

A. Understanding the Training Needs of the District Officials

To achieve the aforementioned project objectives, it was deemed essential to first understand the competency based roles (job-profile), the existing level of ICT exposure as well as the specific ICT based training needs and expectations of district level officials, keeping in view the e-Governance Competency Framework for Digital India (eGCF, NeGD, 2014). To accomplish this, IIPA has conducted a quick research. This preliminary research was conducted through dedicated interaction with the participants of the existing trainings run by IIPA for district level officials. Based on the findings of this assessment, it was reaffirmed that the district level officials function broadly in three main areas, classified in following three role based categories:

1. **Leader Roles:** District officials responsible for ‘Decision making for Policy and Program Implementation’.
2. **Domain Expert/ Line Manager Roles:** District officials responsible for ‘Management and Administration of Government Programs and Services’.
3. **Project Management Roles:** District officials responsible for ‘Deployment, Usage and Maintenance of ICT based Platforms for Delivery of Public Services’.

The basic job profile and training needs to be identified for each of these categories of district officials are briefed herewith.

Training Needs of Leader Roles

This is the category of those district officials who are at senior/middle level in the district such as District Collectors, District Magistrates, Chief Executive Officers, Chief Planning Officers and District Revenue Officers, who are responsible for decision making and policy implementation in districts. This category of district officials requires inputs to set priorities for local development and take decisions for their respective districts. Therefore, the training program(s) to be designed for this category of district officials must make them aware of not only e-Governance basics and architecture or the local level/ state e-governance initiatives but also insights into software contract management for PPP, various technology trends, IT related policies, IT Act and Rules, related schemes and government programs of their line departments and for those which have direct bearings on department's performance and functioning.

Training Needs of Domain Expert/ Line Manager Roles

This target group of district officials consists of line heads of various offices responsible for successful service delivery such as heads of municipal services, health, education, elections, law and order. Examples of this category are District *Panchayat* Officers, District Educational Officers, District Medical and Health Officers, and Chief Election Officers, District Revenue Officials who are involved at Financial/Commercial Management Role or with Citizen Engagement Role. These officials therefore, need to be given an overview of e-governance and then need to be trained on the application of ICT and new media technologies for delivering the specific public services they are associated with. They could also be trained on System Requirements Specification –SRS, Functional Specifications Document (FSD) and Detailed Project Report (DPR) with aspects of ICT in managing various activities such as human resources, budgeting and accounting, procurement and records management of their respective offices.

Training Needs of Project Management Roles

The third target group of district officials includes heads of information services and systems as well as technical staff who are involved with implementation of Information Technology (IT) and Information Systems (IS) in a district such as District Informatics Officers (DIOs) from National Informatics Centre (NIC) or Chief Technology Officers (CTOs) or officials in Technical Architect role or Project Management role in Change and Training

Management aspects of ICT implementation. These officials primarily handle the ICT aspect of the projects under Digital India programme under their charge as well as deploy, use and maintain several independent information systems pertaining to specific functional needs of their offices in the district. The training for this group, therefore will consist of imparting technical and operational knowledge related to ICT and e-governance. They must be specifically imparted skills on how to leverage the existing telecommunication and connectivity options as well as must be trained on managing IT systems at the district level. The training content provided for this group of district officials could also be used for training other technical professionals involved in the application of ICT in common service centres (CSCs) and non-government organisations (NGOs) operating in the district.

B. Organising the Proposed Content: A Modular Approach

Keeping in view the diverse training expectations of the district officials summarised in the previous section (Section- C) as well as respecting the time constraints of senior and middle level district officials, the proposed end-user training for the district officials will be organized in a modular manner. The course modules will be prepared to align the capacities of the district officials to the Digital India vision that has National e-Governance Plan 2.0 (NeGP 2.0) assists sub set. Keeping DI as the overarching guiding force, overall four modules have been proposed. This would provide the district officials with the choice of picking up the module of their choice, with the compulsion of each of them expected to complete Module-I compulsorily.

Detailed Description of Course Modules

The first module is the core foundation module on e-Governance ‘that would provide all the district officials with the basic understanding of e-Governance implementation, NeGP and overview of Digital India

Module II would comprise of regulatory structure for IT and e-Governance in India; talking about IT Act 2000 and its Amendments, Policies, Frameworks and Guidelines. Further, Module III would be projecting on Digital India initiative covering all the dimensions pertaining to its infrastructure, implementation methodology and way forward. Module IV would be focusing on e-Kranti as one of the pillar of DI; delineating NeGP with all its principal components. All the district officials shall be expected to undergo the basic module (Module-I) but subsequently, choices are available in other modules depending in the job roles. However, the ATI trainers shall be exposed to all the training modules to equip them with knowledge and skill of all aspects of e-governance/ ICT, e-Kranti and DI.

All the four course modules will be prepared in a standard format with clear instructions for the trainers on the methodology of teaching. The design of modules will be such that the same could be later converted easily into online training modules along with mechanisms for evaluating the participants both in class room and online formats.

Structure of the Course Modules

The standard structure of each course module will include following essential components:

- Module Title
- Module Code
- Prerequisites for trainees (Description of essential skill sets required)
- Bridging Material (to bring up laggards with the aware-trainees): To be developed both for the trainers and the trainees
- Duration for Completion
- Target Groups
- Purpose of the module/Learning Outcomes (What will the participants be expected to learn after the completion of the module)

- Module Contents
- Reading Resources

The detailed description of the modules envisaged for the project is sketched herewith.

Module I: Basics of e-Governance and Digital India Overview

- Module Code:DI001C
- Prerequisites for trainees: Basic knowledge of Computers, Office Automation, Internet.
- Suggested Duration for Completion: 5 to 7 Days
- Suggested Target Groups: Compulsory for All District level Officials

Background

In order to successfully implement innovative public service delivery initiatives, the officials at the district level are required to have good understanding of e-Governance aspects including National and Global Scenario, Trends and Technologies, Project Management. The knowledge of the same can help them to synchronize their efforts with National e-Governance Plan, Digital India and state government priorities. Further it will help district level officials to serve the citizens as per the global standards of public service delivery.

Objectives

1. The participants shall develop the skills relating to the fundamentals of e-Governance, National e-Governance Plan (NeGP) and Digital India.
2. The participants shall get essential information and knowledge on concepts of e-governance, national and global scenario, emerging ICT trends and technologies, challenges and opportunities and important aspects related to e-Governance Project Management as well.
3. In addition, the participants will know the phases of e-Governance Project Life Cycle, Business Models for implementing e-governance as well as various documents related to tendering and procurement.

Suggested Contents:

1. Introduction to e-Governance

- 1.1 Preamble
- 1.2 Understanding e-Government and e-Governance
- 1.3 e-Government Maturity Model
- 1.4 Global and National e-Government Scenario
 - 1.4.1 Global Benchmark (UN DESA e-Government Development Index)
 - 1.4.2 e-Government Assessment Framework 2.0 (eGAF) of India

2. Core Components of Good e-Governance

- 2.1 Management Components
 - 2.1.1 Citizen-Driven Governance
 - 2.1.2 Government Process Re-engineering (GPR)
 - 2.1.3 Change Management
 - 2.1.4 Knowledge Management
- 2.2 Technical Components
 - 2.2.1 Service Oriented Architecture (SoA)
 - 2.2.2 Agile Implementation Models
 - 2.2.3 Interoperability and Standards
 - 2.2.4 Quality Management Systems
 - 2.2.5 Green IT and IT Waste Management

3. e-Governance Technologies and Trends

- 3.1 ICT Basics and Procurement
- 3.2 Electronic Databases
- 3.3 Workflow Automation
- 3.4 The Third Platform (SMAC and Internet of Things)
 - 3.4.1 Social Media (Web 2.0 and Web 3.0)
 - 3.4.2 Mobile Platform (Smart Phones, Tablets)

- 3.4.3 Analytics (Big Data and Open Data)
- 3.4.4 Cloud (IaaS, PaaS, SaaS)
- 3.4.5 Internet of Things (IoT)
- 3.4.6 Digital Signatures
- 3.5 Geo-Spatial Information System (GIS)
- 3.6 Software Defined Network (SDN) and Ubiquitous Sensor Network (USN)
- 3.7 e-Commerce, SMS and Payment Gateways (RuPay, PayGov and Mobile Wallet)
- 3.8 Global ICT Trends influencing Governance

- 4. e-Governance Project Management**
- 4.1 Why e-Governance Project Management
- 4.2 E-Governance Project Life Cycle (eGPLC)
 - 4.2.1 Functional Requirements Specifications (FRS)
 - 4.2.2 Detailed Project Report (DPR)
 - 4.2.3 Request for Proposal
 - 4.2.3.1 Volume I: Functional and Technical Specifications
 - 4.2.3.2 Volume II: Bid Process & Commercial Specifications
 - 4.2.3.3 Volume III: Contractual and Legal Specifications
 - 4.2.4 Service Level Agreement (SLA) and Service Level Management
 - 4.2.4.1 Why SLA?
 - 4.2.4.2 Key Definitions
 - 4.2.4.3 Practical problems in SLA Definition & Management
- 4.3 Procurement in e-Governance Projects
 - 4.3.1 e-Governance Projects Procurement Process
 - 4.3.2 Procurement Modes
 - 4.3.2.1 Two Stage Competitive Process
 - 4.3.2.2 Single Stage Competitive Process

- 4.3.2.3 Request for Quotes
 - 4.3.2.4 Procurement from Rate Contracts
 - 4.3.2.5 Single Sourcing / Nomination
 - 4.3.3 Evaluation of E-Governance Bids/Proposals
 - 4.3.3.1 Pre-Qualification Evaluation
 - 4.3.3.2 Technical Evaluation
 - 4.3.4 Selection Methods for Evaluation of E-Governance Projects
 - 4.3.4.1 Quality and Cost based Selection (QCBS)
 - 4.3.4.2 Quality Based Selection (QBS)
 - 4.3.4.3 Least Cost Selection (LCS)
 - 4.3.4.4 Fixed Budget Selection (FBS)
- 4.4 Contract Development and Management for e-Governance Projects
 - 4.4.1 Project Specific Information
 - 4.4.2 General Conditions of the contract
 - 4.4.3 Special Conditions of the Contract
 - 4.4.3.1 Specific Contract Considerations in Software Development Projects
 - 4.4.3.2 Specific Contract considerations for Service delivery and PPP projects
- 4.5 Financial Management in E-Governance Project
 - 4.5.1 Financial Management before Implementation
 - 4.5.2 Financial Management During and After Implementation of e-Governance Project
- 4.6 Financing e-Governance Projects

- 4.6.1 Options for Financing E-Governance Projects
 - 4.6.1.1 Public Finance
 - 4.6.1.2 Private Finance
 - 4.6.1.3 Project Finance
- 4.6.2 Models for Financing E-Governance Projects
 - 4.6.2.1 Conventional
 - 4.6.2.2 Outsource
 - 4.6.2.3 Public Private Partnership (PPP)
 - 4.6.2.4 Build, Own, Operate, (Transfer) BOO (T)
 - 4.6.2.5 Privatised

4.7 e-Tendering and e-Procurement

5. e-Governance : Challenges and Opportunities

- 5.1 e-Governance Challenges canvas
 - 5.1.1 Digital Divide
 - 5.1.2 Information Security and Assurance
 - 5.1.3 Dichotomy of National Security and Individual Privacy
 - 5.1.4 Digital Preservation
- 5.2 Opportunities of e-Governance
 - 5.2.1 ICT for Development (ICT4D)
 - 5.2.2 Smart Governance
 - 5.2.3 New Urban Opportunities in India – Smart Cities

6. Overview of Digital India

- 6.1 Growth of e-Governance in India
- 6.2 National e-Governance Plan (NeGP)
- 6.3 Digital India

6.3.1 Vision

6.3.2 Pillars

6.3.3 Launch of DI : Digital India Week (DIW)

Expected Outcome of Module I

By the end of this module, officials will be able to:

- i. Understand the basic tenets, trends, issues and opportunities of ICT implementation in the processes of Governance.
- ii. Identify the maturity of ICT implementation in public sector from its initial phases of e-government to its final phase of achieving participatory e-governance using SMAC.
- iii. Identify the key management and technical components responsible for ensuring objectives of good governance through e-governance.
- iv. Understand the process of preparing and outsourcing software projects using RFPs, DPRs as well as prepare software contracts for outsourcing the related ICT based projects.

Module II: Policies, Frameworks and Guidelines related to e-Governance

- Module Code: DI0020
- Prerequisites for trainees: Successful Completion of Module I and Office Automation Skills
- Suggested Duration for Completion : 2 Days
- Target Groups : Leaders, Domain Experts

Background

An official can go for this module after clearing first module of e-governance. In this module officials are made aware of legal and regulatory aspects in e-governance by GoI.

Objectives

1. The participants will be able to understand legal and regulatory mechanisms and instruments related to e-governance.

2. The participants will be able to correlate their ground/ state reality with best practices prevalent in international and federal scenario.

Suggested Contents

1. Recap

- 1.1 Introduction to e-Governance and its components
- 1.2 e-Governance Technologies and Trends
- 1.3 e-Governance Project Management, Challenges and Opportunities
- 1.4 Overview of NeGP and Digital India
- 1.5 Conceptual Foundation: Acts, Rules, Bills, Policies, Frameworks and Guidelines

2. Act, Rules & Bills

- 2.1 IT Act, 2000 and its Amendments, 2008
- 2.2 ESD Rules
- 2.3 EDS Bill

3. Policies

- 3.1 National Policy on Information Technology, 2012 (NPIT 2012)
- 3.2 Policy on Adoption of Open Source Software for Government of India
- 3.3 Email Policy
- 3.4 Policy on Use of IT Resources
- 3.5 National Cyber Security Policy-2013 (NCSP-2013)
- 3.6 Policy on Open Standards (2010)
- 3.7 Policy on Collaborative Application Development by Opening the Source Code of Govt. Applications
- 3.8 Policy on Open Application Interface (API) for GOI (2015)
- 3.9 National Data Sharing and Accessibility Policy (NDSAP)
- 3.10 Policy for .IN Internet Domain Registration

3.11 National Policy on Electronics (2012)

3.12 Draft Policy on Internet of Things

4. Framework

4.1 Framework for Adoption of Open Source Software in e-Governance Systems (2015)

4.2 National e-Governance Plan (2006)

4.3 e-Kranti Framework (2015)

4.4 Framework for Mobile Governance (2012)

4.5 Framework for Social Media (2012)

4.6 Citizen Engagement Framework (2012)

4.7 e-Pramaan : Framework for e-Authentication (2012)

4.8 GI Cloud (GI Cloud Strategic Direction Paper and GI Cloud Adoption and Implementation Roadmap)

5. Guidelines

5.1 Guidelines for Capacity Building and Institutional Framework for e-governance under NeGP

5.2 Guidelines for Preparing a Project Proposal

5.3 Guidelines for Strategic Control in Outsourced Projects

5.4 Guidelines for Setting up of Dedicated Project Teams

5.5 NeGP Guidelines for Operational Model for Implementation of Mission Mode Projects by the Line Ministries/State Departments

5.6 Application Development and Re-Engineering Guidelines

5.7 Guidelines on Publishing e-Book

5.8 Approved Guidelines for registration in Gov.in domain

6. Work in Progress

Expected Outcome of Module II

By the end of this module, the officials will be able to:

- i. Understand the essentials related to IT ACT 2000 and its amendments, with specific reference to Section-3 related to e-Governance services.
- ii. Understand state specific application of ESD Rules.
- iii. To understand and apply the available policies, frameworks, and guidelines specifically related to IT, Electronic Delivery of Services and e-Governance.
- iv. Apply the nuances available as per EDS Bill for Grievance redress of citizens.

Module III: Digital India

- Module Code:DI003O
- Prerequisites for trainees: Successful Completion of Module I
- Duration for Completion : 2 Days
- Target Groups : Leaders, Project Management

Background

'Digital India' is an umbrella programme covering all line ministries and departments of GoI for e-governance transformation. Module III would be completely covering this DI program in order to elaborate its vision, pillars, infrastructural components and its prevailing and upcoming initiatives.

Objectives

1. To make participants proverbial with Digital India program to enable them for coping up with technicalities and functionalities of intrinsic programs.
2. The participants shall develop skills and thought process to select appropriate implementation options for effective service delivery in their respective districts individually and for Digital India collectively.

Suggested Contents

1. Recap

- 1.1 Introduction to e-Governance and its components
- 1.2 e-Governance Technologies and Trends
- 1.3 e-Governance Project Management, Challenges and Opportunities
- 1.4 Overview of NeGP

2. Digital India

- 2.1 Introduction
- 2.2 Vision Areas and Pillars

3. Implementing Digital India

- 3.1 Approach and Methodology
- 3.2 Programme Management Structure
- 3.3 Implementation Strategy
- 3.4 Institutional Mechanism

4. Projects/Schemes under DI

- 4.1 Early Harvest Programs
- 4.2 Mobile Governance : *Mobile Seva, Mobile Appstore*
- 4.3 Government Cloud : *GI Cloud*
- 4.4 Private Space in Public Cloud : *Digi Locker*
- 4.5 Jeevan Praman
- 4.6 e-Commerce, m-Commerce, SMS and Payment Gateways (RuPay, PayGov and Mobile Wallet)

5. Reforming Government through Technology (Pillar 4)

- 5.1 Government Process Re-engineering (GPR)

5.1.1 Basics of Re-engineering

5.1.1.1 Traditional Approach to e-Governance

5.1.1.2 Defining Re-engineering

5.1.1.3 Six Sigma

5.1.1.4 Service Quality Aspects

5.1.1.5 Differentiating Business Process Re-engineering (BPR) and GPR

5.1.1.6 Steps of GPR

5.1.2 Aspects of GPR in Digital India

5.1.2.1 Form Simplification and Reduction

5.1.2.2 Online Applications

5.1.2.3 Tracking and Interface between departments

5.1.2.4 Use of Online Repositories

5.1.2.5 Integration of Services and Platforms

5.1.2.6 Electronic Databases

5.1.2.7 Workflow Automation inside Government

5.2 Public Grievance Redressal

5.2.1 Case Study of Public Grievance Redress (SAKALA, CPGRAMS-IIPA Report Meekosam - Andhra Pradesh)

6. Implementing Digital India

6.1 Journey So Far

Expected Outcome of Module III

- i. On completion of this module, the participants will have the conceptual knowledge of Digital India and its various important elements.
- ii. Participants will have the information of various citizen centric and inclusive DI projects, schemes, services and mobile apps.

Module IV: e-Kranti

- Module Code:DI004C
- Prerequisites for trainees: Successful Completion of Module I
- Duration for Completion : 3 Days
- Target Groups : Domain Experts, Project Management

Background

This module emphasizes on e-Kranti / NeGP 2.0 intending to improve electronic delivery of services in all areas of governance. It would include all the prop of NeGP consisting of its vision, strategy, infrastructural and institutional components. Besides this, it will also include all Mission Mode Projects, newly principled mechanisms and newly formulated structure of NeGP.

Objectives

1. The participants shall come to know thorough knowledge of NeGP and e-Kranti with all their cardinal elements.
2. The participant shall be acquainted with the effective electronic service delivery in governance systems.

Suggested Contents

1. Recap

- 1.1 Introduction to e-Governance and its components
- 1.2 e-Governance Technologies and Trends
- 1.3 e-Governance Project Management, Challenges and Opportunities
- 1.4 Overview of NeGP and Digital India

2. National e-Governance Plan

- 2.1 Introduction
- 2.2 Vision

- 2.3 Implementation strategy
- 2.4 Institutional Framework
- 2.5 Mission Mode Projects (MMPs)
- 2.6 Infrastructural components of NeGP (including Mobile Governance: Mobile Seva & Government Cloud : GI Cloud)

3. Pillar 5 : e-Kranti – Electronic Delivery of Services

- 3.1 Need for e-Kranti
- 3.2 Evolution from NeGP to e-Kranti and its Differences
- 3.3 Vision, Mission and Objectives
- 3.4 Principles of e-Kranti
- 3.5 Approach and Methodology
- 3.6 Programme Management
- 3.7 Implementation strategy
- 3.8 Additional MMPs
- 3.9 State Specific Case Studies

Expected Outcomes for Module IV

At the end of this module, the participants will be able to:

1. Design, Implement and Monitor state specific MMPs.
2. Adopt best practices prevalent in other states, as applicable.