Basing on the experience with NeGP and also on the forgoing analysis, it is proposed to suggest a set of principles that can guide the design and implementation of the e-Kranti Program.

## 1. Transformation and not Translation

- a. Any project proposal to be included in e-Kranti should satisfy the prerequisite 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 most advisable 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 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.

2. Integrated Services and not Individual Services: Most of the e-Governance projects within and outside the NeGP have not only identified services purely from the point of departments/agencies but also implemented them in the same manner. The result can be seen in the fact that for securing a particular e-Service the citizen or business has to secure a number of other certificates and documents and attach the same to the application for the e-Service. Some of these attachments are issued by authorities outside the department providing the particular e-Service. The solution lies in conceptualizing, designing and implementing a set of services which are cross- cutting and integrated. The only MMP which conceptualized such integrated and cross-cutting services, namely the eBiz project, has gone through innumerable problems in implementation, on account of lack of a shared conviction on the immense benefits of such integrated services. However, it has to be said that there has been a significant progress in terms of integrating the frond-end delivery points for providing a number of citizen services across the same counter. Following eSeva implemented in Andhra Pradesh during 1999-2003, a number of other States have come up with integrated front end delivery systems. However, the need of the hour is to establish a common middleware, and integrate the back end processes and processing systems. 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 Unique ID for identification of residents, and the use of e-Pramaan framework developed by DeitY for authentication of individuals, are recommended in this direction.

- 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 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.

- **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 the data centre with its own hardware and software, the 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. It is possible to achieve 'Infrastructure on Demand' by taking advantage of the significant technological advancements that have taken place in the recent years. While the National Optical Fibre Network project undertaken by the Department of Telecommunications, Govt. of India holds the promise of resolving the connectivity problems by taking gigabit fibre to the villages, it would still address only a part of the bigger dream of establishing infrastructure on demand. To this end, the initiative taken by DeitY, namely, National Information Infrastructure (NII), which is at an advanced stage of conceptualization, needs to be fast-tracked and looked at seriously for acceptance/approval and implementation.
- 5. Cloud by Default: 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. Government Cloud shall be the default cloud for Government

Departments. Any Government Department may use a private cloud only after obtaining permission from Department of Electronics and Information Technology which shall do so after assessing the security and privacy aspects of the proposed cloud. The National Cloud Computing Initiative, named Meghraj, is about to be launched by NIC, in its pilot form. This effort needs to be evaluated, strengthened and expanded both in terms of scope and technology. Very shortly the principle "Cloud by Default" should be well established in India. Complementing the Meghraj would be the efforts to establish an eGov App Store, which hosts 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 eGov Application Directory and an eGov 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).

6. Mobile First: 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. Low cost handsets, smart phones and low cost tablets will 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 the mobile device as the most preferred option.

- 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-Gov 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.
- 8. Mandating Standards and Protocols: Currently, there are certain generic standards notified by DeitY through executive orders. 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 standards. This should include the generic standards that DeitY develops as also the domain specific standards that line ministries develop. An Institute for e-Gov 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 Institute for e-Gov Standards, the following complementary steps are recommended.
  - A set of Reference Architecture Models has to be designed, incorporating the cutting edge technologies and global/ national standards.
  - b. 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.

The Chief Information Officers of various ministries, and the senior architects of NIC, State Governments and of the IT companies participating in eGov projects should be exposed to the latest trends in technology developments on a half-yearly basis.

- **9. Language Localization**: 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.
- 10.National GIS: 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.
- 11. Security and Electronic Data Preservation: The online applications and eservices should adhere to prescribed security measures including cyber security. For this purpose, the National Cyber Security Policy 2013 notified by DeitY should be followed.

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.