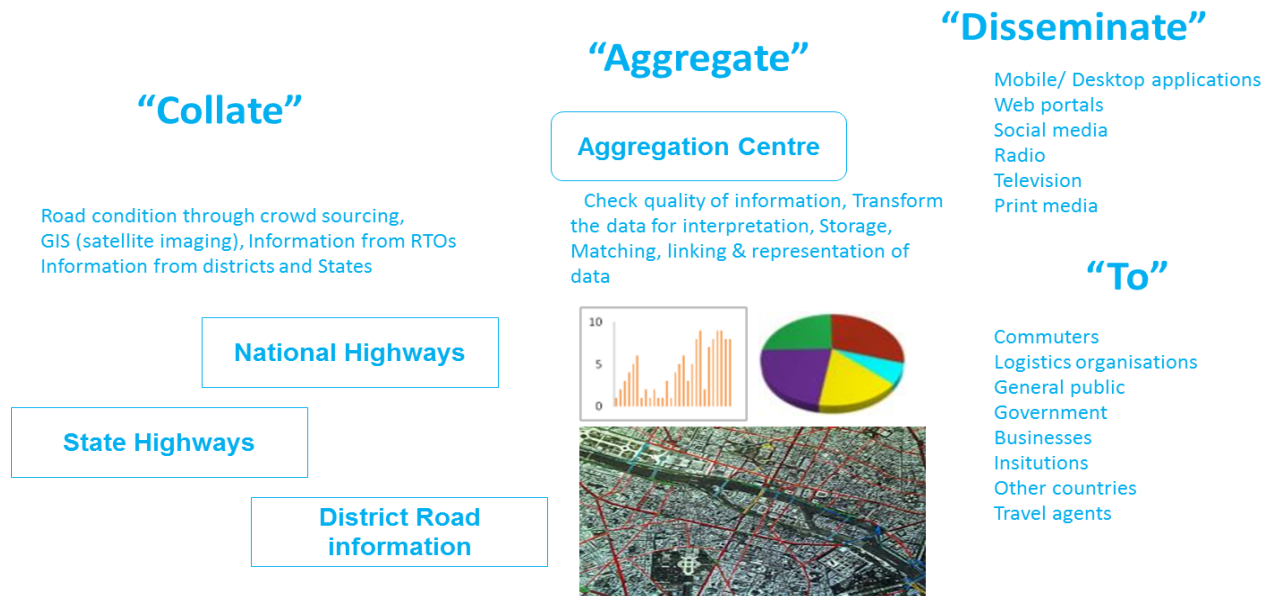
Aggregation of data from the district, state and the national highways will be occur in a central aggregation center where the data will be filtered and matched and visually represented on maps for easy interpretation. The aggregated data available on maps will be shared with the citizens and various other stakeholders with the use of ICT. This information gathered and aggregated into structured information will be available for various stakeholders such as commuters, various organizations, institutions, travel agencies, Government of India, institutions and the general public.

RAHI will be a holistic solution on road and highway transportation which will provide information on road signage, traffic signal, traffic conditions, fatality rates, vehicle suitability, and weather tolerance, number of lanes on a road and also the risk factor of the road among other parameters.
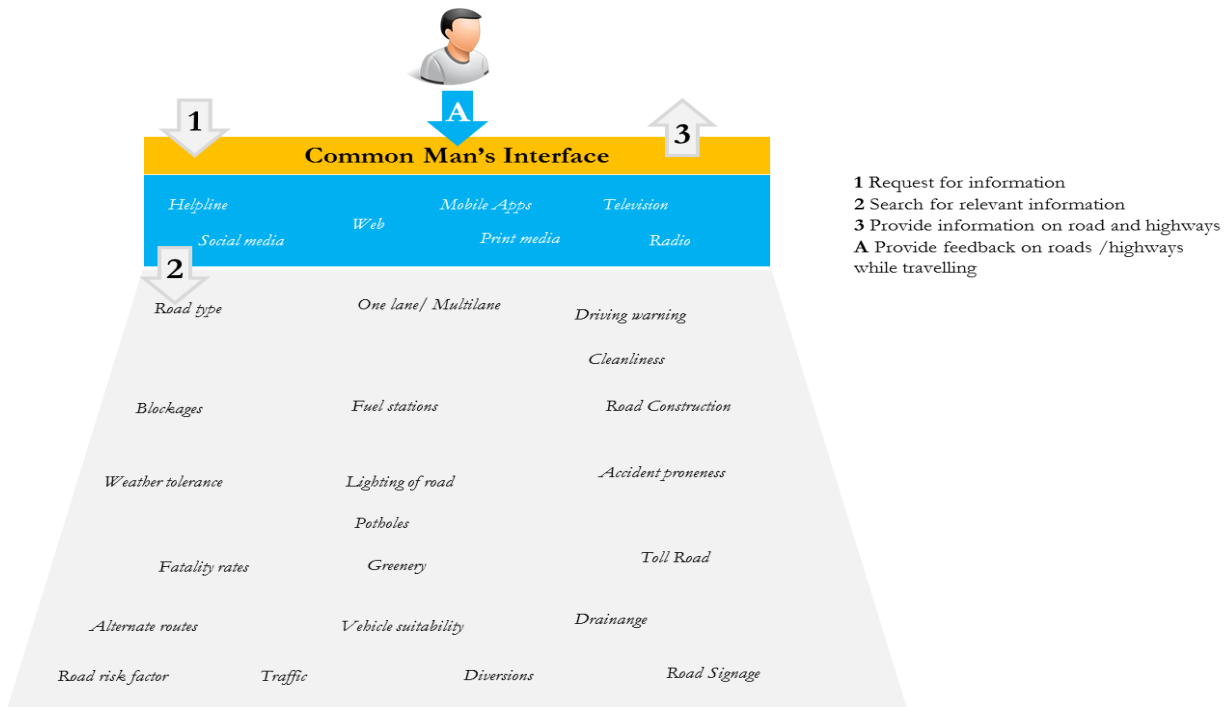
The mode of information dissemination of the information on road and highways shall include mobile and desktop applications, web portals, social media, radio, television and print media. Following is the high level process for information dissemination.

Process for Roads and Highways Information Dissemination

In order to access information related to any road /highway/ terrain, a preliminary information gathering about the enquirer will be carried out. This information will act as a filter to focus on the area of interest to the information seeker.

Preliminary information	Sample answers
What is your name?	xyz
What is your current location?	Delhi

What is your destination location?	Agra
What parameter would you like to find out about?	General road condition
	Traffic update
	Best route available
	Average time taken to reach destination
	Suitable for weather condition etc.

Based on the basic details of the information seeker, information related to selected criteria will be invoked. The proposed interface shall consist of different mechanisms of delivery of information services to the common person.

Interface Type	Description.
RAHI Helpline	Telephonic helpline to the information seeker Available in all Indian languages Supported by a back-end online system to query and inform Automated IVR based requests for information dissemination
Web based	An internet portal for all road related information containing repository of information about traffic, road condition, vehicle load capacity, lighting, safety, alternate routes etc.
Information Kiosk	Static information kiosks at offices of government departments or service delivery centres or Panchayats

Mobile/Desktop Application	Next generation mobile/desktop based information applications where one can register with parameters and information shall be provided to the citizen
Social Media	Various social media sites such as Facebook, Twitter etc. will provide real time updates on web pages
Radio /Television	Special road/highway updates will be run in between programs and also there will be a dedicated Rahi radio/tv program for taking SMS/phone/ internet queries from travelers for prompt resolution and also feedback about road conditions
Print Media	Daily updates on the lines of weather updates about the key information of roads/highways

Methodology for real time information dissemination

In order to provide critical information about safe roads, it is essential that the information reaches the traveler on the road well in time. Mobile applications, the fundamental carriers of information in today's era, can help in providing the same. Mobile phones, can tap the GPS coordinates of the journeying person, and pass it on to the control centre. The control centre shall extract the road condition from its central database (as stored in the central road & highway information database) and communicate it to the person on the move. For example, while travelling on NH-24, a traveler will be equipped with the knowledge about the various road options available to him/her to reach the destination and along with the road condition. Further, in case, the traveler chooses Route A, which is predicted to be safe for travel, however, while travelling, the traveler experiences deep pits on the same route, this information can be communicated to the control room for database update. The system proposed will be able to receive the information from the traveler through SMS etc. in order to keep the system current.

Issues might be identified and will be worked out in detail in the detailed feasibility study of RAHI in future.

Benefits of RAHI

► Resource optimization for building roads in terms of optimal utilization of material, financial resources, manpower and machines.

► Tracking & monitoring of road conditions and road construction

► Strategic planning of road network

► Periodic and efficient maintenance of roads & highways

► Enhanced road safety

► Effective time management for the traveler

► Quick identification of the loopholes in road health

► Socially inclusive road maintenance

► Readily available information in the public domain

Implementation Plan

There are various options available for full scale implementation of Rahi.

► Rahi sponsored completely by the Government of India

► Rahi to be outsourced to private players

The participation of private players provides the much needed efficiency and transparency in project implementation. It is a dependable method for leveraging the professional and technical competence of the Industry in the area of real-time information update & dissemination. Hence, the most preferred option for implementation of the plan would be to adopt a Public Private Partnership (PPP) model where an open tender would be floated to which various private parties can provide their expression of interest for the implementation of Rahi.

6.5. Agriculture 2.0

The Centrally sponsored Mission Mode Project in Agricultural under NeGP (NeGP-A) has been under implementation since 2010-11. It aims to achieve rapid development of agriculture in India through the use of ICT by ensuring timely access to agriculture related information for the farmers of the country. A number of current IT initiatives/schemes undertaken or implemented by DAC which are aimed at providing information to the farmers on various services in the agriculture value chain are being integrated to enable farmers to make proper and timely use of the available information. 12 clusters of services have been identified for such integration including information on Pesticides, Fertilizers and Seeds; Soil Health; Information on crops, farm machinery, training and Good Agricultural Practices (GAPs); Weather advisories; Information on prices, arrivals, procurement points, and providing interaction platform; Electronic certification for exports and import; Information on marketing infrastructure; Monitoring implementation / evaluation of schemes and programmes; Information on fishery inputs; Information on irrigation infrastructure; Drought Relief and Management; Livestock Management.

Agriculture being a major sector of Indian economy, the Department of Agriculture and Cooperation (DAC) has proposed to formulate and implement a new MMP named as '**Agriculture 2.0**' under e-Kranti. It is proposed to cover the following areas under Agriculture 2.0:

1. **Agriculture Census**. Periodic Agriculture Censuses are the main source of information on basic characteristics of operational holdings such as land use, cropping pattern, irrigation status, tenancy, terms of leasing, dispersal of holdings etc. Present system of survey, data compilation and analyses needs to be modernised with the help of suitable applications, GIS and handheld devices so as to gather data at the state level which will be leveraged at the national level in the form of a dashboard for use by various policy planners, industry and academia.

2. **Cooperation**. The basic objective of the Cooperation Division is to design long term and short term strategies for reducing economic disparities between the downtrodden rural people and

the rural rich as well as regional imbalances including rural and urban differences. Cooperation Division is implementing two Central Sector Plan Schemes in the country during the year 2012-13, namely Restructured Central Sector Scheme for Cooperative Education and Training and Restructured Central Sector Scheme for assistance to NCDC Programmes for Development of Cooperatives. A comprehensive application to cover all aspects of the cooperation movement or division is proposed as part of Agriculture 2.0.

3. **Credit**. Agriculture is a dominant sector of our economy and credit plays an important role in increasing agriculture production. Availability and access to adequate, timey and low cost credit from institutional sources is of great importance especially to small and marginal farmers.   Along with other inputs, credit is essential for establishing sustainable and profitable farming systems. Most of the farmers are small producers engaged in agricultural activities in areas of widely varying potential. Experience has shown that easy access to financial services at affordable cost positively affects the productivity, asset formation, and income and food security of the rural poor. The major concern of the government is, therefore, to bring all the farmer households within the banking fold and promote complete financial inclusion. Asoftware covering Credit and Agriculture Insurance will bring efficiencies in this important area.

4. Integration of farmer oriented services of ministries other than agriculture which have direct or indirect impact on agriculture including Ministry of Rural Development, Water Resources, Chemical and Fertilizers, Forest and Environment etc.

5. Areas under Animal Husbandry, Dairying and Fisheries which were not covered under the current NeGP.

6. Integration of Research and Development initiatives in Agriculture and Allied Sector.

   * The aforementioned write-up on Agriculture 2.0 MMP has been shared by D/o Agriculture and Cooperation and it may change subsequent to their internal approval process.

6.6 National Geographical Information System

India has a geographical area of around 3.3 million sq kms and a population of 1.2 billion, of which an estimated third leaves in urban areas. India has more than 6.40 lakh villages and more than 5200 cities/towns. India has around 1.4 million sq kms under active agriculture but still has one-sixth of its total area in wastelands. With just about 22% under forest/vegetation cover and a coastline of around 7500 kms, the environmental and ecological challenges are many.

There is a need of efficient national information systems that will have to be the foundation for the governing and the governed – bringing the assessment of development needs, bridging disparity and gaps, bringing equity, transparency, inclusivity and citizen participation. Advanced information systems with technologies of metrics and measurement of disparity/needs/plans/implementation etc., advanced computing and data mining and special technologies of databases would be extremely important.

One such area is Geographical Information Systems (GIS) – surveying/imaging/mapping; geospatial databases with geo-tagged tabular data; integrative geographical applications that will form a GIS based Decision Support System (DSS) will be essential and important. GIS is an important technology area which brings vast benefits to governing systems and also to the stakeholders (citizens) by bringing about the geographical depiction of disparity (gaps/needs) and development. GIS forms the basis of a DSS that is powered by latest image and map information and transforms reaming tables into graphic maps.

NGIS is a demand driven project to develop a mechanism to ingest geo-spatial data held by a number of organizations such as Survey of India, NIC, MoES, etc. and develop decision support tools. It is a well focused mission oriented programme for incubating an organization entity to institutionalize and operationalize GIS needs for decision support, development needs of the civil society and security vetting of NGIS products. The NGIS is proposed to be a part of overall ecosystem of e-governance and have a service orientation and outcome orientation. The NGIS will be a collaboration of DeitY, DoS and MoES along with DST.

Background:

In 1983, National Natural Resources Management System (NNRMS) was initiated by Department of Space (DoS) to popularize use of satellite and provide thematic products based on space image. It is managed by a Program Committee (PC-NNRMS) chaired by Member (Science), Planning Commission and a Standing Committee with various user ministries chairing them. NNRMS is a coordinating platform and mechanism for GIS related agencies to meet and collaborate. It is essentially an imagery support system to natural resources management with limited features. It is primarily a supply side intervention and not yet a decision support tool.

In 2009, during agrarian crisis, DST evolved the concept of Geospatial Decision Support Systems (Geo DSS) for Geospatial Governance (g-Gov). In 2011, Planning Commission constituted an Interim Core Group (ICG) for National GIS with Secretary, MoES as Chairman in which DST, DoS, DeitY and other experts were members. Subsequently, the vision document on National GIS was unanimously supported by all ministries concerned including DoS.

Benefits:

NGIS is a well-focused mission oriented programme for incubating an organization entity to institutionalize and operationalize GIS needs for decision support and civil society requirements. Commercial providers are also important stakeholders in this programme. It is a realistic demand driven project. The product features and specifications are endeavored to be designed as per the users and stakeholders' requirements.

Challenges:

There is a need to clearly define the usage of GIS (Services) at greater granularity, assessing cost benefit ratio, identifying efficient and cost effective approach for the use of GIS assets, creating a high level architecture that depicts how the request for identified services are received, process and fulfilled.

Outlay:

Total proposed cost of NGIS is Rs. 3000 crores. Planning commission has allocated Rs. 1800 crores for the scheme. Balanced amount is proposed to be pooled from participating ministries.

Current Status of NGIS:

A draft Cabinet Note developed by DST on NGIS was circulated on 14th November, 2013. Based on the comments received from departments concerned, DST is currently finalizing the cabinet note.

6.7. Rural Development

Under Mahatma Gandhi NREGA, new technologies, concepts and platforms e.g. mobile platform, Cloud computing, GIS, use of latest ICT devices and Aadhaar may be leveraged to make the implementation of the the scheme more effective.

For MGNREGA, use of above technologies and concepts are essential and must be considered while preparing the DPR for Mission Mode Project called "Rural Development" under e-Kranti.

1. **Mobile Technology:-**

Integration of the mobile platform for service delivery would enable the Programme to reach out to citizens in the remotest corners of the country. MGNREGA may be taken as a model scheme for use of mobile technology as it is being used in AP for capturing the key processes at the field level viz. attendance, measurement, etc. MGNREGA is planning to use mobile technology in other states also.

2. **Use of Hand Held Devices (HHD):**

Looking at the inadequate internet connectivity, electricity and ICT infrastructure at lowest level (worksite level/ GP), the latest HHD (mobile phones, tablets/ phablets) may be used to capture the transactions at the field level. DeitY shall provide assistance to ministries/ departments in developing/ customizing the mobile apps.

3. Server Capacity:

Under MGNREGA, there is huge requirement of data storage as compared to other schemes as the transaction level data is being captured and is entered from Blocks/GPs across the country. Therefore, to meet the requirement, Cloud computing (Infrastructure as a Service- IaaS) may be of great use.

4. DBT Payments:

MGNREGA is making e-payments to workers using the NEFT/RTGS platform. MGNREGA has also initiated the Aadhaar based Payments which are planned to be up scaled. The programme data base has seeded with more than 1 core Aadhaar numbers. These Aadhaar numbers are being authenticated using the server to server integration with the AUA/ASA and UID CIDR.

5. GIS for Asset Monitoring:

GIS technology is being also explored for better asset monitoring and planning purposes.

6. Use of IVRS Technology:

Under MGNREGA, use of IVRS technology can greatly help workers to register their demand for work, register their grievances and know their entitlements.

7. Training and Capacity Building:

Since MGNREGA MIS (NREGASOFT) has been developed and maintained by NIC, state NIC teams may help in training and capacity building of the state functionaries.

6.8. Social Benefits

Social justice and empowerment of weaker sections of society is essence of Constitution of India. Article 46 of Part IV ("Directive Principles of State Policy") of the Constitution enjoins upon the state to promote with special care the educational and economic interests of the weaker sections of the people, in particular, of the Scheduled Castes and the Scheduled Tribes. Article 38(2) of the same Part also enjoins upon the state to minimize inequities in income and to endeavour to eliminate inequalities in status, facilities and opportunities, not only amongst individuals but also amongst groups of people residing in different areas or engaged in different

vocations. As mentioned by the International Labour Organization, "Social security systems contribute not only to human security, dignity, equity and social justice, but also provide a foundation for political inclusion, empowerment and the development of democracy." In keeping these fundamental principles in mind and applying innovative ICT intervention for various social sector schemes, "Social Benefits" MMP has been envisaged.

The key services planned to be offered under the "Social Benefits" MMP are as follows:

1. <u>Scholarships schemes under Ministry of Social Justice and Empowerment (MoSJE):</u> Electronic disbursement of scholarships through a National e-Scholarship Portal in respect of scholarships granted by MoSJE under various schemes for Scheduled Casts (SCs), Other Backward Classes (OBCs) & Persons With Disabilities (PWDs).

2. <u>Online processing of applications for grants-in-aid submitted by NGOs for implementation of various schemes under MoSJE:</u> In this regard, NGO Partnership System Portal (http://ngo.india.gov.in/) (NGO-PS) has been developed to act as a platform of interface between Voluntary Organizations (VO) / Non-Governmental Organizations (NGO) and key ministries / departments / government bodies. Later it is proposed to cover all central ministries / departments / government bodies. The key ministries/departments/ government bodies in the first phase are M/o Culture, M/o Health & Family Welfare, M/o Social Justice & Empowerment, M/o Tribal Affairs, M/o Women & Child Development, D/o Higher Education, D/o School Education & Literacy, Council for Advancement of People's Action and Rural Technology (CAPART), National AIDS Control Organisation (NACO) and Central Social Welfare Board (CSWB). This is a free facility offered by the Planning Commission in association with National Informatics Centre to bring about greater partnership between government & voluntary sector and foster better transparency, efficiency and accountability.

3. MoSJE: Development of a platform to provide a comprehensive business and technology solution for supporting social program lifecycle and service delivery. This may also be leveraged by a number of ministries / departments to effectively manage various social programs and individual cum community welfare oriented schemes being implemented by them and enable comprehensive scrutiny of the benefits generated across schemes.

4. Services under Ministry of Labour & Employment (MoL&E):

a. Unified Portal for Registration, Reporting of Inspections and Grievance Redressal.

b. Management Information System (MIS) Project for Industrial Training Institutes (ITIs).

c. Convergence of Social Security Benefit Scheme on Rashtriya Swasthya Bima Yojana (RSBY) Card.

d. Project for Building & Other Construction Workers and Cess Fund.

6.9. Women and Child Development

Introduction:

The Department of Women and Child Development was set up in the year 1985 as a part of the Ministry of Human Resource Development to give the much needed impetus to the holistic development of women and children. With effect from 30.01.2006, the Department has been upgraded to a ministry.

Mandate:

The broad mandate of the Ministry of Women & Child Development is to undertake holistic development of Women and Children. The ministry formulates plans, policies and programs; enacts/ amends legislation, guides and coordinates the efforts of both governmental and non-governmental organizations working in the field of Women and Child Development. The ministry also implements various innovative programs for development of women and children. These programs include welfare and support services, training for employment and income generation, awareness generation and gender sensitization. These programs are supplementary and complementary to the other general developmental programs in the health, education, rural development sectors, etc.

The proposed MMP on Women & Child Development proposes ICT enablement of all the aforesaid programs with data sourcing from various related development programs / formations, i.e. Health Centers (HCs) / Primary Health Centers (PHCs) besides health workers (Anganwadi workers and ASHA workers) contributing in data gathering from ground level at villages/blocks.

6.10. Common IT Roadmap for Para Military Forces

Introduction

The Central Armed Police Force (CAPF) (also known as Central para-military Forces) functioning under the Ministry of Home Affairs (MHA), Government of India are responsible for maintenance of internal security and public order by aiding law enforcement agencies of States and Union Territories and the armed forces of India.

The core functioning of CAPFs with respect to manpower management and planning, resource allocation and scheduling, strategic and tactical deployment of resources, efficiency of operations, logistics, communication systems, inter-relationships with other CAPFs and law enforcement agencies, optimization of inventory, management of employee benefits and ensuring the welfare of employees and many other associated organizational functions unique to CAPFs lead to complex planning and decision making challenges.

To address these complexities of functioning, all the CAPF organizations have identified IT based transformation and e-Governance as the key enablers to improve the efficiencies and effectiveness of service delivery.

Various e-Governance initiatives have been taken up by these organizations i.e. {Assam Rifles (AR), Border Security Force (BSF), Central Industrial Security Force (CISF), Central Reserve Police Force (CRPF), Indo-Tibetan Border Police (ITBP), National Security Guard (NSG), Shasatra Seema Bal (SSB)} in the last decade which have brought about significant changes in the way the concerned Departments and Agencies linked with these CAPFs had conducted their business in the past. Further, most of the CAPF organizations are in the mode of upscaling their manpower strength and infrastructure in line with their transformational goals.

Most of the e-Governance initiatives undertaken by CAPFs have been individually driven by each of the organizations and have been mostly initiated as a response to isolated requirements

of departments, divisions and units of the organization. This has led to a situation of multiple Information Technology (IT) systems and applications across various organizations built on different technologies and technology platforms without any data sharing and transfer within and across various organizational units to realize the benefits of Information Technologies in terms of providing inputs for improved decision making.

MHA conducted an assessment of the ICT solutions currently implemented in CAPFs and has prepared an ICT Roadmap for 2013-18 which entails development of Common Core Applications covering the following modules:

1.   Personnel Information System
2.   Provisioning & Inventory
3.   Payroll, Account, Budget & Finance
4.   Training & Sports
5.   Works & Engg.
6.   Ops & Intelligence
7.   Hospital Management Information System

Organizational Requirement:

The key generic functional requirements for improving the operational efficiencies of all the CAPFs, which would be part of the newly proposed MMP are as under:=

•   Resource scheduling for manpower deployment
•   Information for quick redeployment of forces
•   Sharing of real-time information across Central Police Organizations /CAPF and the State police departments
•   Common procurement of resources for aiding in the functions of CAPFs for effective realization of economies of scale
•   Optimization of ICT infrastructure resources across organizations
•   Development of common data models and interoperability standards across CAPFs

- Harnessing operational efficiencies in Inventory and Logistic solutions for CAPFs

- Development of a common national level monitoring system for resource mapping and effective human resource management and;

- Providing efficient back office services to the employees of CAPFs with respect to payroll, Leave management, Pensions and welfare activities.

6.11 e-Bhasha

Delivering e-government services in Indian languages is vital for increasing the access to these services for all the people, especially those living in the rural areas. With this objective in view, a new MMP named as "e-Bhasha" has been proposed under the ownership of DeitY.

The proposed e-Bhasha MMP would incorporate and build upon the current efforts being made for localization of e-government applications and services. The www.localisation.gov.in portal is a one stop shop for relevant standards, best practices, tools and technologies for realizing the dream of localizing all the e-government services in Indian languages. The portal is also equipped with a dashboard which reveals the usage of various standards, tools and technologies and helps in understanding the additional requirements, if any. Moreover, the portal is equipped with services such as transliteration (from English to Hindi, Bengali, Malayalam, Marathi, Punjabi and Gujarati), legacy code to Unicode convertors, JavaScript based onscreen INSCRIPT keyboard and Sakal Bharati Open Type Font to start with for integration with the MMPs. The portal is aimed at dissemination of knowledge base and also has training material for System Integrators so that standards will be followed at each stage of development.

The Localization Programme Management Framework (LPMF) has been envisaged to help localize applications under the MMPs. Various localisation related services, handholding and training are being offered through the tools / services section of the portal. LPMF has already been leveraged by some MMPs such as are e-District, Health, Passport, Agriculture, Road Transport, Public Distribution System and Education for localisation of their applications in Bangla, Gujarati, Hindi, Marathi, Malayalam and Punjabi.

The following are two types of localization performed under LPMF:

1. **Surface localization:** It pertains to translation of information, more specifically user interface or static content on a web page, rendered on-the-fly to a user in the desired local language. Surface localization of a web page is facilitated through a simple browser based plug-in that can be downloaded and installed once by the end user. The surface localisation is achieved by a cloud based LPMF running at the backend encompassing several tools and linguistic resources such as machine translation, term banks, translation memories, etc. Surface localization is achieved without changes made to the source code and hence, 100 percent accuracy is difficult to achieve. Contributions from the respective projects, therefore becomes very essential to improve the surface localization output.

2. **Internal localization:** It pertains to the dynamically changing data/content, especially querying the data in the local language, sort order, locale, common locale data repository, report generation, printing, multimodal interfaces like mobile handset, text to speech, handwritten recognition, speech recognition, etc. The internal localization may demand the backend database to be multilingual and may also require architectural changes while developing the application, wherein accuracy levels of the data stored and presented to the end user is very high. Internal localization necessitates involvement of the developers/system integrators to carry out all necessary changes to the source code and linked databases. At every stage of development and deployment, compliance to standardization and localization best practices is most essential (can be found on https://egovstandards.gov.in/).

The following diagram depicts an overview of the functional architecture of LPMF:
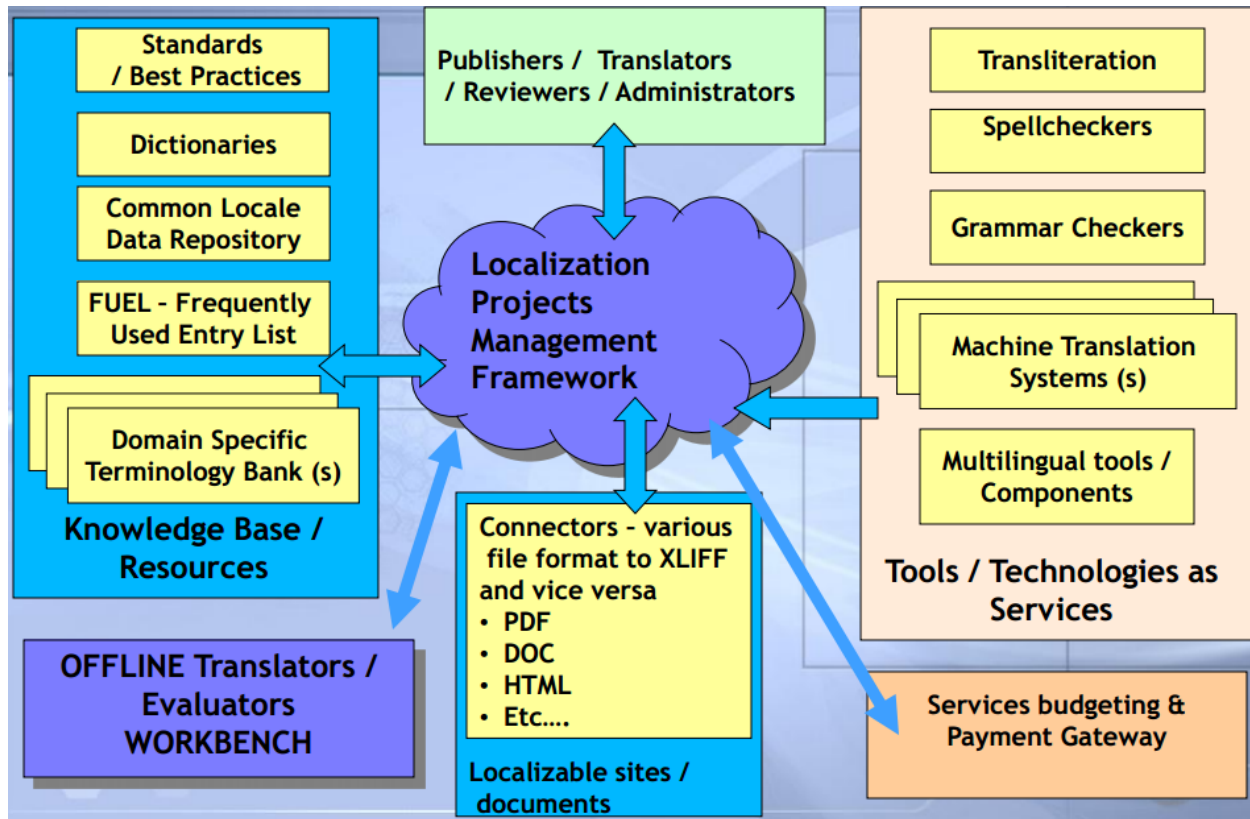
Figure 10: LPMF architecture

Following benefits can be reaped by leveraging LPMF:

    i.   Workflow optimization

   ii.   Knowledge Repository

  iii.   Standards usage - XLIFF

  iv.   Machine Translation System (Consortia MT engine)

   v.   Synchronization of various components

  vi.   For surface localization no need of source code (on the fly)

 vii.   Bringing translators, evaluators, Project Managers, publishers, tools provider on a single

        platform.

viii.   Workflow saves money, time and infrastructure.

  ix.   Believes on leveraging prior / existing knowledge

The following key services / tools can be leveraged from the localization portal:

1. **Transliteration Web Service** is also offered through the LPMF platform which provides the transliteration from English to Indian Languages. The languages supported are Hindi, Marathi, Gujarati, Bengali, Malayalam and Punjabi. The method exposed for getting the transliteration is easy to use and is based on standard SOAP protocol. It can be easily integrated in any client application supporting SOAP protocol.

   The service can be accessible from following URL:

   i.   http://gisttransliteration.in
   ii.   http://gisttransliteration1.in
   iii. http://gisttransliteration2.in

   The transliteration service is used for providing transliteration support on the web. It is also intended to be used by browser based toolbar.

2. **GIST Data Converter Tool** converts existing data encoded in proprietary font code. It is quick and handy tool for converting data within the file from ISFOC format to Unicode and Transliteration from English to Indian languages and vice versa. It also supports bulk conversion i.e. large number of files can be converted in single execution. The various file types supported by the tool are Text File (*.txt), Microsoft Excel (*.xls, *.xlsx), Microsoft Word (*.doc, *.docx), Microsoft PowerPoint (*.ppt, *.pptx), CSV File (*.csv), HTML File (*.htm, *.html), ODT File and ODS File. It also supports the databases based on MS SQL Server (2005, 2008, 2008 R2, 2012), My Sql (5.5 or higher) and Oracle (10g or higher).

The following diagram depicts a sample output of GIST Data Converter Tool:
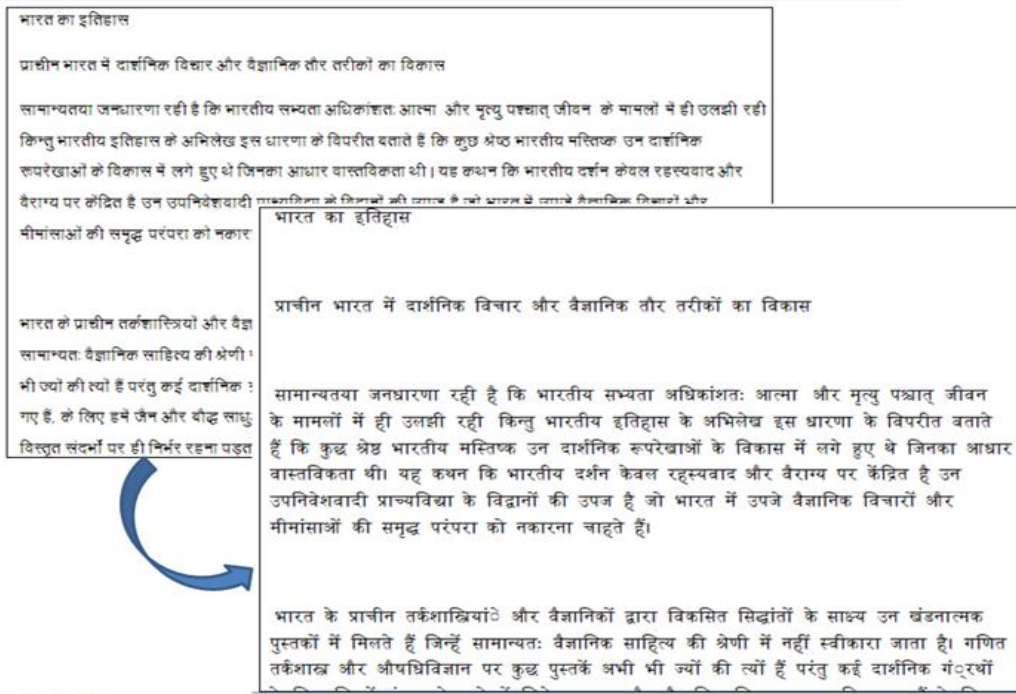
3. **INSCRIPT Floating Keyboard** is a JavaScript based Indian language typing mechanism and provides for Hindi, Marathi, Gujarati, Bengali, Panjabi and Malayalam languages with Unicode 6.2 enhanced INSCRIPT layouts. It supports various web browsers such as Internet Explorer, Google Chrome, Mozilla Firefox, etc. The source code and guide for this keyboard may be downloaded from http://localisation.cdac.in. Following is a snapshot of the keyboard:
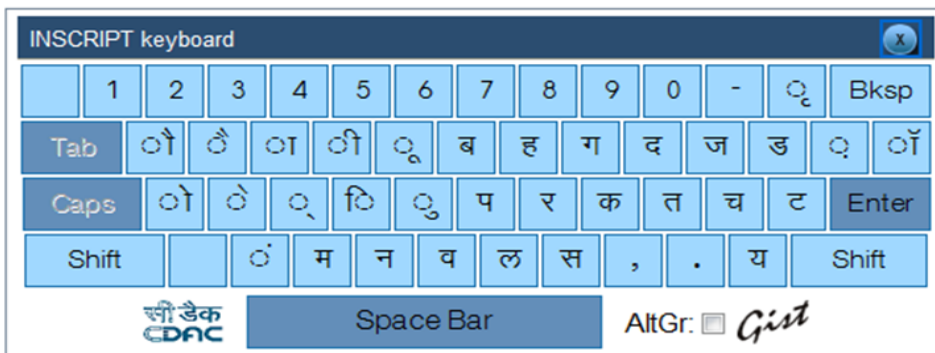
Following are the various ways in which ministries / departments may leverage the LPMF platform:

1. Surface localization of static content: LPMF can be used for surface localization by installing and using the surface localization plugin available for download from the "Tools" section of http://localization.gov.in/. To improve the localization output, they can obtain a username & password from C-DAC and start editing the automated translations rendered by the surface localization plugin.

2. Internal Localization: Awareness/training workshops on internal localization are organized on a regular basis at C-DAC Pune. Announcement of upcoming workshop(s) are made on http://localization.gov.in/ under the "Training" section. Departments can also get their developers/SIs trained for internal localization of applications being planned or already implemented under their MMP through these workshops. C-DAC can provide further guidance/help wherever required thereafter.

7. Overall Strategy and Approach

(i)   Evolution of e-Governance is a highly complex process requiring provisioning of hardware & software, networking, process re-engineering and change management. In a truly e-governed system there should be minimal human intervention and decision on cases should be 'system driven' rather than 'individual driven', thereby curtailing the scope for subjective interpretation in the process of disposal of cases, particularly routine cases. In the past, a number of Mission Mode Projects and other e-Governance initiatives have been undertaken and some of them have succeeded while some have not produced the desired results or withstood the test of time. A prudent approach, therefore, is proposed for the NeGP, which is based on lessons learnt from the past and experiences from successful e-Governance applications that have been implemented nationally and internationally.

(ii) The Apex Committee on NeGP under the chairmanship of Cabinet Secretary accorded in-principle approval on e-Kranti fundamentals and revamping of NeGP portfolio in its meeting held on 18th March, 2014. The Minutes of this meeting are at **Annexure-1.**

(iii) Considering the learnings from the successes and failures of MMPs / e-governance initiatives in the country and the world and the recommendations/ observations made by the Apex Committee on NeGP, the following **Approach/ Methodology** is proposed to be adopted for the NeGP 2.0:

a.   For the implementation of NeGP, ministries / departments would leverage the common and support infrastructure (National/State Wide Area Networks, National / State Data Centres, Common Services Centres, Electronic Service Delivery Gateways and the Mobile Service Delivery Gateway) created by DeitY and make suitable arrangements for monitoring and coordinating the implementation of NeGP 2.0 under the directions of the competent authorities in this regard. It would also evolve/ lay down standards and policy guidelines, provide technical and handholding support, undertake capacity building, R&D, etc., as required for successful implementation of various e-governance

projects. DeitY would adequately strengthen itself and its various arms like NIC, STQC, CDAC, NISG, etc., to play these roles effectively.

b. Mission Mode Projects would be owned and spearheaded by various line ministries concerned for central government, state government and integrated projects (**Annexure–2**). The ministry/department would be entirely responsible for all decisions connected with its Mission Mode Project(s). Decisions having an impact on the overall NeGP would, however be taken in consultation with DeitY and with the approval of the competent authority. 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 would 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 department concerned would form an Advisory Committee on which users would also be represented. DeitY would prepare a suitable template for preparing project documents, which could be used by individual departments for preparing their detailed project reports. Wherever required by the ministries/ departments concerned, DeitY would provide necessary support for project formulation and development.

c. The existing/ ongoing projects in the MMP category, being implemented by various central ministries/departments/states would be suitably augmented/ enhanced to align them with the objectives of NeGP 2.0.

d. States would be given flexibility to identify a few additional state-specific projects (not exceeding 5), which are very relevant for the economic development of the state. In cases where central assistance is required, such inclusions would be considered on the advice of the concerned line ministries/departments.

e. e-Governance would be promoted through a centralised initiative to the extent necessary to ensure citizen service orientation, to realise the objective of

interoperability of various e-governance applications and to ensure optimal utilisation of ICT infrastructure/ resources while allowing for and adopting, as a policy, a decentralised implementation model.

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

g.   Public Private Partnerships (PPPs) would be promoted wherever feasible to enlarge the resource pool without compromising on the security aspects.

h.   Adoption of unique identification codes for citizen, business and property would be promoted to facilitate integration and avoid ambiguity.

8. Implementation Strategy

(i) For implementation of the NeGP 2.0, 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 NeGP 2.0 as a programme, with well-defined roles & responsibilities of each agency involved, and to create an appropriate programme management structure.

(ii) For the NeGP 2.0, following **role assignments/ responsibilities** are being followed/ proposed:

a. Apex Committee (NeGP), which has already been constituted with Cabinet Secretary as its Chairman and Secretary, DeitY as its Member Convener, would be overseeing the programme and providing policy and strategic directions for its implementation and resolving inter-ministerial issues. **(Refer Annexure-3).** The Apex Committee, in addition would moderate and drive services, process reengineering and service levels of each MMP, wherever required.

b. Line ministries/departments would be responsible for the implementation of the assigned Mission Mode Projects (MMPs)/Components as indicated in **Annexure-2.** Mission Mode Projects would be owned and spearheaded by various line ministries for central government, state governments and integrated projects (**Annexure–2**). 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 the state sector MMPs, under the overall guidance of respective line ministries in cases where central assistance is also required.

An Apex Committee would also be constituted at the state level headed by the Chief Secretary. 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 NeGP 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-2.** DeitY would also prepare a suitable template for preparing project document, which could be used by individual departments for preparing their detailed project reports.

e. DAR&PG's responsibility would be towards generic process re-engineering and change management, which are desired to be realised across all government 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 NeGP 2.0 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 established as a platform to share the best practices in Mission Mode Projects under NeGP and new e-governance initiatives of DeitY would continue to perform its envisaged roles and responsibilities.

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

8.1. Programme Management

(i) For effective management of the NeGP 2.0, a programme management structure has been proposed that will accord credibility to the programme, provide a forum to solicit views of stakeholders, oversee the programme, resolve inter-ministerial/ inter-departmental issues and ensure speedy sanctioning of projects. The structure would have the needed secretarial/ monitoring/ technical support and appropriate decentralization of power and responsibility to ensure effective execution of the various projects/ components by the implementing departments/ teams.

(ii) Key components of the proposed **Management structure** would be same as in existence for NeGP:

a. **Cabinet Committee on Economic Affairs** (CCEA) for programme level policy decisions.

b. **A body under the Chairpersonship of Prime Minister (PM Committee on NeGP),** which has been constituted with representation drawn from relevant ministries/ departments, the National Knowledge Commission, the Planning Commission, experts, etc., to provide leadership, prescribe deliverables and milestones, and monitor periodically the implementation of the NeGP.

c. **National e-Governance Advisory Group,** which has already been constituted**,** headed by the Minister C&IT, to solicit views of external stakeholders and to provide inputs to the CCEA, advise the government on policy issues and strategic interventions necessary for accelerating introduction of e-governance across central and state government ministries/departments. Order constituting this Group is at **Annexure 4.** The composition of the Advisory Group would be amended to include representative from the Planning Commission and 3 to 4 representatives from states/UTs and other line ministries/departments on a rotational basis.

d. **Apex Committee** headed by the Cabinet Secretary (with the composition and role as indicated at **Annexure 3**) would be overseeing the programme and providing policy and strategic directions for its implementation and resolving inter-ministerial issues. In addition, it would moderate and drive services, process reengineering and service levels of each MMP wherever required. **Further it would be empowered to add or delete MMPs as considered appropriate** and to resolve all inter-ministerial issues.

e. **Expenditure Finance Committee (EFC)/Committee on Non Plan Expenditure (CNE)** to financially appraise/ approve projects as per existing delegation of financial powers. The EFC/ CNE headed by Secretary Expenditure would also be recommending to the CCEA the manner in which MMP Projects are to be implemented, i.e. as a Central Sector Scheme, Centrally Sponsored Scheme etc, as well as the financial terms of participation for States. A representative of the Planning Commission would also be included in both the EFC and CNE.

f. Further, considering the complexity of the Programme and the need to look at issues such as overall technology architecture, framework, standards, security policy, funding strategy, service delivery mechanism, sharing of common infrastructure etc. at a program level, it is proposed that the technical appraisal of all NeGP projects be done by DeitY, prior to a project being placed before the EFC/ CNE. This appraisal would cover issues relating to project design, optimal utilisation of infrastructure, compliance with the interoperability standards etc. The Secretary, DeitY or his representative may also be included as a standing special invitee to all EFC/CNE meetings, which are appraising/approving MMPs. It may be mentioned that the DeitY has already set up a Programme Management Unit, namely National eGovernance Division (NeGD) to provide support to departments in conceptualizing, developing, appraising, implementing and monitoring respective MMPs.

g. **State level Apex Committees** headed by Chief Secretaries to allocate State level resources, set priority amongst projects and resolve inter-departmental issues.

(iii) For the efficient management of the NeGP 2.0, inclusion of Project Management Information System would be mandatory in each new and existing Mission Mode Project to capture the real time or near real time details about the progress of the project. This tool

should be proficient enough to capture the parameters for each stage of project namely – conceptualization and development, implementation and post implementation. The parameters could be decided in consultation amongst line ministries / departments, DeitY and D/o PMD. The aforesaid tool would also seamlessly feed the data to Programme Management Information System so that each MMP could be tracked for the progress and delivering the envisaged services in an effective, efficient and time bound manner.

9. Programme Implementation Schedule

It is proposed to launch the NeGP 2.0 as a National Programme with the Management Structure as proposed above. Roles and responsibilities of various government entities would be as indicated above. Various projects/ components of the NeGP 2.0 would be entrusted to concerned Line ministries/ departments and these ministries/ departments would be assigned responsibilities to steer their respective component/ project within the overall guiding framework set out for the NeGP 2.0. A typical activity wise implementation schedule for various Mission Mode Projects/components under NeGP 2.0 is shown below.

Proposed GANTT Chart for NeGP - 2 (e-Kranti)										
Time Lines in Months (T0)	2	4	6	8	10	12	14	16	up to 28	up to 36
Sl. No / Description of Activity										
1 Award of work order for Core Scoping										
2 Preparation of Core Scoping Document										
3 Approval of submitted Core Scoping Document										
4 Award of work order for Detailed Project Report										
5 Detailed Project Report Preparation (DPR)										
6 DPR Approval and Fund Allocation										
7 Preparation and Floating of RFP										
8 Selection of Implementing Agency (IA) & Award of Contract										
9 Implementation of MMPs										
10 Stabilization and Roll Out										
1) T0 : Start of the project										

Figure: 11 Milestone based project implementation of NeGP 2.0

10. Funding Arrangements

At present, source of funding for most of the e-governance projects is either through plan or non-plan budgetary provisions of the respective ministries/ departments in central or state governments, though some projects are also being implemented on a self financing model through levy of service fee adopting PPP model. Requirements of funds for most of projects are still being worked out by the respective nodal ministries/ departments. At this stage, therefore, approval is being sought for the **overall approach, implementation strategy and structure of NeGP 2.0** and not for any financial allocation.

Annexure 1: Minutes of Apex Committee Meeting

F. No. 7 (2)/ 2012 – EG I (Pt-II)
Department of Information Technology
Ministry of Communication and Information Technology

MINUTES OF THE
MEETING OF THE APEX COMMITTEE ON NeGP

Venue   Room No. 1007, Electronic Niketan, New Delhi
Date   18th March, 2014
Time   1100 Hrs

A meeting of the Apex Committee on NeGP was held on 18thMarch, 2014 under the chairmanship of Sh. Ajit Seth, Cabinet Secretary, Government of India. The list of participants is at **Annexure 1.**

2. **Joint Secretary (e-Gov), Department of Electronics and Information Technology (DeitY)**, welcomed the participants. He briefly referred to the significant progress in the implementation of various MMPs since the last meeting on 5th November, 2013. The number of MMPs delivering services has gone up to 24, with the 'e-Biz' project going live during this period. The total number of services being delivered by all the MMPs has reached 222. The average monthly transactions reported on 'e-Taal' has also exceeded 11 crores for all the MMPs.

3. **Cabinet Secretary and the chairman, Apex Committee,** in his opening remarks, stated that DeitY has undertaken several new initiatives during the year 2013-14. These include launch of GI Cloud, e-Gov AppStore and 'e-Taal Dashboard'. Significant improvements and enhancements have been made to Mobile Seva, Localization and Open Data Platform. The aggregate transaction count of 'e-Taal' has increased to more than 300 crores since January, 2013 till date and the monthly transaction rate has gone up to over 24 crores. He also mentioned that adoption of e-Office has increased with 77 Departments / organizations now covered. Cabinet Secretary also mentioned that a concept note titled 'e-Kranti' with the vision to transform e-Governance for transforming governance would be discussed today. It has been circulated earlier and comments/suggestions of various Ministries / Departments have been received. He stated that some states are performing better than Central Ministries / Departments in e-governance services and expressed the need for a joint effort to upscale e-governance initiatives in the central Ministries/Departments.

4. **Secretary, DeitY** made a presentation on the National e-Governance Plan. He mentioned about the actions taken on various decisions in the last Apex Committee meeting. This was followed by a review of Mission Mode Projects with special focus on PDS, Employment Exchange and India Post MMPs, NeGP 2.0 and discussion on RFD style Monitoring of MMPs. The presentation is at **Annexure 2**.

The discussion on various agenda items is summed up below –

5. **Agenda 1: Action Taken Report**

5.1 **Impact Assessment of NeGP:** Third party impact assessment is undertaken periodically. 9 MMPs and 3 e-Gov initiatives have been covered from 2007 to 2010. Moreover, Performance Audit of DeitY's scheme under NeGP has been conducted by CAG, recently in 2014. Further, Secretary, DeitY apprised the Apex Committee regarding steps being taken for incorporating qualitative aspects of e-Gov transactions in the new version of e-Taal, i.e. "e-Taal 2.0". These would include concepts like richness of workflow, use of digital signatures, e-Payment integration, mobile enablement, local language interface, integrated services, real time data updates vs batch mode updates, mandatory digital service, number of visits required for availing service, etc. to capture various attributes on quality of e-transactions.

5.2 **HR Policy** – A draft Cabinet Note for creation of positions of Chief Information Officers (CIOs) in Central Ministries has been circulated. Further, Secretary, Deity informed that Cabinet Secretary through D.O. letter dated 23rd December, 2013 has asked DoPT to issue necessary instructions on placement of Dedicated Mission Leader with assured tenure and required administrative and financial empowerment. A comprehensive note detailing the aforesaid requirements has also been provided to DoPT for issuing necessary instructions in this regard. He also mentioned that a National e-Governance Academy is proposed to be set up as recommended by the Expert Committee on HR Policy on e-Governance. Several participants sought greater clarity about the role of CIO and its functional relationship with the Government Departments. Secretary, Planning Commission stated that there is a need to improve coordination and integration amongst various stake holders. She suggested that there is a need to form a small group with members from DeitY, DoPT, DoE and DAR&PG to discuss various issues related to the proposal for appointment of CIO in Central Ministries / Departments.

i. Mission Director, e-Governance stated that one important issue was regarding the shortage of IT resources within the Departments and there is a need to engage young professionals to assist in this effort.

ii. Secretary, Department of Agriculture suggested that the NIC team and Project Management Unit (PMU) should converge at the level of JS to have a coordinated effort towards the progress of the project.

iii. Secretary, DeitY responded that the CIO's position in the departmental structure has been clearly elaborated in the cabinet note, and to further clarify various issues related to role of CIO and his relationship with the Ministries, a small group would be constituted as suggested by the Secretary, Planning Commission.

5.3 **RFD Style Agreement** - Secretary, DeitY informed that a draft template on formulation of action plan for 'e-Governance' initiatives, which would culminate into an RFD style framework,

had already been shared with Secretary, PMD for consultation with various MMP Ministries / Departments for finalization of action plans.

5.4 **e-Procurement –** Secretary, DeitY mentioned that instructions have been issued by the Department of Expenditure for mandatory usage of end to end e-Procurement solution. The threshold for this tender value has been reduced to Rs. 5 Lakhs with effect from 1-4-2015 and further down to Rs. 2 lakhs with effect from 1-4-2016. Special Secretary, MEA mentioned that MEA has been implementing mandatory publication of tender documents on CPP Portal since March, 2013. While the results have been positive in respect of the tenders published by MEA, it has not been the case with the tenders published by the Indian Missions / Posts abroad. He mentioned that MEA has taken has taken up the issue of exemption of Indian Missions / Posts (excepting all cases where Indian companies are eligible to bid) from the requirement of posting tender enquiries on the CPP Portal and for moving towards an end-to-end procurement process on an e-platform with the Department of Expenditure. The Apex Committee noted the request of MEA to exempt Indian Missions / Posts (excepting all cases where Indian companies are eligible to bid) from the requirement of posting tender enquiries on the CPP Portal and for moving towards an end-to-end procurement process on an e-platform, and requested the Department of Expenditure for an early clarification.

5.5 **e-Office** – Secretary, DeitY mentioned about the e-File creation and movement during the last 3 years and the top 10 Departments / Organizations in usage of e-File. Concerns were raised over the network security of e-File movement, hardware issues, digitization, etc. He stated that NIC would be advised for appropriate resolution of issues related to network security, digitization, hardware capacity, bandwidth availability, etc. to handle the growing demand for e-Office.

5.6 **Education and Health MMPs -** Secretary, DeitY informed the Committee that EFC note for Education MMP has been circulated. Secretary, Department of Education stated that the DPR would be finalized after resolving the issues related to allocation of funds for the Education

MMP and the next step would be to circulate a DCN. JS, Department of Health mentioned that the DPR for Health MMP would be finalized by 31.3.2014.

5.7 **Inter Operable Criminal Justice System (ICJS)** – Secretary, DeitY informed that a technical proposal for undertaking ICJS Pilot project has been prepared. The Nodal Ministry however needs to be finalized, so that action can be taken to implement the pilot.

6. **Agenda 2: Status of the Mission Mode Projects** - Secretary, DeitY informed the committee that out of the 31 MMPs, 24 have commenced delivery of either full or a partial range of the envisaged services. Four MMPs, namely, Crime & Criminal Tracking Network and Systems (CCTNS) for Police, Public Distribution System (PDS), India Post 2012 and e-Panchayat are under implementation and are in the process of rolling out services to citizens. He also added that 2 MMPs, namely, Health and Education are at Scoping stage and 1 MMP, i.e. Employment Exchange is under Design and Development. A status update on the progress of services

delivered by various MMPs was also presented.

6.1 Secretary, DeitY presented an overview of the major achievements of NeGP during the year 2013-14, which included launch of GI Cloud, Mobile Seva, Localization, e-Gov AppStore, e-Taal Dashboard and Open Government Data Platform.

6.2 Secretary, Planning Commission suggested that a separate meeting / workshop may be conducted for sensitization of various officers in Planning Commission, so that they may be aware about the new initiatives of DeitY. Secretary, DeitY assured that such a workshop would be organized soon.

6.3 Several members of the committee requested for support to make Cloud implementation the default mode for all new MMPs and e-Governance initiatives. Secretary DeitY observed that a meeting / workshop on Cloud Platform would be organized for all Ministries / Departments including Planning Commission to explain the features, capabilities and way forward for implementing Cloud by default. Moreover, a separate meeting / workshop would be arranged for all Ministries / Departments including Planning Commission on other e-Gov initiatives viz. Mobile Seva, e-Pramaan, e-Taal, Standards, National Service Delivery Gateway, etc. Secretary, DAR&PG mentioned that they would require support of DeitY for ensuring Cloud enablement of their 2 e-Governance initiatives viz. Sankalp and Bhavishya.

6.4 In order to create awareness about the new initiatives, it was agreed that senior officers and NIC team stationed in Ministries should proactively sensitize the Joint Secretaries/Mission Leaders concerned about DeitY's new initiatives.

6.5 A brief presentation was made on the 3 MMPs, i.e. PDS, Employment Exchange and India Post by the respective departments highlighting the progress of these MMPs.

7. **Agenda 3: e-Kranti –** The document of NeGP 2.0 titled 'e-Kranti' was approved in principle. It was decided that DeitY would prepare a Detailed Project Report (DPR) followed by a Draft Cabinet Note (DCN) in about 4 months time. Moreover, DeitY would also propose a way forward for NeGP 2.0 to be built on the existing framework of NeGP. In principle approval for inclusion of nine suggested MMPs in 'e-Kranti' document and one additional MMP titled 'Common IT Roadmap for Para Military Forces (by MHA)' was accorded by the Apex Committee. The list of the proposed 10 MMPs is at **Annexure 3**.

7.1 The representative of UIDAI stated that since almost 60 crore Aadhar numbers have been issued, it would be appropriate if Aadhar could now be a unifying unique identity in all e-Governance initiatives. Secretary, DeitY clarified that linkage of UID in all MMPs wherever required is suggested as a key component in the 'e-Kranti' concept note.

8. **Agenda 4: Inter Operable Criminal Justice System (ICJS) –** MD, e-Gov stated that technical support from DeitY would be provided in conceptualization, design and roll out of the project. Secretary, DOJ expressed concern about the ownership of ICJS by DoJ as two of its components

viz. Police and Prisons pertained to MHA. She therefore suggested that ownership of ICJS should be taken up by MHA. Joint Secretary, MHA stated that MHA would positively consider being the nodal ministry for ownership of ICJS. However, it was felt that since 'e-Committee' has already been looking after the coordination of ICJS, DoJ would be more appropriate as the nodal Ministry. It was felt that the issue related to the ownership could be further discussed in a meeting under the chairmanship of Cabinet Secretary. DoJ was requested to prepare a Concept Note for to the aforesaid meeting. The Presentation on ICJS is at **Annexure 4**.

8.1. ADG, DGFT (D/o Commerce) made a presentation on the 'e-Trade' project, which included the status of message exchange amongst various 'e-Trade' network partners. A mention was also made about 'e-BRC' Project which has been a latest significant inclusion under the 'e-Trade' MMP for on-line reconciliation of foreign exchange and grant of foreign trade benefits seamlessly. It was further informed that the 'e-BRC' project was also awarded UN-AFACT award for trade facilitation in Nov, 2013. It was requested that message exchange by certain other network partners viz. Customs, Seaports, Airports, CWC, Container Corporation of India, etc. need to be accelerated for completing the entire import / export cycle for an end to end solution. Further wherever Digital Signature usage has been incorporated, Central Excise and Customs should dispense with the requirement of the paper documents. The presentation is at **Annexure 5**.

9. **Agenda 5: RFD Style Monitoring of Mission Mode Project** – Secretary, DAR&PG suggested that RFD should carry some weightage for the performance of ministries in the implementation of e-office. Secretary, DeitY informed that the suggestion on e-Office has been forwarded to Secretary, PMD.

10. **Agenda 6: Other issues**

10.1 **e-Governance Impact Index** – Secretary, DAR&PG mentioned about the requirement of an evaluation framework for benchmarking and performance evaluation of e-Governance initiatives across Centre / State levels. In addition, such framework would also facilitate in adjudication of national level e-Governance awards. Secretary, DeitY clarified that an e-Governance Impact Index has also been envisaged in the 'e-Kranti' document, which will enable evaluation of e-Governance initiatives holistically.

10.2 **Inclusion of Exchange Rate Variation (ERV) in RFP** – Secretary, DOJ expressed concern over delay in procurements in the 'e-Court' project due to Exchange Rate variation. JS (DoE) stated that an ERV clause needs to be incorporated in the RFP to handle such situations as already advised through DoE's instructions. It was felt that since other MMPs may be also facing these challenges, DoE may provide an appropriate solution on this issue so that ongoing e-Governance projects do not suffer on account of delay in procurement of hardware. However, the Ministries / Departments need to factor-in the ERV clause in the RFP in future procurements.

11. After discussions, the following were endorsed by the Committee:

i. A small group under Secretary, DeitY with members not below the level of JS from DoPT, DoE and DARPG should be constituted to discuss various issues related to the proposal for appointment of CIO in Central Ministries / Departments as recommended under the proposed HR Policy.

[Action – DeitY, DoPT, DoE and DARPG]

ii. In order to fast track the adoption of 'e-office' for interdepartmental movement of e-files, issues related to a secure communication channel, digitization, server capacity, bandwidth availability, etc. should be analysed and resolved. 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.

[Action – DeitY, DG-NIC]

iii. The issue of ownership of ICJS should be discussed in a meeting under the chairmanship of Cabinet Secretary. DoJ will prepare a Concept Note detailing the issues regarding ownership for discussion in the aforementioned meeting.

[Action – DeitY, DoJ, MHA]

iv. A workshop on Cloud Platform would be organized by DeitY for all ministries / departments to explain the features, capabilities and way forward for implementing Cloud by default.

[Action– DeitY, NIC]

v. DeitY would organize a workshop on the new e-initiatives in e-Governance for all Ministries / Departments and Planning Commission.

[Action– DeitY]

vi. Timelines for ongoing MMPs should be fixed and outcomes elaborated by all Ministries / Departments. DeitY would obtain the aforesaid information and submit a comprehensive report to Cabinet Secretary in about 2 weeks time. DeitY would also suggest a way forward for NeGP 2.0 ('e-Kranti') to be built on the existing framework of NeGP coinciding with the Plan Period.

[Action– DeitY]

vii. 'e-Kranti' document was approved in principle. DeitY would prepare a DPR followed by a DCN by 30.6.2014.

[Action– DeitY]

viii. In principle approval was accorded to the nine suggested MMPs mentioned in 'e-Kranti' and an additional MMP, i.e. Common IT Roadmap for Para Military Forces (by MHA). The list of 10 aforementioned MMPs is at **Annexure 3.** The component of social benefit proposed by the DG, Employment Exchange may be subsumed under the proposed 'Social Benefits' MMP.

[Action– DeitY]

ix. A standard mechanism should be established for expeditious replication of e-Governance projects across the country to enable horizontal replication of proven, standardized and productized e-Governance applications.

[Action– DeitY]

x. The three Mission Mode Projects, viz. PDS, Employment Exchange & India Post in the Design and Development stage should be expedited.

[Action– Dept. Of Food & Public Distribution, Employment Exchange and Dept. of Post respectively]

xi. The message exchange by all 'e-Trade' network partners viz. Customs, Seaports, Airports, CWC, Container Corporation of India may be expedited for a seamless end to end import / export cycle and paper documents be dispensed where the digitally signed exchanges take place.

[Action– 'e-Trade' MMP / Do Commerce]

xii. In view of the recent instructions from Department of Expenditure (DoE), dated 9th January, 2014 on end to end adoption of e-procurement solution, all Ministries / Departments should adhere to these instructions. Further, regarding the Indian missions abroad, the issues with regard to mandatory adoption of e-procurement would be examined and finalized by DoE at the earliest.

[Action– DOE, All Ministries / Departments]

12. **CEO, NeGD** thanked the Chairman and members of the Apex Committee and all the participants for their contribution to the discussions.

Annexure 2: List of MMPs

List of existing MMPs:

Table-I: Mission Mode Projects Central Government Category

S.No.	Projects	Line Ministry/ Department Responsible
01	Income Tax	Ministry of Finance/Central Board of Direct Tax
02	Passport	Ministry of External Affairs
03	Immigration, Visa and Foreigner's Registration & Tracking	Ministry of Home Affairs
04	MCA21	Ministry of Company Affairs
05	Insurance	Dept. of Banking
06	Unique Identification Project	Ministry of Home Affairs/Registrar General of India (RGI)
07	Central Excise	Department of Revenue/Central Board of Excise & Custom
08	Pensions	Dept. Of Pensions & Pensioners welfare & Dept. Of Expenditure
09	Banking	Dept. Of Banking
10	e-Office	Department of Administrative Reforms & Public Grievances
11	India Posts	Dept. Of Posts

Table-II: Mission Mode Projects State Government Category

S.No.	Projects	Line Ministry/ Department Responsible
01	Land Records	Ministry of Rural Development
02	Road Transport	Ministry of Road Transport & Highway
03	Property Registration	Department of Land Resources/ Department of Information Technology
04	Agriculture	Department of Agriculture & Cooperation
05	Treasuries	Ministry of Finance
06	Municipalities	Ministry of Urban Development and Poverty Alleviation
07	Gram Panchayats	Ministry of Panchayati Raj
08	Commercial Taxes	Ministry of Finance

09	Police (UTs initially)	Ministry of Home affairs
10	Employment Exchanges	Ministry of Labour & Employment
11	e-District	Department of Electronics & Information Technology
12	Health	Ministry of Health and Family Welfare
13	Education	Ministry of Human Resource Development

Table-III: Mission Mode Projects Integrated Services Category

S.No.	Projects	Line Ministry/ Department Responsible
01	EDI (E-Commerce)	Ministry of Commerce & Industry/ Department of Commerce
02	e-Biz	Department of Industrial Policy & Promotion / Department of Information Technology
03	Common Services Centres	Department of Electronics & Information Technology
04	India Portal	Department of Information Technology and Department of Administrative Reforms & Public Grievances
05	National Service Delivery Gateway	Department of Electronics & Information Technology
06	e-Courts	Department of Justice, Ministry of Home Affairs
07	e-Procurement	Ministry of Commerce & Industry/ DGS&D

Table-III: List of 10 proposed MMPs, accorded in Apex Committee Meeting on 18.3.2014.

S.No	Projects	Line Ministry/ Department Responsible
01	e-Sansad	Parliament of India, Lok-Sabha Secretariat
02	e-Vidhaan	Parliament of India, Lok-Sabha Secretariat
03	Financial Inclusion	Deptt. of Financial Services
04	Roads and Highways Information System (RAHI)	Ministry of Road Transport & Highways

05	Agriculture 2.0	Department of Agriculture & Cooperation
06	NGIS	Dept. of Science & Technology
07	Rural Development	Dept. of Rural Development
08	Social Benefits	Ministry of Social Justice and empowerment
09	Women and Child Development	Ministry of Women and Child Development
10	Common IT Roadmap for Para- Military Forces	Ministry of Home Affairs

Table-IV: Support Components Category

S.No.	Support Components	Line Ministry/ Department Responsible
01	Core Policies	Department of Electronics & Information Technology
02	Core Infrastructure (NII2.0, GI Cloud, e-Pramaan, NKN, SWAN, NICNET, SDCs, etc.)	Department of Electronics & Information Technology
03	Support Infrastructure (CSCs, etc.)	Department of Electronics & Information Technology
04	Technical Assistance	Department of Electronics & Information Technology
05	R&D	Department of Electronics & Information Technology
06	Human Resource Development & Training	Department of Electronics & Information Technology and Department of Administrative Reforms & Public Grievances
07	Awareness & Assessment	Department of Electronics & Information Technology and Department of Administrative Reforms & Public Grievances

Annexure 3: Constitution of Apex Committee on NeGP

(Ref. Para No. 4.2.1 & 4.3.2(iii))

No.171/2/1/2004-CA.V
CABINET SECRETARIAT
RASHTRAPATI BHAWAN
****

Dated the 23rd August, 2004

Subject:- Constitution of an Apex Committee for the National e-Governance Action Plan.

With a view to overseeing and providing policy directions for the implementation of the National e-Governance Action Plan and ensuring inter-ministerial coordination, it has been decided to constitute an Apex Committee.

2. The composition of the Apex Committee shall be as under:-
    i. Cabinet Secretary - **Chairman**
    ii. Finance Secretary - Member
    iii. Secretary, Department of Expenditure - Member
    iv. Secretary, Planning Commission - Member
    v. Secretary, Department of Personnel & Training - Member
    vi. Additional Secretary, Department of Administrative - Member Reforms & Public Grievances
    vii. Secretary, Department of Information Technology - **Member Convener**

    3. The Apex Committee would be free to co-opt other Members, as and when considered necessary.

4. The Committee will be serviced by the Department of Information Technology.

Sd/-
(Pravir Krishn)
Director
Tel.:23792204

To
All Members of the Apex Committee
Copy for information to :-
CS/Secy©/AS/JS(AM)/JS(M)/JS(AKD)/JS(SS)/Dir(RR)/Dir(RKC)/Dir(PK)

Annexure 4: Constitution of National Advisory Group on eGovernance

No. 1(11)/2004-EGD.
Government of India
Ministry of Communications & Information Technology
Department of Information Technology
Electronics Niketan
6, CGO Complex

New Delhi- 110003
Dated : 29th March, 2005

OFFICE MEMORANDUM
Subject: **Constitution of a National Advisory Group on E-Governance.**

The Department of Information Technology has recognize the need for setting up a National Advisory Group on E Governance to advise the government on policy issues and strategic interventions necessary for accelerating introduction of E- Governance across Central and State Government Ministries/Departments. The group would specifically advise on issues relating to the implementation of the National E- Governance Action Plan and the various Mission Mode Projects (MMPs) which are under implementation as part of the Plan. This would include broad policy and strategy to be adopted at the programme level to ensure successful and speedy implementation of the Plan., including among other things, issues relating to objective setting, phasing and implementation methodology for MMPs, issues relating to standards and interoperability, ways to coordinate implementation and minimize overlaps between MMPs and options to augment capacity of all departments and/or State Governments to ensure better implementation of the programme.

2.   It has been decided with the approval of the Competent Authority to constitute a National Advisory Group on E-Governance. The membership of the Advisory Group shall be as follows :-

> 1) Minister, Communications and Information Technology: Chairman
> 2) Secretary, DIT
> 3) Secretary, DOT
> 4) Additional Secretary, DAR&PG
> 5) Additional Secretary, Cabinet Secretariat
> 6) Representatives from PMO
> 7) DG, NIC
> 8) CEO, NISG
> 9) Representatives from Central Government: Director General (Systems), Central Board for Excise & Custom, Income Tax Department; Registrar General of Census of India, MHA.
> 10) State IT Secretaries: Kerala, Tamil Nadu, Maharashtra, Uttaranchal, Uttar Pradesh, West Bengal, Assam, Rajasthan, and Delhi.

11) Representatives from IT industry: K.S. Viswanathan, Vice President, Wipro; S. Ramadorai, (TCS); President ,NASSCOM.

12) Representatives from Consulting Agencies: Pramat Sinha, Head IT Consulting, McKinsey; Roopen Roy, CEO, PWC.

13) Representatives from Private Sector and NGOs: Ashok Khosla, Development Alternatives; Dr MS Swaminathan, Yogi Deveshwar Chairman, ITC.

14) Representatives from Academia: Professor, B. Phatak, IIT Bombay; Professor, S. Bhatnagar, IIM Ahmedabad.

15) Joint Secretary, E-Governance Division : Member Convenor

3. The group shall meet once every quarter and not less than once every six months. The working group notified vide OM NO. 1(11)/2004-EGD dated 27.01.2005 shall assist the National Advisory Group on E-Governance.

4. The Chairman may co-opt other members as and when deemed necessary.

Sd/-

(S. **Abbasi)** Director